Plant 3D User Community Virtual Meet Up
October 13th, 2020

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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 on this YouTube Playlist
Providing technical support to Enterprise Support customers and Autodesk communities in the following products and associated workflows:

- Plant 3D and P&ID
- AutoCAD
- Inventor
- Navisworks
- Fusion 360
- 3DS Max

- IT Support – 10 years
- P&ID Design (Oil & Gas) – 3 years
- Autodesk – 8 years
Joel Harris
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Providing technical support to enterprise customers and the Autodesk communities in the following products and associated workflows:

- Plant 3D and P&ID
- AutoCAD
- ReCap
- Recap Photo
- Navisworks
- Vault
- BIM 360 tools

- 23 years process piping designer
- 6 years AutoCAD developer/partner
- 5 years Autodesk Specialist
Agenda

- Overview
- Plant 3D News: General Updates and News
- This Month's theme: Navisworks with Plant 3D + BIM 360
- Follow up Questions from last month
- Open Discussion and Q&A
Overview

Objective:

- Overview of Navisworks for Plant
- Navisworks with Plant + BIM 360
- Open Discussion / Q&A

Scope:

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

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Plant 3D News
Plant News

AU 2020

Attend at no cost
• There is no cost to attend AU 2020, but registration is required to participate
• Registration is now open

One global digital event
• AU 2020 begins November 17th with our Americas broadcast and continues around the globe
• If you’re in Asia Pacific, Middle East, Africa, or European time zones, join us beginning November 18th

Register at: au.autodesk.com
Plant Classes for AU 2020

• *Panel Discussion AutoCAD Plant 3D*
• *A Workflow Toward a Digital Plant Asset Management System*
• *Nothing but Net: Meet the Next-Generation AutoCAD Plant 3D Collaboration with BIM 360 Docs*
• *How to Get an A+ with Your AutoCAD Plant 3D Reports*
• *Configuring AutoCAD Plant 3D Isometrics*
• *AutoCAD Plant 3D: Overcoming Challenges to Bringing in 3D Equipment from Other Sources*

[https://www.autodesk.com/autodeskuniversity/conference/schedule](https://www.autodesk.com/autodeskuniversity/conference/schedule)
Plant News
Plant 2018.1.1 Update

- Customers need to have Plant 3D 2018.1.1 Update or newer versions to utilize Collaboration Services with Plant 3D 2018
- Any users on Plant 3D 2018 initial release to market (no updates) will have challenges connecting after October 11th of 2020

Unable to use Collaboration Services for Plant 3D 2018
Navisworks Overview for Plant 3D
Navisworks with Plant 3D
Why Use Navisworks for a Federated Model?

- Merge models created from different design tools and disciplines
  Autodesk Navisworks is compatible with more than 50 file formats

- Includes 2D and 3D geometry as well as metadata
  The federated model can be used for coordination, bidding, or reviewing workflows

- Federated model can be shared as read-only
  Different stakeholders can review and coordinate without making changes to the model

- Navisworks allows to set up password and expiry dates
  Extra security for your models and expiration date in case is not the final model

- File compaction
  Navisworks models are typically 80% of the original model file size
Different types of Navisworks files

3 Navisworks files types

- **NWD**: independent, static file, can save changes, e.g. overrides in colour etc.

- **NWC**: same as NWD, but cannot save changes, locked file

- **NWF**: dependent, dynamic file, displaying referenced files. Save as NWD or NWC
Object enablers

Install object enablers for proper display of objects coming from AutoCAD verticals

- Download / Install: **Plant 3D 2021 Object Enabler**
- Troubleshooting: **Objects missing or showing as wireframe in Navisworks after installing the Plant OE**
Single-user vs Multi-user access of Navisworks files

- Navisworks as desktop standalone does not offer multi-user access!
  - Multiple users can open one NWF at the same time but just one user can save changes
  - Each user should have their own copy of an NWF for saving markups, viewpoints, etc.
  - Collaboration with other users involves exporting viewpoints (with comments, etc.) and sharing the XML file to the rest of the team

- Consider using BIM 360 Docs with Desktop Connector for global file access / exchange

- Take advantage of the multi-user access of Navisworks NWDs in combination with the free [BIM 360 Issues app for Navisworks](#)

- Create BIM 360 issues for relevant clashes or other design errors either from the BIM 360 web app or directly in Navisworks with use of the issue app
Automation of NWD creation on a BIM 360 project

- Users who are new to BIM 360 collaboration workflows are often missing the Navisworks federated model to review the current project status

- You can easily setup automatic creation of the federated model with help of the Desktop Connector and batch utility of Navisworks

- See the following graph that shows how it works
Automate creation of Navisworks files - Option 1

- **Batch Utility**
  - To Generate a List of All Design Files Used in the Current Model
  - To Append Multiple Design Files into a Single Autodesk Navisworks File
  - To Convert Multiple Design Files into Individual NWD Files
  - To Schedule Appending Multiple Design Files into a Single Autodesk Navisworks File
  - To Schedule Conversion of Multiple Design Files into Individual NWD Files
  - To Create a Log File
Automate creation of Navisworks files - Option 2

- **Command line tool**

- **Use DOS command:**
  - `dir /S /B *.dwg > d.txt`

- **Gathers all paths from DWG files from a folder and sub-folders in the text file**

- **For direct use as the /i option in the command call**

(see table on the right)

<table>
<thead>
<tr>
<th>Command Line Switch</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>/i</td>
<td>Must be specified. The next argument is the input file. You must provide the file name and file path within quotation marks.</td>
</tr>
<tr>
<td>/of</td>
<td>Outputs to a single file (NWD or NWF). The file name and file path should be provided within quotation marks. For example, &quot;C:\temp\a.nwd&quot; or &quot;C:\temp\a.nwff&quot;.</td>
</tr>
<tr>
<td>/od</td>
<td>Outputs multiple NWD files into a specific folder. The folder path should be provided within quotation marks. For example, &quot;C:\temp&quot;.</td>
</tr>
<tr>
<td>/osd</td>
<td>Outputs multiple NWD files into the same directory as the mode being converted (the input files).</td>
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<tr>
<td>/view</td>
<td>Automatically open the file as soon as it’s been created.</td>
</tr>
<tr>
<td>/over</td>
<td>Overwrites output files. This is the default behavior.</td>
</tr>
<tr>
<td>/inc</td>
<td>Increments output file names.</td>
</tr>
<tr>
<td>/version</td>
<td>Specifies the output file version to use. For example, 2015.</td>
</tr>
<tr>
<td>/log</td>
<td>Outputs events into a log file. You must provide the file name and file path within quotation marks. For example, &quot;C:\temp\log.log&quot;.</td>
</tr>
<tr>
<td>/appendlog</td>
<td>Records new and old events in the same log file. The new information is appended to the bottom of the log file.</td>
</tr>
</tbody>
</table>

The syntax for using command line switches is:

```
```

For example, the following entry processes the list of design files in the filetools.txt file, appends them into a single conference.nwd file, and creates a log file events.log in French language.

```
"C:\Program Files\Autodesk\Navisworks Manage 2021\FileToolsTaskRunner.exe" /i "C:\Conference Center\filetools.txt" /of "C:\Conference Center\conference.nwd" /log "C:\Conference Center\events.log" /lang fr-fr
```
Navisworks with Plant + BIM 360
Navisworks + BIM 360 + Plant 3D

Overview

- Create and assign issues directly from Navisworks
- Automatically detect clashes in your models
- Maintain a common data environment for the entire coordination process
- Access BIM 360 Model Coordination managed folders directly from Navisworks
Plant 3D Design Workflow

Example of editing a 3D model and submitting it to be checked

- Piping Designer modifies Plant 3D model
- Checker Identifies Issues and logs them in BIM 360
- Model is approved and copied to Project Coordination Space
Navisworks / BIM 360 Issues Demo
Additional Resources

Integrate Navisworks and BIM 360 Model Coordination

Webinar: Integrate Navisworks and BIM 360 Model Coordination
Open Discussion and Q&A

Raise your hand to ask your questions or add them to the Q&A panel

Note: slides / handout available for download through GoToWebinar client
Additional Resources

- BIM 360 Docs issues generated with Navisworks clash detection including a point cloud
- Navisworks / BIM 360 Docs workflow to share a federated model
- Mapping Autodesk Desktop Connector (BIM 360 Next Gen) to a user independent path
- DWG (Plant 3D) properties to Assemble via Excel export from Navisworks
DWG (Plant 3D) properties to Assemble via Excel export from Navisworks
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
- Autodesk Blogs: Plant 3D - In The Pipes
The Customer Success Learning Hub

- Access to articles, product updates, tips and tricks, and more
- View previous webcasts
- Browse upcoming webcasts and live events
- Share expertise with industry peers and product teams

customersuccess.autodesk.com

The Hub:
A Place to Learn, Connect, and Share Expertise.
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 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...
New registration page, now online: https://www.autodesk.com/customer-success/plant-3d

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

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View all past Customer Success events
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

[Link: Community Meetups]
“In the Pipes” Blog 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/