Plant 3D User Community Virtual Meet Up
10th December 2019

Martin Buss & Nabil Nougha
Designated Support Specialist & Technical Sales Specialist
Before we begin

Keep your line muted to reduce background noise, until you ask a question.

Have a question? Use the Questions box or raise your hand.

This webinar is recorded. The recording will be available at: https://customersuccess.autodesk.com/webinars
Martin Buss
Designated Support Specialist

- Premium Support Specialist at Autodesk since 2015.
- Mechanical engineer with experience in process engineering projects (power plant / pharma).
- Work experience with CAD piping applications like PDMS, PDS and Plant 3D.
- Supporting; Plant 3D, P&ID, BIM 360, Navisworks and AutoCAD.
Agenda

- Overview.
- Plant 3D News.
  - General Updates and News.
  - Working with distributed teams
  - Follow up Questions from last month.
- Open Discussion and Q&A.
Overview

Objective:

- To provide a routine engagement with the Plant Design Community in the local region.
- To foster a collaborative user community while increasing the understanding and knowledge of Plant 3D an associated tools and workflows.

Scope:

- Each session is intended to be a casual engagement, with a small portion for news and information followed by a more general discussion around the products and workflows. The discussion is hopefully driven from the users attending.
Safe Harbor Statement

- We may make statements regarding planned or future development efforts for our existing or new products and services. These statements are not intended to be a promise or guarantee of business results, future availability of products, services or features but merely reflect our current plans and are based on factors currently known to us. These planned and future development efforts may change without notice. Purchasing and investment decisions should not be made based upon reliance on these statements.

- Autodesk assumes no obligation to update these forward-looking statements to reflect events that occur or circumstances that exist or change after the date on which they were made. If this presentation is reviewed after 9 January 2020 these statements may no longer contain current or accurate information.

- This presentation also contains information, opinions and data supplied by third parties and Autodesk assumes no responsibility for the accuracy or completeness of such information, opinions or data, and shall not be liable for any decisions made based upon reliance on any such information, opinions or data.

- Autodesk’s partners frequently compete against each other in the marketplace, and it is critically important that all participants in this meeting observe all requirements of antitrust laws and other laws regarding unfair competition. Autodesk’s long insistence upon full compliance with all legal requirements in the antitrust field has not been based solely on the desire to stay within the bounds of the law, but also on the conviction that the preservation of a free and vigorous competitive economy is essential to the welfare of our business and that of our partners, the markets they serve, and the countries in which they operate. It is against the policy of Autodesk to sponsor, encourage or tolerate any discussion or communication among any of its partners concerning past, present or future prices, pricing policies, bids, discounts, promotions, terms or conditions of sale, choice of customers, territorial markets, quotas, inventory, allocation of markets, products or services, boycotts and refusals to deal, or any proprietary or confidential information. Communication of this type should not occur, whether written, oral, formal, informal, or “off the record.” All discussion at this meeting should be strictly limited to presentation topics.
Plant 3D News
AutoCAD Plant 3D Rogue Beta

- We are glad to announce AutoCAD Plant 3D Rogue Beta officially GO LIVE. It’s available on AutoCAD Customer Council now.

Can’t find the AutoCAD Customer Council? Email Plant3D.Beta.Team@autodesk.com to request access.

Now Closes March 18th
Plant 3D with the Experts

A global webinar series from your Autodesk Product Support Team.

Playlist Link
AutoCAD Plant 3D Community Virtual Meet-ups 2020

Share on social media with your colleagues

January session
Tuesday, January 14, 2020 | 2:00 pm US Eastern | 11:00 am US Pacific

February session
Tuesday, February 11, 2020 | 2:00 pm US Eastern | 11:00 am US Pacific
Did you miss last months meet-up?

Then don’t miss the recording to see Misha Belilovskiy present on;

Plant 3D Past, Current and the Future

Agenda (for all sessions):
- Introduction
- AutoCAD Plant 3D Past, Current and the Future (Misha Belilovskiy)
- Collaboration for Plant 3D with BIM 360 Docs Beta – What to expect (David Manning)
- Hot Tips from the Product Support (Vinod Balasubramanian)
- Q&A
- Onsite Community Conversations

Resources for all sessions:
- Presentation
- Recording
Autodesk University for Plant 3D Users

Online or Not?????

- **PM321767** - AutoCAD Plant 3D Virtual User Community Meetup—Not So Virtual!
- **ENR323525-L** - If You Build It! You Can Pipe It in AutoCAD Plant 3D!
- **ENR323208** - Things You Didn’t Know: Working More Efficiently with AutoCAD Plant 3D and AutoCAD P&ID
- **ENR323574** - Tying It All Together with AutoCAD Plant 3D and AutoCAD P&ID
- **PM323879** - Setup AutoCAD Plant 3D to Meet Your BIM Requirements
- **ENR3240-R** - What Now: Things You Are Missing in AutoCAD Plant 3D
- **PM324089** - Creating a Digital Twin Based on Forge and Industry Standards (DEXPI, OPC UA, and FMI)
Autodesk University Online

Weeks of Training, Free, On demand and from top Industry experts

https://www.autodesk.com/autodesk-university/au-online
Autodesk Group Network

Find other groups in your area and online

https://knowledge.autodesk.com/community/groups
Working with Distributed Teams
What does Collaboration Look Like?

How are people Collaborating?
What does Collaboration Look Like?

Small distributed design team using project transfers

Package Project → Connection Speed Critical → Unpack Project

Local files and SQLite database

Office A

Remote Office B

File Transfer Service

Local files and SQLite database
What does Collaboration Look Like?
A typical SQLite project stored on a network drive.

Office A

File Server
SQLite files

LAN

WAN
Connection
Speed Critical

One user
at a time

Remote Office B

No Local files

No Local files
What does Collaboration Look Like?

A typical SQLite project stored on a internet enabled syncing storage service.
What does Collaboration Look Like?

A typical network stored project supporting multiple users with SQL Server:
What does Collaboration Look Like?

A typical Autodesk Vault enabled project.
What does Collaboration Look Like?

Collaboration for Plant 3D synchronizes the local project files with the cloud project:

- Files Stored on BIM 360 Team
- Autodesk hosted SQL Server Database (Not Accessible)

Users only see BIM 360 Team

Local Collaboration Cache

Local Collaboration Cache
What does Collaboration Look Like?

Collaboration for Plant 3D synchronizes the local project files with the cloud project:

- **Local Collaboration Cache**
- **Files Stored on BIM 360 Docs**
- **Autodesk hosted SQL Server Database (Not Accessible)**

Users only see BIM 360 Docs.
## What is Collaboration for Distributed teams

<table>
<thead>
<tr>
<th></th>
<th>Multi-user</th>
<th>Global</th>
<th>Simultaneous Project Set-up</th>
<th>User Access Control</th>
<th>Ease of Admin</th>
<th>External Users</th>
<th>Manages Shared Content</th>
<th>Manages Tool Palettes</th>
<th>Version Control</th>
<th>Check-in &amp; Checkout</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferred Local SQLite project*</td>
<td>No</td>
<td>Yes*</td>
<td>No</td>
<td>NIL</td>
<td>Difficult*</td>
<td>Yes*</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Network Project (SQLite)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Some</td>
<td>Moderate</td>
<td>No</td>
<td>Yes***</td>
<td>Yes***</td>
<td>No</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Network Project (SQ Server)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Some</td>
<td>Moderate</td>
<td>No</td>
<td>Yes***</td>
<td>Yes***</td>
<td>No</td>
<td>No</td>
<td>High</td>
</tr>
<tr>
<td>Cloud Syncing Service (e.g. OneDrive)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Some</td>
<td>Difficult</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Medium</td>
</tr>
<tr>
<td>Autodesk Vault Project</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Moderate</td>
<td>Difficult</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>High</td>
</tr>
<tr>
<td>Collaboration for Plant (BIM 360 Teams)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Moderate</td>
<td>Simple</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Low</td>
</tr>
<tr>
<td>Collaboration for Plant (BIM 360 Docs) [Rogue Beta]</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>High</td>
<td>Moderate**</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Low</td>
</tr>
</tbody>
</table>

*While a transferred project appears to offer a lot of answers for collaboration it should be recognised that:
- project transfer times can be significant reducing access times.
- data corruption during transfer is a concern.
- only one person can access the project at a time.
- once transferred there is control over the project and access is lost (high Trust)

** Moderate selected due to complexity of BIM 360 Docs permissions, and the need to possibly learn the additional platform. The application and use is generally easy.

***Can be used to manage shared content for users if set-up correctly. i.e. Does not require additional manual tasks to update when required.

i Testing is being done by many people on using desktop connector for managing other content. But there is not a reliable definitive answer yet.
Plant 3D versions with Collaboration feature

Related Plant 3D versions and their cloud platforms

- Plant 3D 2018
- Plant 3D 2019
- Plant 3D 2020

BIM 360 Team

- Plant 3D 2021
- ...  

BIM 360 Docs*

*expected, public Beta already accessible for customers
What is the “best” way to collaborate?

The best way to collaborate, for you, is the way that meets the majority of your collaboration requirements in the easiest, most cost effective and reliable manner.
Have You Tried Collaboration for Plant 3D?
Share a Plant 3D Project for Collaboration

- A Plant 3D collaboration project starts with an existing non-collaboration project.

- 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.

- Following the check window, the share project window opens.

Choose your Hub
Select the BIM 360 Team Project
Click
Upload Project
Opening a project is different!

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

**Step 2:** Select the BIM 360 Team Hub, the BIM 360 Team project and finally the Plant 3D project.

**Step 3:** Wait for the files to download.
Editing a Project Drawing

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.

Double Left Clicking also opens the file like normal.
What About Shared Content?
What is Shared Content?

- In Plant 3D terms shared content is that which is contained in the specified “Shared Content” folder.

- The default location for standard installations is “C:\AutoCAD Plant 3D 2020 Content”

- What’s in the folder?
  - Project Catalogues and appropriate support files
  - Default Project Specs
  - Equipment parameter files
  - Other Support files

- In more general AutoCAD terms, it could also refer to other resources that are shared to ensure aid users by providing tools and resources that help maintain a consistency. For example Tool Palettes (also applicable to P&ID), profiles and Template drawings.
Considerations for Shared Content

Do I need to make my shared Content accessible?

- When working on a Collaboration for Plant 3D project, Plant 3D manages most files, but not all, that may be necessary in a collaborative user environment.

- System Administrators need to think about what resources or content may be need to be accessed by those not on the Internal local network, or other standard file share systems. Some example 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 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 that 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?
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).
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.

https://knowledge.autodesk.com/support/autocad-pid/learn-explore/caas/sfdcarticles/sfdcarticles/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 cannot 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.
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 Team, 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.

How to restore an older version of a drawing
Basic Introduction to Collaboration for Plant 3D

Webinar / Help resource

https://help.autodesk.com/videos/JoY3NoZzE60mo_nj274o73PlApQ0qi4q/video.mp4
What about working with other disciplines?
What about working with other project disciplines?

Some things to consider when working with other disciplines.

- What is driving the collaboration with other disciplines?
- How are they going to access the design files?
- Where are the other disciplines storing their files?
- How are the design files being consumed (used)?
- What level of access should they have (routine/milestone or live)?

- Object enablers – required by all non-Plant 3D users.
  - Alternatives: Export to AutoCAD or Export to DWF.
AEC Collection Integration Map
What to do with the files on Bim 360 Docs?

You are using Bim Docs as a cloud platform for collaboration, what else can you do?

- Docs acts as the „heart“ of the project
- Reviews/approvals of design models, documents with use of markups
- Clash detection
- Issue creation in the 3D models already during design phase, issue handling
- Using the models on the Field
- Field issue management
- And more information exchange workflows like RFI's, Transmittals, Submittals.
- Report from Docs
- Integrate with other data systems using Forge apps
Permissions management on Bim 360 Docs

Example

Permissions - SampleProject
- Users: 7  Companies: 0  Roles: 0

Name | Permission Level | Type |
--- | --- | --- |
Docs Project Admin | Folder Control | User |
Plant Project Admin | View/Download+Upload | Role |
Plant 3D Editor | View/Download | Role |
P&ID Editor | View/Download | Role |

Permissions - PID_DWG
- Users: 7  Companies: 0  Roles: 0

Name | Permission Level | Type |
P&ID Editor | View/Download+Upload | Role |
Plant 3D Editor | View/Download | Role |

Permissions - Plant_3D_Models
- Users: 7  Companies: 0  Roles: 0

Name | Permission Level | Type |
P&ID Editor | View/Download | Role |
Plant 3D Editor | View/Download+Upload | Role |
Question Follow up
Question Follow up

From November 12th 2019

Questions and Answers have been collated and published to the “Plant 3D Virtual Community Meetup Resource Store” for November 2019.

November 19th 2019

The Meetup in November was Broadcast live from Autodesk University Las Vegas. So the time and date have changed to accommodate this and there was only one session. Those attending Autodesk University are encouraged to attend in person.

The presentation has a number of links and references added to the last page for your reference. Please see the Presentation link below.

Agenda (for all sessions):
- Introduction
- AutoCAD Plant 3D Past, Current and the Future (Misha Belilovskiy)
- Collaboration for Plant 3D with BIM 360 Docs Beta – What to expect (David Manning)
- Hot Tips from the Product Support (Vinod Balasubramanian)
- Q&A
- Onsite Community Conversations

Resources for all sessions:
Presentation
Recording
All-November-2019-Q&A

https://d5g9htlq3qinq.cloudfront.net/article_files/files/000/000/060/original/Plant_3D_Virtual_Community_-_November_2019_-_Questions.pdf?1575872090
Open Discussion and Q&A

Raise your hand to ask your questions or add them to the Q&A panel.
Thank you... for getting involved
Reference Materials and Links

- Autodesk Knowledge Network
- Autodesk University
- Autodesk YouTube
  - Plant search Link
  - Autodesk AutoCAD Plant 3D
- Autodesk ANZ
  - AEC Collection –Let’s make a project
- In The Pipes
Plant 3D Virtual Community Meetup resources

by Customer Success Team • on November 21, 2018

Overview

Objective:
- To provide a routine engagement with the Plant Design Community in the local region.
- To foster a collaborative user community while increasing the understanding and knowledge of Plant 3D and associated tools and workflows.

November 6th 2018

APAC Session

Agenda:
- Overview
- Plant 3D News
- Follow up on Last months Questions
- Update 2019.1
- Open Discussion and Q&A

EMEA Session

Agenda:
- Overview
- Plant 3D News
- Follow up on Last months Questions
- Update 2019.1
- Open Discussion and Q&A

AMER Session

Agenda:
- Overview
- Plant 3D News
- Follow up on Last months Questions
- Update 2019.1
- Open Discussion and Q&A

More detailed agendas to be published in advance in 2019

Presentation PDF Link

Presentation PDF Link
Other Virtual Meetups
Share with your co-workers
Monthly Virtual Meetup

- **Virtual Meetup** is a monthly webinar and an ongoing forum engagement, supplemented by in-person meetings at AU Las Vegas and Regional AUs. Flavors of the main agenda:
  - **Connect with Experts** – best practices and live discussions with subject matter experts
  - **Open mic** – customers presenting their stories or workflows
  - **Updates from product teams** – a product team comes to share what’s new in the release and what’s coming next

https://customersuccess.autodesk.com/
Plant 3D with the Experts

Information page with links

Plant 3D with the Experts - Video Blog Series

by Product Support Team • on August 16, 2019

Do you want to know more about Plant 3D?
Do you want to know a how to get started?
Are you an Plant 3D user or administrator with questions?

If you answered yes to any of these questions then this webinar series may be just the thing you need.

The Autodesk Product Support Team has planned a long list of short videos to help
AutoCAD Plant 3D Community Virtual Meet-up

Share on social media with your colleagues

AutoCAD Plant 3D Community Virtual Meet-Up

Tuesday, October 8, 2019

Register now

Webinar

AMERICAS
11:00 AM
US Pacific
2:00 PM
US Eastern

EUROPE
10:00 AM
London
11:00 AM
Central Europe

ASIA/PACIFIC
12:00 PM (noon)
Singapore
2:00 PM
Sydney

Jason Drew
Joel Harris
Nabil Nougha
Martin Buss
Daniel Manning
Vinod Balasubramanian

Link
AutoCAD Plant 3D Community MeetUp Webinars

Autodesk is proud to present our monthly AutoCAD Plant 3D Community MeetUp webinar series. In this space we will hear news and information on AutoCAD Plant 3D design solutions, participate in live Q&As with Autodesk specialists, and have the opportunity to connect with diverse members throughout the worldwide AutoCAD Plant 3D community.

The webinars are scheduled for 30 minutes, though we will always extend beyond the initial half hour whenever a lively discussion happens to take a life of its own.

- Americas Session
- Europe Session
- Asia/Pacific Session

- View all upcoming Customer Success events
- View all past Customer Success events

New registration page, now online: https://www.autodesk.com/customer-success/plant-3d
“In the Pipes” has Moved

- As another step as Autodesk’s ongoing process to improve our customers experiences has moved the “In the Pipes” blog to a new home.

https://blogs.autodesk.com/in-the-pipes/
Transport Layer Security (TLS): Updates Required to Maintain Software Access

- **Issue:** Transport Layer Security (TLS) 1.0/1.1 is vulnerable to man-in-the-middle (MITM) attack that can compromise data exchanges. This applies to *single-user subscribers* using the software versions listed below; customers using software or versions not listed and customers using perpetual or multi-user (network) licenses will not be affected.

- **Environment:** This issue affects a selection of Autodesk software used on Windows, Mac, and Linux versions 2014, 2015, 2016 and/or 2017.

For most 2018, 2019, or 2020 software versions, your software and account are not affected.