Plant 3D User Community Virtual Meet Up
13th August 2019

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GoTo Webinar Platform Attendee Operations

- Use your internet or a phone to connect audio
- Or ask a question
**Introduction**

- **Name:** David Manning

- **Designated Support Specialist**
  - Plant 3D and P&ID
  - AutoCAD
  - ReCap
  - Recap Photo
  - Navisworks
  - Fusion 360
  - Vault
  - BIM 360 tools

  - 6 years Steam Plant Design

  - 12 Years Piping Design (Oil & Gas)

  - At Autodesk since 2015
Agenda

- Overview
- Plant 3D News
  - Follow up Questions from last month
  - Importing Equipment from Manufacturing Designs and Vendors
- Open Discussion and Q&A
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.

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.
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Plant 3D News
Update problem on P3D 2020.0.1 with AutoCAD 2020.1

- Don’t install the AutoCAD 2020.1 update on Plant 3D 2020.0.1. A Plant 3D update is expected soon to resolve the problem and you can then install the AutoCAD 2020.1 update.

Plant 3D Collaboration maintenance

- On Monday, Aug. 19th, from 12:00 AM to 03:00 AM Pacific Daylight Time (UTC-7).
- Please don’t work on your Plant Collaboration projects during this time.
Plant Beta Program

No installation needed, access by Remote Desktop Connection

- **PCF per DWG Iso Creation** – In an effort to make the fabrication process a little more seamless (yes, a pipe joke) the team has added the capability to have PCFs created along with their matching DWG sheet counterparts.

- **Support Fitting to Fitting piping for Lap Joint connections** – no more modeling hoops to jump through and temporary little bits of pipe to add and remove.

- **Improved handling of Pipe Slope Editing (rotating elbows)** – This will improve applying slope via Pipe Slope Editing (right click) on horizontal pipe in scenarios where rotating elbows at the end of the piping can be done to maintain the connection instead of breaking it.


- (If you are not a Beta member, [sign up here](#).)
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](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.

[Image of the Autodesk blog]

https://blogs.autodesk.com/in-the-pipes/
Navisworks Object Enabler - PLANTSAVEDETAIL

- We have noticed a few cases recently where this may help.
  - **Issue:** Our client set up a new machine and was having issues with objects, such as fittings and valves, not appearing in Navisworks. The client installed the object enabler and still, the problem persisted.
  - **Troubleshooting:** We verified to make sure Object Enabler was installed correctly (it was). This problem has come up in a previous support case and the issue was the “PLANTSAVEDETAIL” system variable.
  - **Solution:** We had the client change the value from 0 to 1 in PLANTSAVEDETAIL and after reloading the model in Navisworks all of the objects appeared as normal.


Importing Equipment from Manufacturing Designs and Vendors
Why Simplify Equipment Models?

- Equipment and Vendor models are often very large and have many features and details that are not required for the piping modelers.

- Removes unnecessary detail like internal components and small features.

- Models not simplified can cause performance issues in design applications like Plant 3D due to complexity.

- Reduce issues and can improves the quality and speed when creating Orthographics.

- Efficient use of Vendor models to create Catalog components.

- Can protects equipment designers intellectual property.
Adding Equipment to Plant 3D

- There are numerous ways to add equipment into Plant 3D. The following are the primary examples of these workflows.

1. Import ADSK File (a.k.a. Convert Inventor Equipment).
   - Exported from Autodesk Inventor.
   - Can have BIM intelligence.

2. Copy file to project (make a DWG a project drawing).
   - Exported from Autodesk Inventor or Fusion 360.

3. Create a block from an exported DWG.
   - Exported from Autodesk Inventor or Fusion 360.
How Do You Receive Equipment Models?

- The most valuable distinction when receiving equipment models from others is the level of relationship with the supplier.
  1. If you are downloading or receiving catalog or library models you likely won’t have the ability to request a more simplified model.
  2. If you are receiving them from a design team, you may be able to request the files be supplied in a format or formats that best suit your workflows.

- The main difference is that a model supplied from a design team is much easier to handle and the file creation is significantly easier if created from within the design application.

- When you don’t have this option, if the equipment design changes you may need to reapply model simplification all over again to be able to work effectively in other authoring tools.
Work with the Design Team

- When you have a relationship with the design team that own the models, it is best practice to have the design team supply the equipment models in an appropriate format for your needs.

- The major benefit of this become evident if the design has to change. If the design changes typically design applications will systematically update the files for exporting and resending, with very little extra effort. In this situation the updating of the files to supply is highly efficient and more reliable than re-processing by the Plant team.

- Autodesk Inventor can supply files for use in AutoCAD and Revit tools very easily. This has the added advantage of maintaining the BIM detail added by the design team.

- Most design applications will have similar functions but are unlikely to have the Revit family or .ADSK file formats.

- The process discussed in the following slides are the same that might be used by a design team to process exports for sharing.
What Options Do I Have To Do It Myself?
What Options Do I Have To Do It Myself?

**Autodesk Inventor**

- **Pro’s**
  - High levels of functionality and options.
  - BIM Data attribution and ADSK file format export for native Plant import.
  - IPT or IAM files can be imported directly into AutoCAD.
  - Can connect to BIM 360 Team via desktop connector.

- **Con’s**
  - Complicated to master and a step learning curve to get started.

**Fusion 360**

- **Pro’s**
  - Very easy to learn and quick to pickup.
  - Can work dynamically with Autodesk Inventor.
  - Can export model as Inventor Part file.
  - Simultaneous multi-person workflows.
  - Files stored in BIM 360 Team projects.

- **Con’s**
  - Does not export to ADSK format.
  - No native BIM data attribution, and no Plant 3D Connectors.
Using Fusion 360 to Simplify a Model

- Import / Upload Equipment Model, open model in Fusion 360.
- Open a new Simulation Study, select “Simplify” to activate the workspace.
- Use the provided tools to simplify the model.
- When simplified as desired, from the file menu use Export to export to the desired format (e.g. DWG)
- Add model to Catalogue, as project file etc. as required.
For More Information

These articles will provide more information and details for use with Fusion 360

- Making the most of Simplify in the Fusion 360 Simulation Workspace – Part 1:

- Fusion 360 Help; Model simplification (defeaturing):

- Autodesk CFD: Fusion 360 CAD Simplification: https://youtu.be/P1g6dxSnfYg

- Use Fusion 360 to Simplify Models for Autodesk CFD: https://youtu.be/16xlcYnqOzI
Using Autodesk Inventor to Simplify a Model

- Load supplied part or assembly file to a new or an existing project.
- Open the Imported equipment assembly (create an assembly and add the part if required).
- Create a new “representation”, and activate the view.
- Initiate the Shrinkwrap command.
- Select features and settings to remove the desired features and details. Set the file name and export details of the new part that will be created.
- The new simplified part file is opened in inventor. This part can also be exported to DWG directly from within Inventor.
Autodesk Inventor to Export to ADSK file

- In Inventor, select the Environments tab, and pick BIM Content.

- From the BIM Content Tab, select “Pipe Connectors” to add Connections for Plant 3D.

- When all BIM data has been added, select “Export Building Components”, and save the ADSK file in a desired location.

- In the Plant 3D Project select “Convert Inventor Equipment” to import the ADSK file. The imported model will have pipe connections as configured, that can also be edited.
For More Information

These articles will provide more information and details for use with Inventor.


- Quick Tip – Shrinkwrap: https://youtu.be/QJFAada1GgA

- Leveraging Inventor Data with AutoCAD Plant 3D | Autodesk Virtual Academy: https://youtu.be/85mn93rpVgl

- Inventor Shrinkwrap to Plant 3D: https://youtu.be/kYr_mSJxuF8


- Shrinkwrap and derive? What's the difference? | Autodesk Inventor: https://youtu.be/WQCO2YLHxgk


- Inventor to Revit ADSK Export - A How To Guide: https://youtu.be/zXI8oJ1wq28
Export DWG from Inventor
Export DWG from Fusion 360

[Diagram showing steps to export DWG from Fusion 360]

1. Click New Design
2. Click Export...
3. Select the desired file name.
4. Select DWG Files (*.dwg)
5. Click Export
Open Discussion and Q&A

Ask your questions in the Q&A panel
Thank you for getting involved.

Don’t forget to send your feedback survey.
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
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.

AutoCAD Plant 3D Updates and Versions

In the Pipes
Tips and Tricks from the Autodesk Product Support Team

May 04, 2019

All Updates Installed?

It is always the best to have all updates installed. So, you will have the best guarantee that all available fixes are installed or that you will have access to all new features for that version. But what for updates are available for which version of AutoCAD Plant 3D? Note that you have to install plan AutoCAD Updates separately. They are not included anymore in AutoCAD Plant 3D updates since some years.

So, here is the list:

AutoCAD Plant 3D 2016:
- AutoCAD Plant 3D Extension 1 SP2I
- AutoCAD SP1

AutoCAD Plant 3D 2017:
- AutoCAD Plant 3D Update 2017.1
- AutoCAD Update 2017.1.2

AutoCAD Plant 3D 2018:
- AutoCAD Plant 3D Update 2018.1.2
- AutoCAD Update 2018.1.2

AutoCAD Plant 3D 2019:
- AutoCAD Plant 3D Update 2019.1.2
- AutoCAD Update 2019.1.2

AutoCAD Plant 3D 2020:
- AutoCAD Plant 3D Update 2020.0.1

Note that if you have a desktop subscription, you can use the Autodesk Desktop App to be up to date with your updates.

What version is it anyway?

I often find that it can be confusing for people where to find what version of Plant 3D you are using and sometimes how to read it. Following on from Remor's previous post "All Updates installed", I thought this might add some colour if not clarity.

It is important to distinguish between the AutoCAD built in and the Plant 3D build installed, which as Remor points out are not packaged together anymore. So how do I know what version of Plant 3D I am using, or the AutoCAD version?

In the top right corner of the Plant 3D window find the help question mark and open the menu below it, then select the "About" option.

This opens the Plant 3D information window. The image below highlights the different areas for Plant 3D's version and the lower line for the AutoCAD version.

[Image of Plant 3D information window]

Plato 3D Version Data

AutoCAD Version Data (AutoCAD Under Plant 3D)

Yes, already
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.
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November 6th 2018

APAC Session
Agenda:
- Overview
- Plant 3D News
- Follow up on last month’s questions
- Update 2019.1
- Open Discussion and Q&A

Presentation

EMEA Session
Agenda:
- Overview
- Plant 3D News
- Follow up on last month’s questions
- Update 2019.1
- Open Discussion and Q&A

AMER Session
Agenda:
- Overview
- Plant 3D News
- Follow up on last month’s questions
- Update 2019.1
- Open Discussion

Presentation

More detailed agendas to be published in advance in 2019