Plant 3D User Community Virtual Meet Up
9th July 2019

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Joel Harris
Designated Support Specialist
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Nabil Nougha
Designated Support Specialist
GoTo Webinar Platform Attendee Operations

- Use your internet or a phone to connect audio

- Or ask a question
Introduction

- Jason Drew

- Designated Support Specialist
  - Plant 3D and P&ID
  - AutoCAD
  - Inventor
  - 3DS Max
  - Navisworks
  - Fusion 360
  - Vault

- 10 years IT Support

- 3 years P&ID Design (Oil & Gas)

- 11 years Autodesk Specialist
Introduction

- Joel Harris

- Designated Support Specialist
  - 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
Introduction

- Nabil Nougha

- Designated Support Specialist for French and Middle Eastern Major Accounts
  - @ Autodesk since 2011
  - Supporting: Revit, AutoCAD, Navisworks, Plant 3D, P&ID, BIM 360 Family
  - Based in Dubai UAE
  - Piping Arrangement Engineer
  - Superintendent (10 Years)
  - Nabil.nougha@Autodesk.com
Designated Support Specialist (DSS) | Martin Buss

- 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.
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
  - Isometric Configuration Overview

- 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 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.
Safe Harbor Statement

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Plant 3D News
Follow up on Last months Questions

Lap Joint / Stub-End Connection Configuration

- None
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

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

Isometric Configuration Overview
Isometric Configuration

Isometric Styles define the appearance of the generated isometrics.

- Layers, colors, linetypes
- Dims and leaders
- Annotation types and fonts
- Border size & title block info
- Tables (BOM, welds, etc.)
- North Arrow direction
- Company logo
- File naming convention
- Field Fit Weld length
- Slope/Offset Piping style

*If any of the above need to be modified on a permanent basis, you should create a new isometric style.*
Isometric Configuration

Isometric Styles are typically subfolders of the Isometric project folder: (...[projectname]>Isometric>[Style name])
Adding/Removing an isometric style

For standard SQL and SQLite projects:

1. Typically create modify and test new styles on a test (non-production) project.
2. When satisfied with new style, copy folder into a template or working project.
3. Modify style-specific paths using Project Setup or manually (Not preferred: need to do it right and know where paths hide in files like ClientConfig.isf and IsoConfig.xml).
4. Remove the style folder and the style is no longer available in the project. **Note: if your isometric output folders are located under the style folder they will also be deleted from the project.**
Adding/Removing an isometric style

For Vault projects:
1. To add an isometric style, check out the project settings with Project Setup.
2. Add your style just as you would with a standard SQL/SQLite project, noting that any manual file editing must be done on the local Vault workspace copy of the project.
3. Apply the changes and close Project Setup to synchronize your changes to Vault.
4. Remove an isometric style by deleting the isometric style folder from within the Vault client and then removing the folder from the local Vault workspace. *Note: if your isometric output folders are located under the style folder they will also be deleted from the project.*

For BIM 360 Team projects:
1. To add an isometric style, check out the project settings with Project Setup.
2. Add your style just as you would with a standard SQL/SQLite project, noting that any manual file editing must be done on the local Collaboration workspace copy of the project.
3. Apply the changes and close Project Setup to synchronize your changes to BIM 360 Team.
4. Remove an isometric style by
   a) Deleting the isometric style folder from within the BIM 360 Team project, and then
   b) Using “Delete Forever” on the isometric style folder in the BIM 360 Team project Trash, and finally
   c) Removing the folder from the local Collaboration workspace. *Note: if your isometric output folders are located under the style folder they will also be deleted from the project.*
Common Isometric Problems

- Missing annotations
- Missing or duplicate dimensions
- Incorrect symbols
- Incorrect or missing information in bill of materials
- Incorrect dimensions
- Messy annotations (overlapping leaders, missing text, etc.)

Troubleshooting Tips:

- Test isometric output on an out-of-the-box style (ex: Final_ANSI-B) to verify that it is your style that is the culprit.
- Start new styles from an out-of-the-box style.
- **Modify only one or two items at a time.**
- Keep a backup copy of your style folder *prior* to making modifications.
- Modify using Project Setup first, before modifying files manually.
Isometric Configuration
Iso style related files:

- **IsoConfig.xml** contains the configuration settings.
- **iso.dwt** is the title block template.
- **ClientConfig.isf** contains miscellaneous settings that are not saved in IsoConfig.xml.
- **Iso.atr** maps properties to title block attributes.

The following files are shared by all styles in the project: Isometric Project Files

- **IsoSkeyAcadBlockMap.xml** maps SKEY to block name.
- **IsoSymbolStyles.dwg** contains Iso symbol block definitions.
- **Plant3dIsoSymbols.dwg** contains Iso messages and break point markers. Used by both the 3D model and Iso drawing.
- **PropertyTranslationMapping.xml** maps property values to display values. For example, Weldolet can be replaced by WOL. Applies just for annotations, not for the BOM.
- **BoltSizeMappings.xml** maps imperial to metric bolt sizes. (+ValveOperatorDirectionAliasMapping)
A great portion of the iso configuration is saved in the isoconfig.xml

Many settings are not exposed to the configuration user interface, but can be edited in the isoconfig.xml

Common practise: Most of the features are filter based, so changing filters enable/disable certain objects for certain features, e.g. don't display elements with certain SKEY in the BOM

Filters can be found at the end of the xml file, good practise is to create a new filter rather than modifying existing filters (they can be used in several places)
User defined Attributes

- Set up User defined Attributes
  - in the catalog / specs (optional, if you plan to input the data in the properties, you don't need it)
  - in the classes configuration

- Edit iso.atr : add line

- Create new ComponentScheme (isoconfig.xml)
IsoConfig.xml - Structure

- **Output** Output drawing configuration (also: BOM capitalized or not).
- **Files** Support and log file name configuration.
- **AdvancedDefaults** Known from the iso production dialog.
- **FileNameFormat** File name format.
- **DrawingNameFormat** Output drawing file name format (also used for title block).
- **View** The isometric view scheme: drawing and table area, north arrow.
- **Geometry** e.g. MakeupLength.
- **Units** Units format configuration: metric/imperial, fraction.
- **Skew** Skew configuration.
- **Split** Split configuration.
- **Data** Table data, collection based on filters.
- **Table** Tables layout configuration: BOM, weldlist...
- **Logging** Log message layout pattern configuration.
  https://logging.apache.org/log4j/1.2/apidocs/org/apache/log4j/PatternLayout.html
- **TitleBlock** Title block configuration.
- **LayoutOptimization** Parameters for Optimization.
- **Themes** Configuration for labels and dimensions, symbols, isolation, bends...
  Default, Small Bore Piping, Vent/Drain Piping, Offline Instrument Connection, Existing Piping, Continuation/Connection Piping, FittingToFitting
- **Filters** Named filters used to identify components, exclusions, and splits. Themes apply based on filters, tables present data based on filters.
Isometric Themes – Understand how they work!

Multiple themes are possible for each isometric style:

<table>
<thead>
<tr>
<th>Theme Name</th>
<th>Dimensions?</th>
<th>Annotations?</th>
<th>On BOM?</th>
<th>Symbols</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default*</td>
<td>X</td>
<td>X</td>
<td>As cfg’d</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitting to Fitting</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>No pipe</td>
</tr>
<tr>
<td>Small Bore Piping</td>
<td>X</td>
<td>X</td>
<td></td>
<td>2/3 size symbols</td>
<td>&lt;2” ND</td>
</tr>
<tr>
<td>Vent/Drain Piping</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>&lt;2” ND, &lt;7 components</td>
</tr>
<tr>
<td>Offline Instrument Connection</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>&lt;2” ND, &lt;7 components</td>
</tr>
<tr>
<td>Existing Piping</td>
<td></td>
<td></td>
<td></td>
<td>Dashed symbols</td>
<td>Existing = 'true'</td>
</tr>
<tr>
<td>Continuation/Connection Piping</td>
<td></td>
<td></td>
<td></td>
<td>Dashed symbols</td>
<td>Type LIKE 'END-**' OR Type = 'EndConnection'</td>
</tr>
</tbody>
</table>

*Default style gets used if none of the other themes’ conditions apply

Did you know you can create your own themes?
PropertyTranslationMapping.xml

Translate properties when creating isos

- E.g.: `<Property Key="PLACEHOLDER" Value="Platzhalter" />`
- This will replace all occurrences of "PLACEHOLDER" with "Platzhalter".
- You can add as many of these replacement tags and keep xmls for several languages.
- Limited to the labels in the drawing area.
- Also good for workarounds where you don't want to change the configuration.
Best Practices and Other Resources

1. Make one change at a time
2. Test with a good sample model
3. Make a backup of the isometric style folder
4. Verify the output isometric
5. Modify in an offline project

Autodesk University Classes:
https://www.autodesk.com/autodesk-university/au-online?query=isometric+configuration

Configuring AutoCAD Plant 3D Isometrics:
Open Discussion and Q&A

Ask your questions in the Q&A panel

- Or ask a question
June 03, 2019

Vote for AU class proposals - Vote for your Plant Content

This year there are 37 classes that list Plant 3D and 9 that list Plant P&ID as related products. To help see classes important to you at AU Vote now. Don’t forget, if you can’t make it to AU Las Vegas 2019, most classes are recorded and available to you sometime after the conference. So you should vote as well, but we’d love to see you there.

http://www.autodesk.com/autodesk-university/conference/las-vegas/call-for-proposals/voting

Vote for AU class proposals

Vote for the class that matters to you. We need your votes to make sure we have enough interest in your class to make your conference experience.

To view this year’s proposals and vote for them you need to visit at AU Las Vegas.

Plant 3D / P&ID IDEA STATION

AutoCAD Plant 3D / P&ID
Installation - Autodesk Community

CATEGORIES

Autodesk University - OH 2019 - Current Affairs

Design: P&I Plant 3D - Service Packs and Hotfixes - Spotlight: S3D Tricks: Tips & Tricks

RECENT POSTS

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What version is it anyway?
AutoCAD Plant 3D 2020 is live!

Network disconnection - how to prevent yourself for data corruption for Plant projects
Collaboration for Plant 3D ASIME UPDATE
AutoCAD Plant 3D + P&I Quick Tip for Accepting

IMPORTANT: Plant Collaboration Services Down-time on Pacific

Published by David Manning on June 03, 2019 | Followed
AutoCAD Plant 3D: Copy Isometric folder configuration to a different project

Products and versions covered

By: AUTODESK. Support
Sep 04 2017

Issue:
Can the isometric configuration be shared between projects by copy the entire Isometric folder to a different project?

Solution:
Yes, the entire Isometric folder can be shared between projects.

Note:
Always backup the original Isometric folder.

https://knowledge.autodesk.com/support/autocad-plant-3d
Thank you...

for getting involved

Don’t forget to send your feedback survey