HxGN
HEXAGON'S GLOBAL NETWORK

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Intergraph™ Smart 3D 1502 – Smart 3D Drawing Enhancements

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Introduction

Smart 3D 2014 R1 introduces several new enhancements which enable additional workflows for drawing creation. These enhancements include

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Move Drawings and Folders

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Snapshot Enhancements

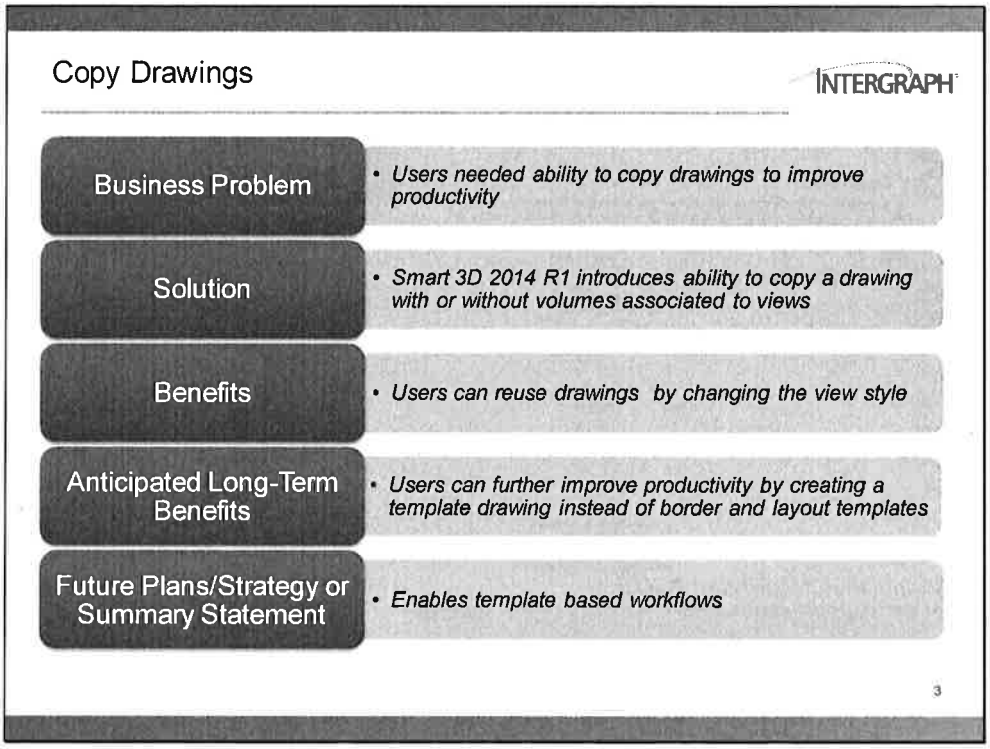
- Snapshot Visible Objects
- Snapshot Preview as Image

Labeling Enhancements

- Label Rule UI
- Selectively Label by Value
- Auto-scale Flow Arrows

Together, these enable users to become more productive in the drawing creation process and administrators to become more productive in the drawing configuration process and also reduce the amount of touch-up involved.

Copy Drawings

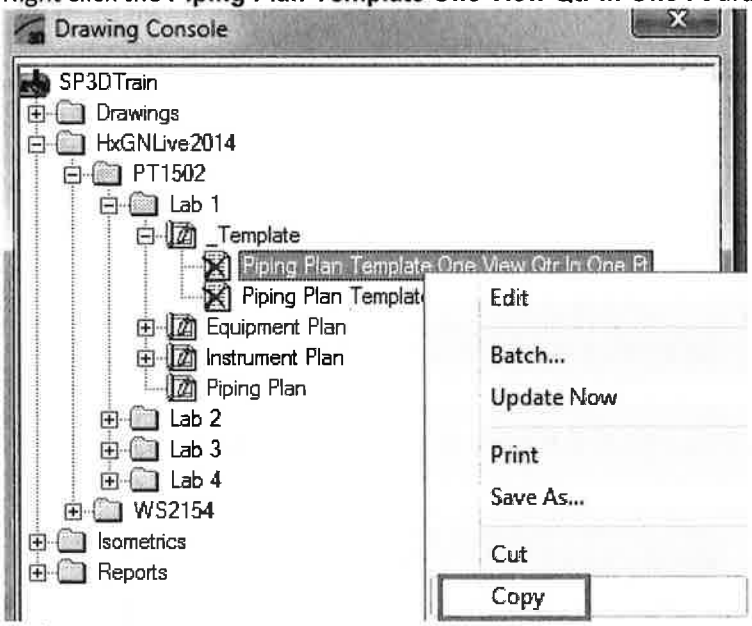


Use Template Drawing

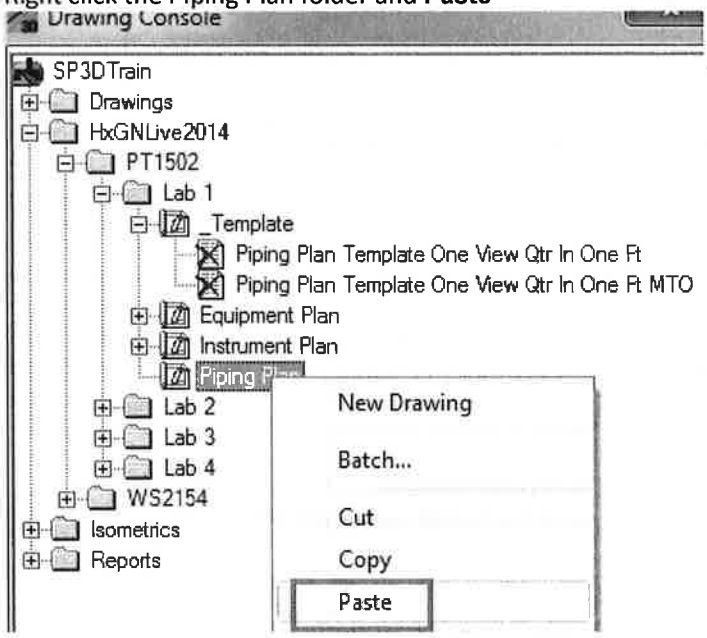
The ability to copy and paste drawings enables a template drawing based workflow. Instead of creating border and layout templates and requiring users to create a new drawing using the new drawing command and placing views and setting values, administrators can now pre-create "template" drawings and users can simply copy and paste them. This is a significant productivity enhancement and can also help reduce mistakes on the part of designers.

1. Start Smart3D using the PT1502.ses file on your desktop
2. Open Drawing Console and expand hierarchy **HxGNLive2014\PT1502\Lab 1_Template**

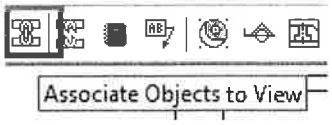
3. Right click the **Piping Plan Template One View Qtr In One Ft** drawing and **Copy**



4. Right click the Piping Plan folder and **Paste**

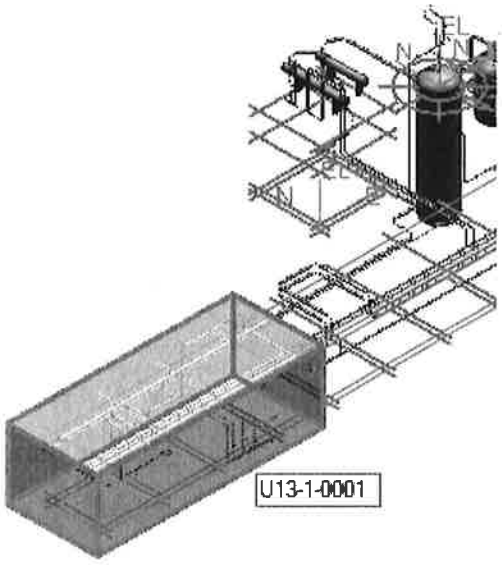


5. Select the pasted drawing and rename it to **U13-1**
6. Edit the **U13-1** drawing

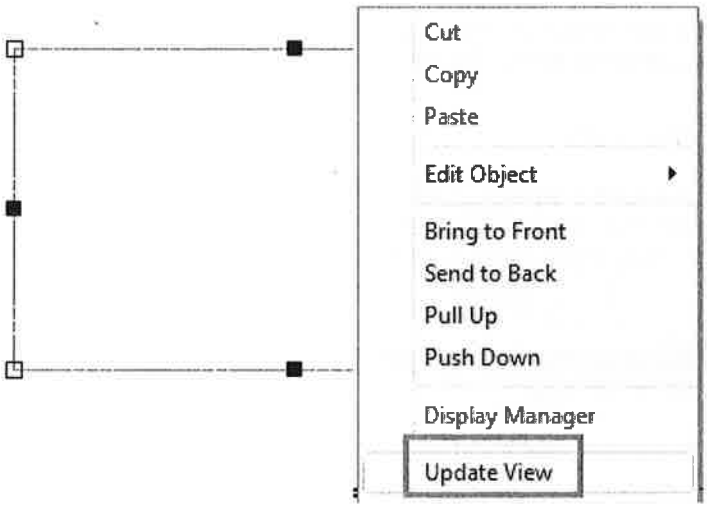


7. Locate the view and select **Associate Objects to View**

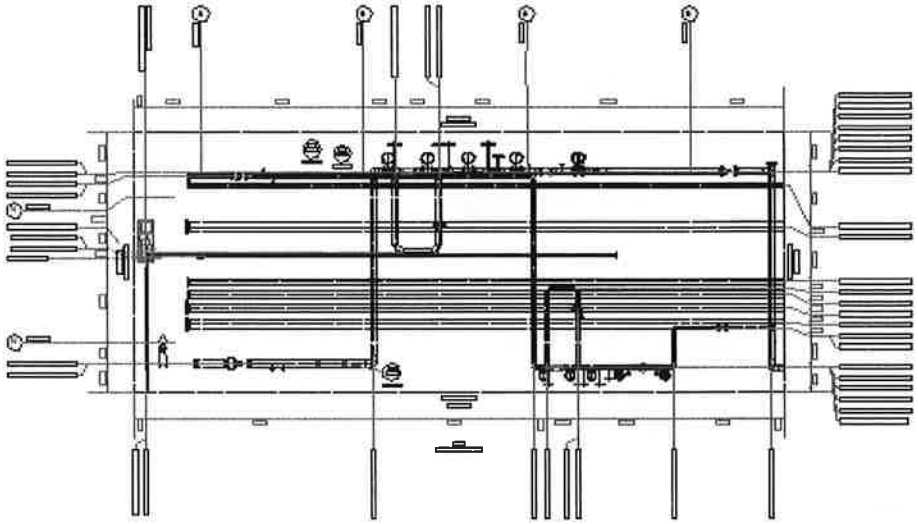
8. Switch to the 3D window and select the **U13-1-0001** volume



9. Right click the view and **Update View**



10. The updated drawing should like like below



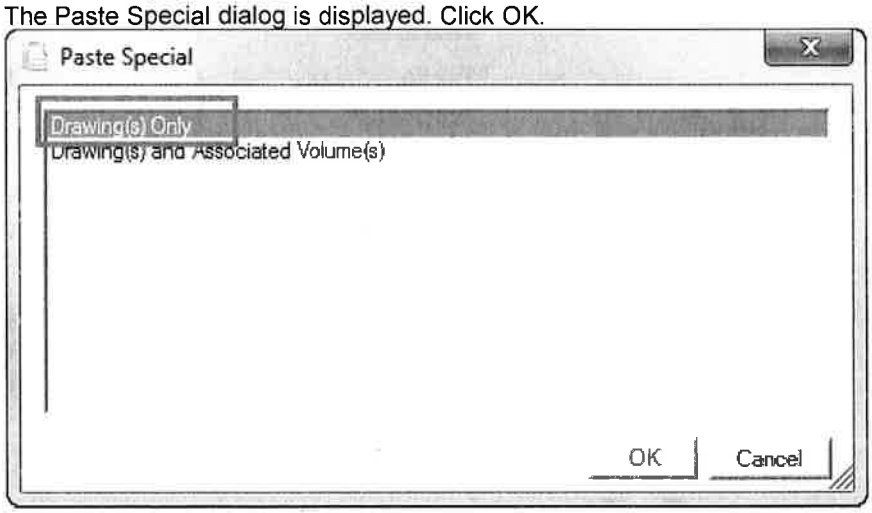
11. Review the drawing and close SmartSketch Drawing Editor.

Copy and Paste Drawing with Associated Volumes

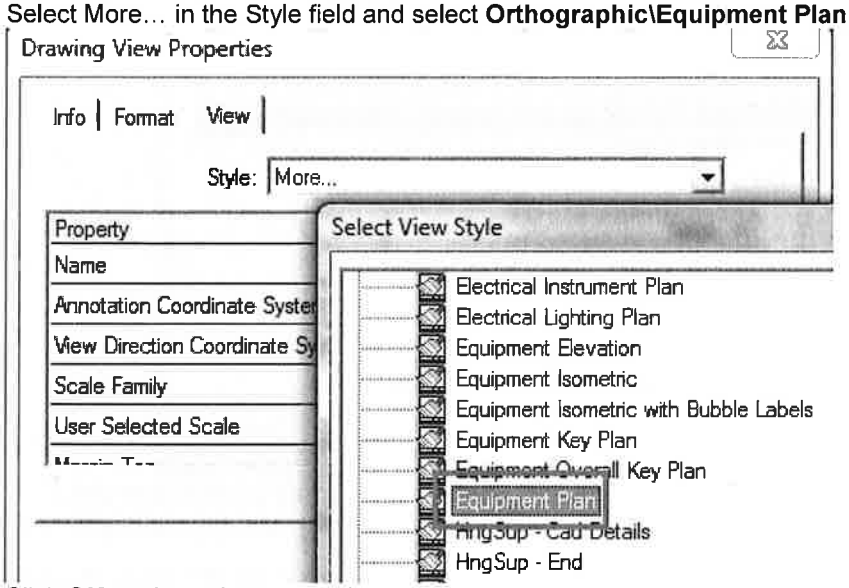
With the new copy and paste commands, it is also possible to copy and paste a completed drawing which has associations. When a view has volumes associated with it, the user is offered the option to either copy the volumes or simply keep association with existing volumes. The copy volume option should be used when the desire is to duplicate a drawing in order to document a different portion of the model, or to support a workflow where views do not share volume association in order to retain flexibility to modify them later. The keep association option should be used when the desire is to create additional drawings with a different style to document the same part of the model.

Copy and Paste Drawings Only

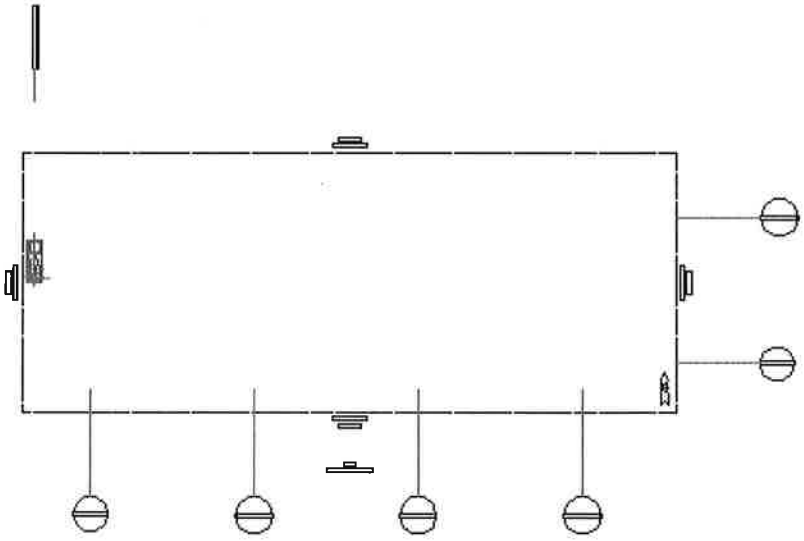
1. Select the Piping Plan\U13-1 drawing in drawing console and Copy it.
2. Select the Equipment Plan component and Paste.
3. The Paste Special dialog is displayed. Click OK.



4. Right click **Equipment Plan\U13-1** and edit it.
5. Right click the view and select **Properties**
6. Select More... in the Style field and select **Orthographic\Equipment Plan**. Click OK.



7. Click **OK** to close view properties
8. Right click on the view and update the view. The result should like below.

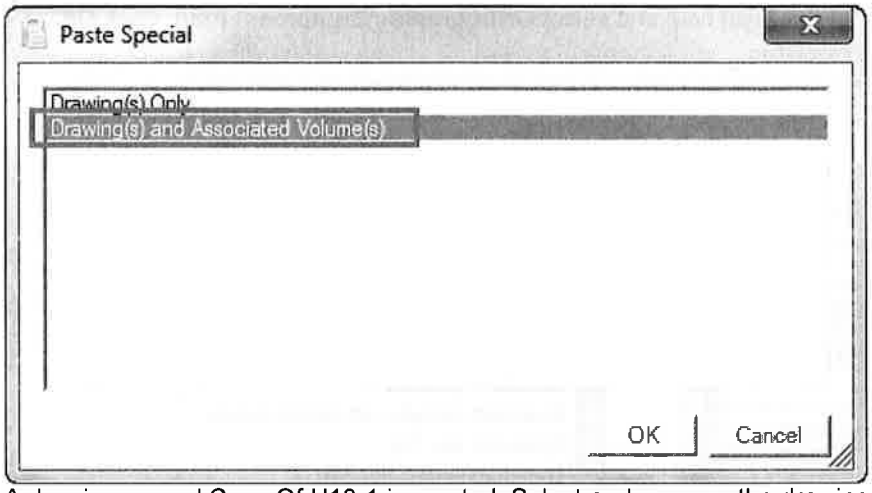


9. Close SmartSketch Drawing Editor

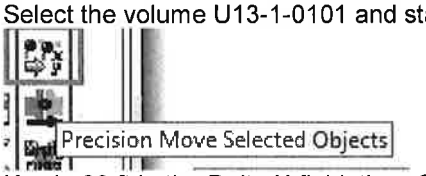
Copy and Paste Drawing and Associated Volumes

1. Select the **Piping Plan\U13-1** drawing in drawing console and **Copy** it.
2. Select the **Piping Plan** component and **Paste**.

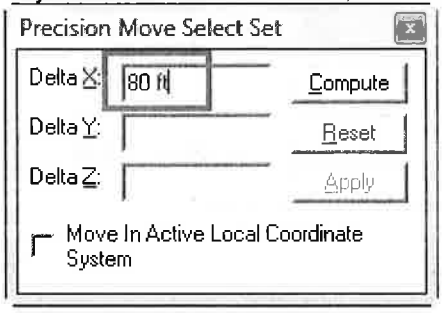
3. The Paste Special dialog is displayed. Select **Drawing(s) and Associated Volume(s)** and click OK.



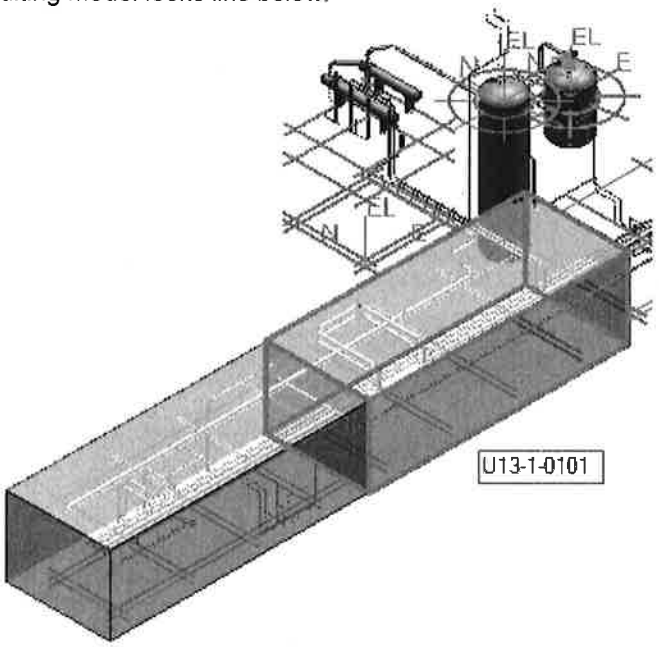
4. A drawing named Copy Of U13-1 is created. Select and **rename** the drawing to **U13-2**
5. Switch to the Space tab of the workspace explorer. Notice that a new volume named U13-1-0101 is created. You may rename this volume if desired.
6. Select the new volume and move it 80 ft to the east. You may use the **Precision Move Selected Objects** command from the Smart 3D Automation Toolkit (ATK) to do this. To do so
   a. Press Shift-Shift-Shift to invoke the ATK toolbar
   b. Select the volume U13-1-0101 and start the Precision Move command



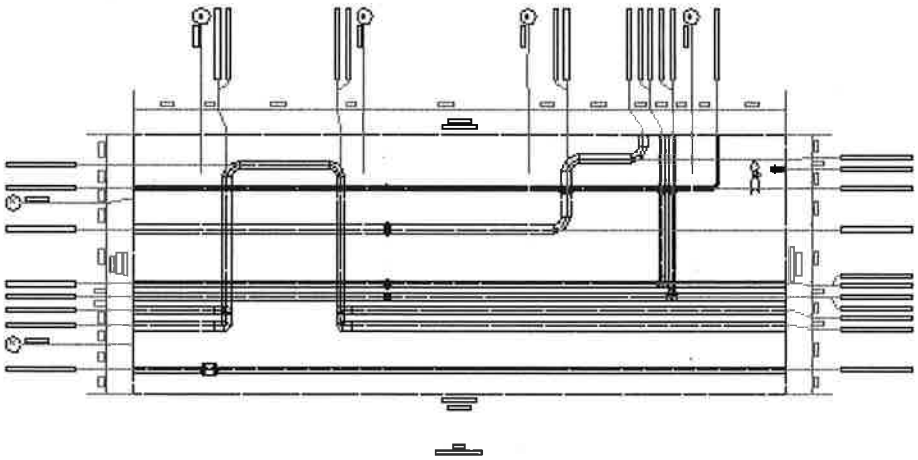
   c. Key in 80 ft in the Delta X field, then Compute and Apply



7. The resulting model looks like below.

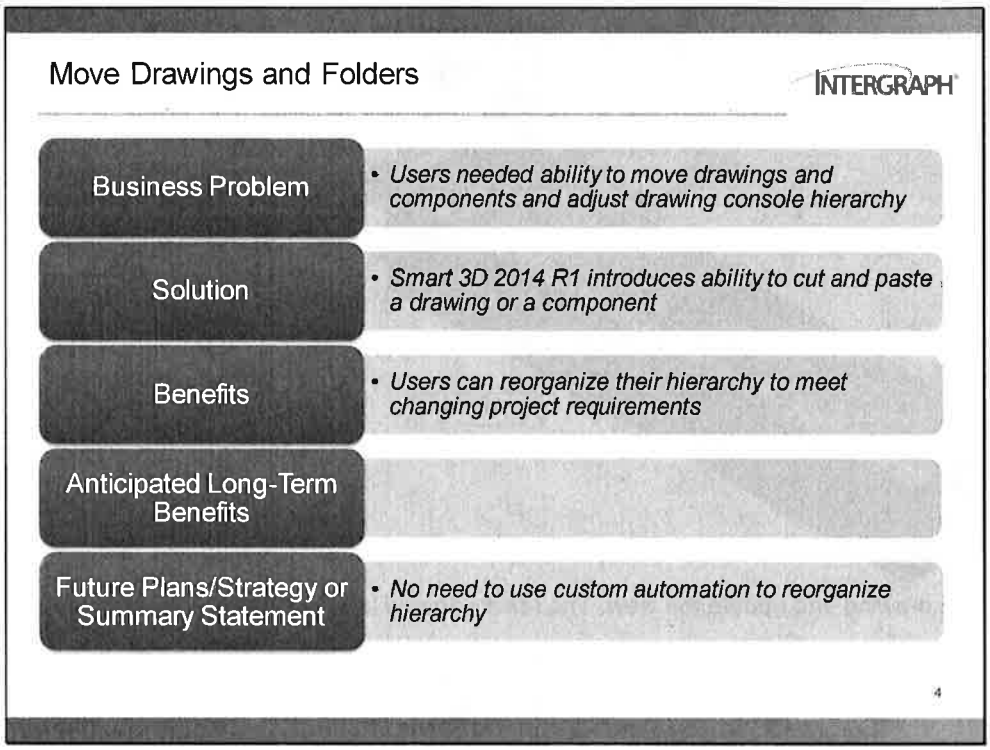


8. **Edit** the **U13-2** drawing and update the view. The results should look like below.



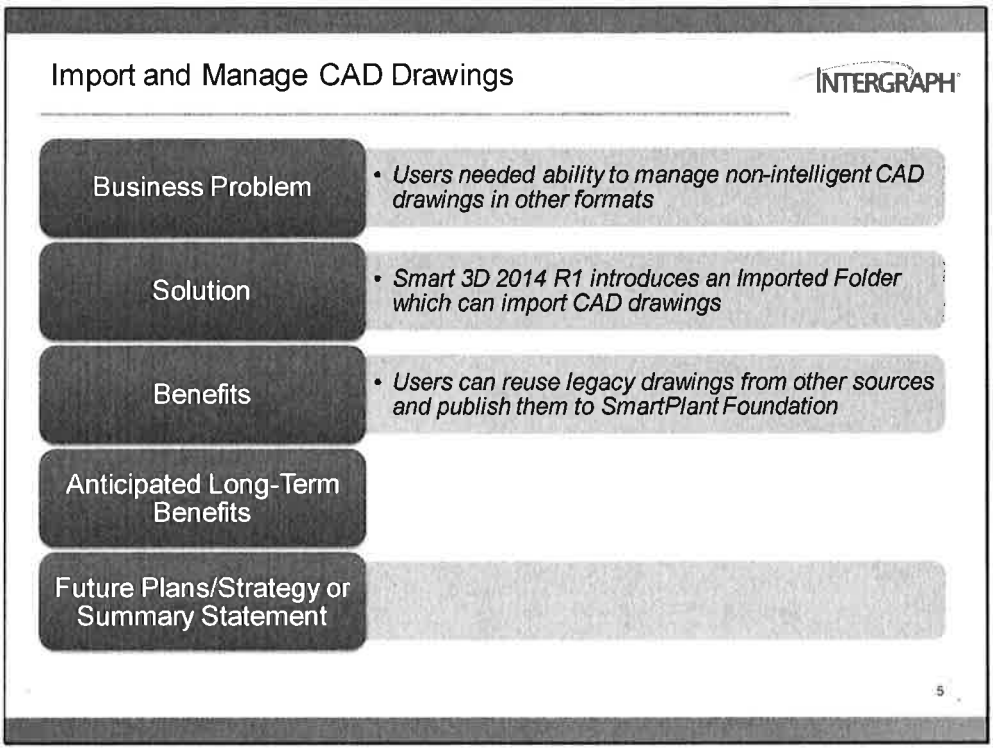
9. Close SmartSketch Drawing Editor.

Move Drawings and Folders



Hierarchy creation is also made easier by enhancing the New menu at a folder. Users have had the ability to copy and paste views within a drawing and move views between drawings for some time. The ability to copy and paste drawings and move drawings and components further complements this and allows easy reorganization of the hierarchy at the drawing and folder levels.

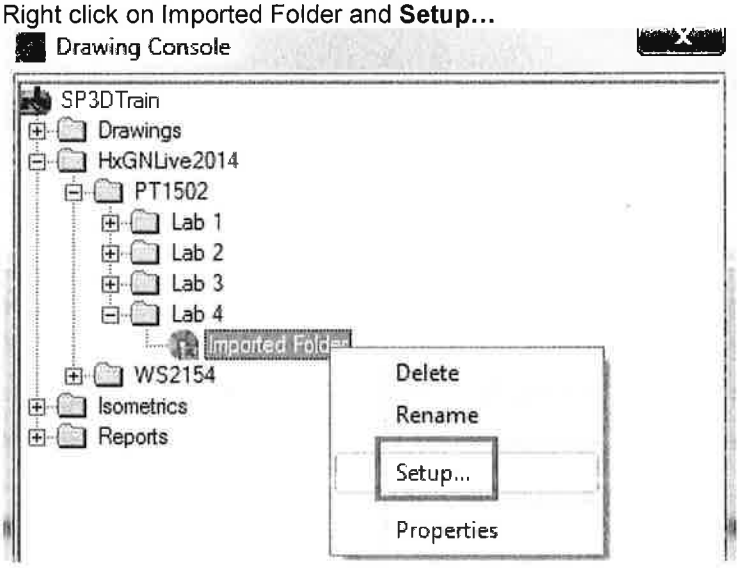
Import and Manage CAD Drawings



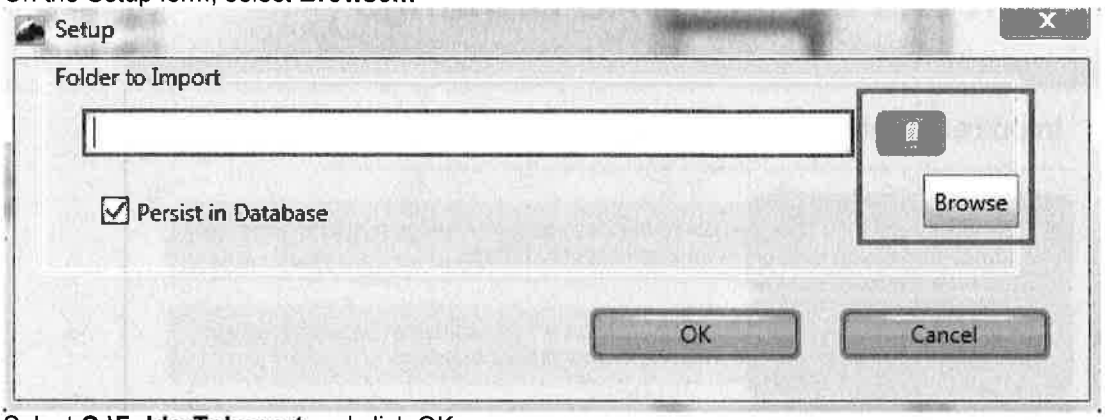
S3D allows the creation of an imported folder to manage files that were created outside of S3D. We will, as an example, create an imported folder that manages sha, dgn, dwg and dxf files. These may then be published if you are in an integrated environment.

Persisted Folder

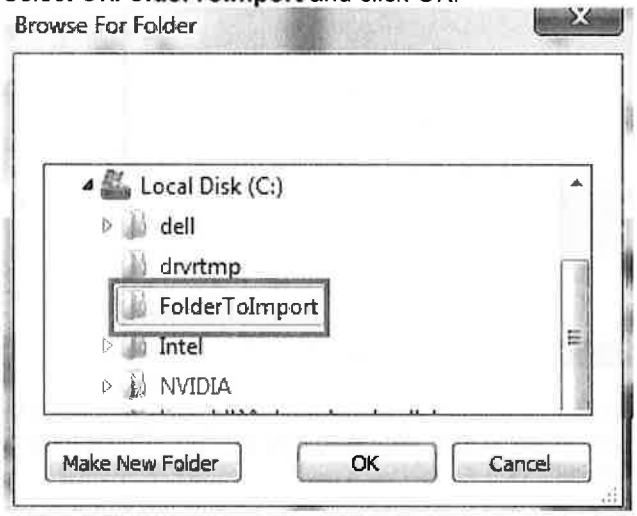
1. In the Drawing Console, expand **HxGNLive2014\PT1502\Lab 4\Imported Folder**
2. Right click on Imported Folder and **Setup…**



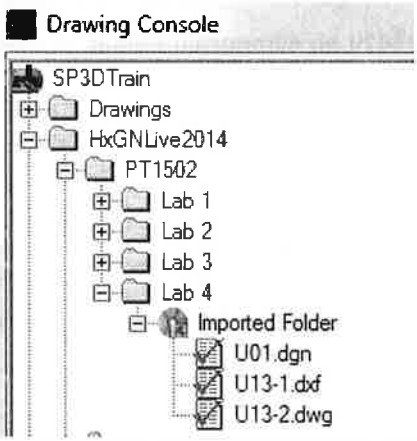
3. On the Setup form, select **Browse...**



4. Select **C:\FolderToImport** and click OK.

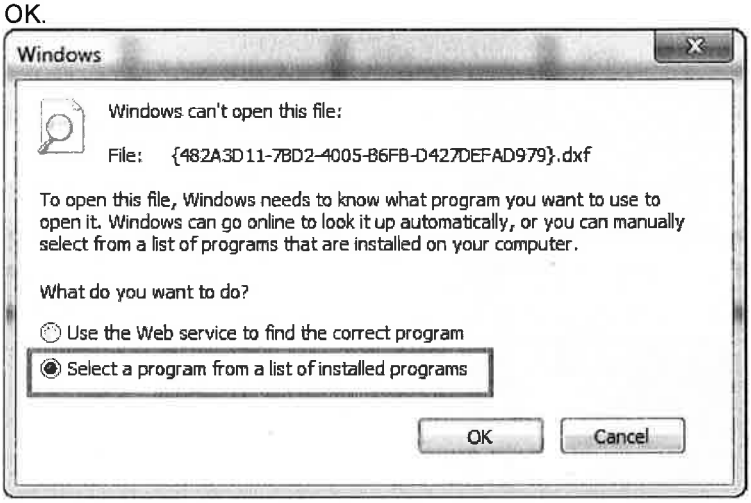


5. Click OK to complete the import. An entry is created in the Drawing Console for each file in the folder.

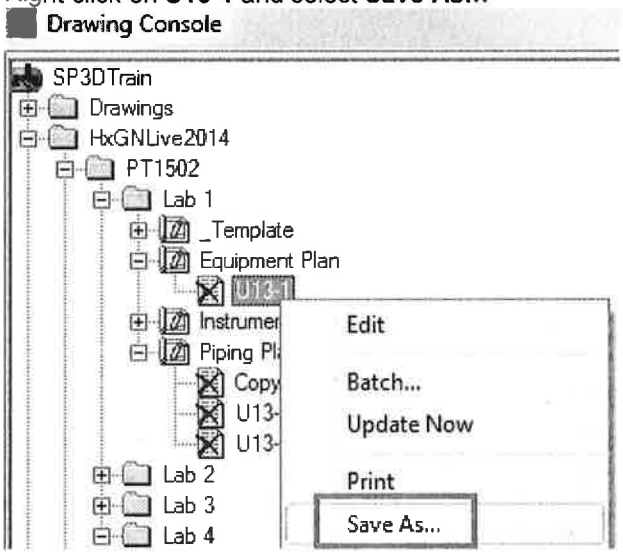


6. Right click on any of the drawings and select Properties. The standard Smart 3D drawings properties form is shown

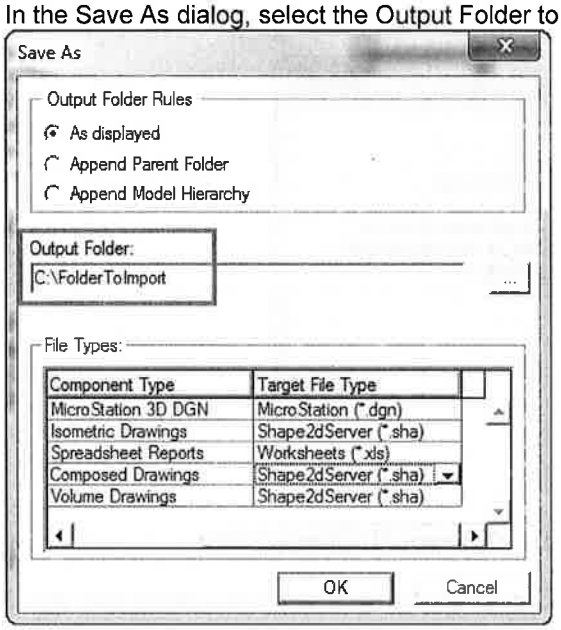
7. Right click on **U13-1.dxf** and select **Open**, a dialog is shown, choose the second option and click OK.



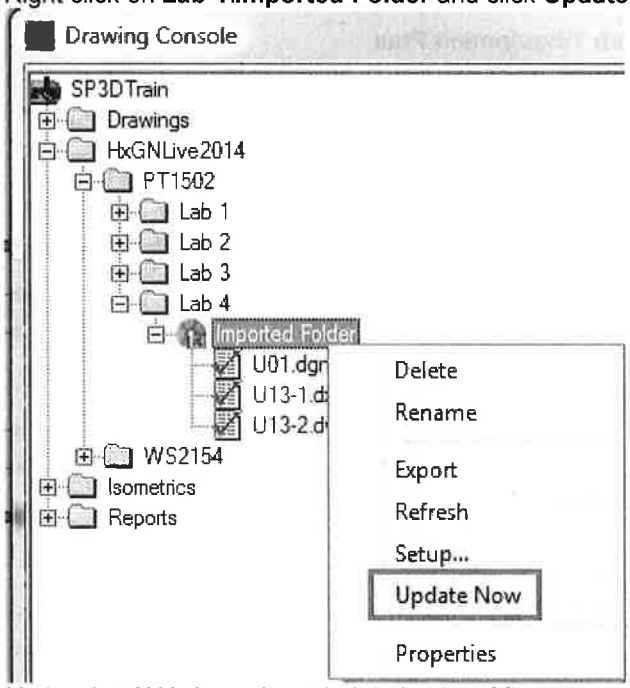
8. Browse **to C:\Program Files (x86)\Smart3D\Common2D\Shape2D\Bin and select Shape2DServer.exe**, then click **OK**.
9. The file opens in SmartSketch Drawing Editor. View the file to see it is a piping plan with a MTO report.
10. Close SmartSketch Drawing Editor.
11. Expand **HxGNLive2014\PT1502\Lab 1\Equipment Plan**.
12. Right click on **U13-1** and select **Save As...**



13. In the Save As dialog, select the Output Folder to be **C:\FolderToImport** and click **OK**.



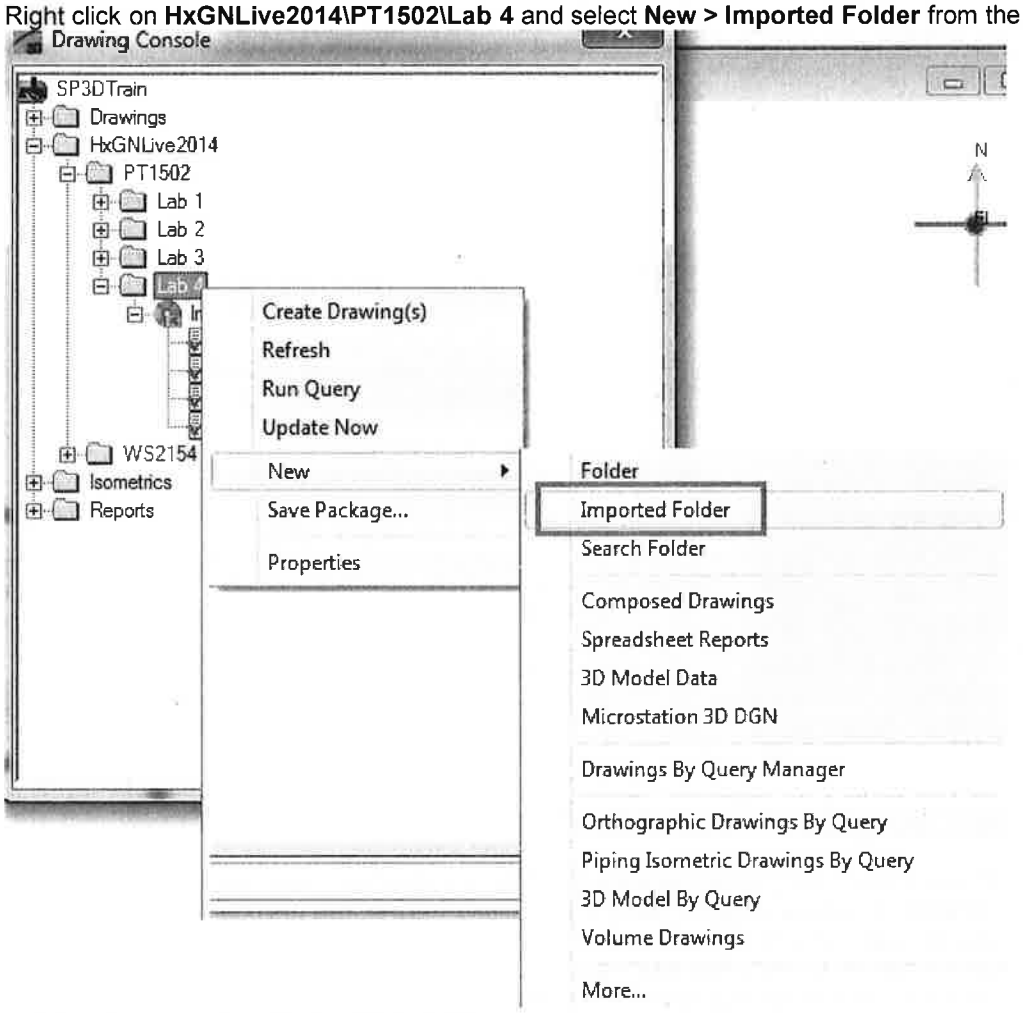
14. Right click on **Lab 4\Imported Folder** and click **Update Now**



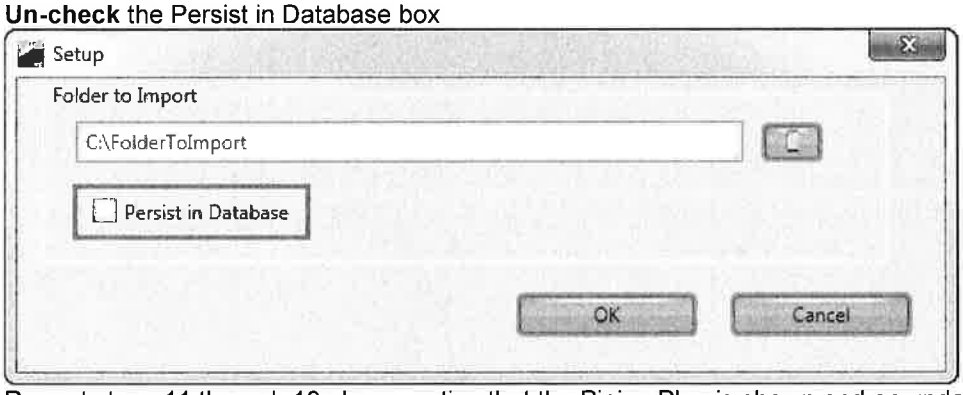
15. Notice that **U13-1.sha** is added to the list of files.
16. Now expand **HxGNLive2014\PT1502\Lab 1\Piping Plan**
17. Right click on **U13-1** and select **Save As...**
18. In the Save As dialog, select the Output Folder to be **C:\FolderToImport** and click **OK**.
19. Right click on **U13-1.sha** and **Open**, view that this is the equipment plan drawing.
20. Right click on **U13-1.sha** and **Update**
21. Right click on **U13-1.sha** and **Open**, now view that this is the piping plan drawing.

Non-persisted Folder

1. Right click on **HxGNLive2014\PT1502\Lab 4** and select **New > Imported Folder** from the menu



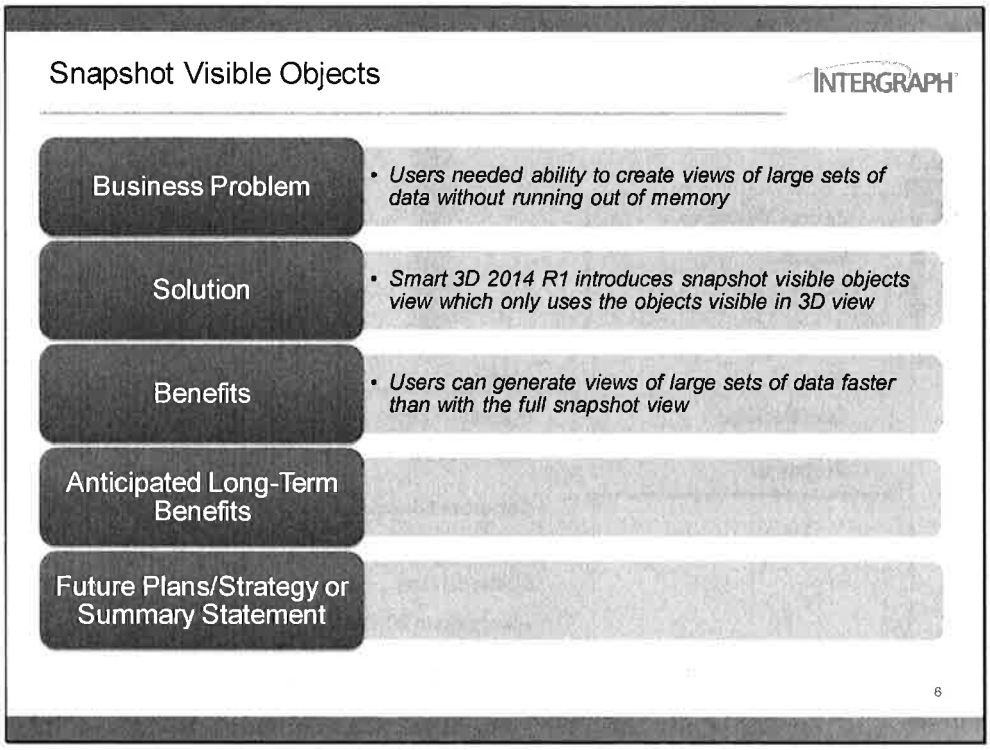
2. Right click on Imported Folder (2) and **Setup ...**
3. Browse to **C:\FolderToImport**
4. **Un-check** the Persist in Database box



5. Repeat steps 11 through 19 above, notice that the Piping Plan is shown and an update is not necessary to reflect the current state of the folder on disk.

Snapshot Enhancements

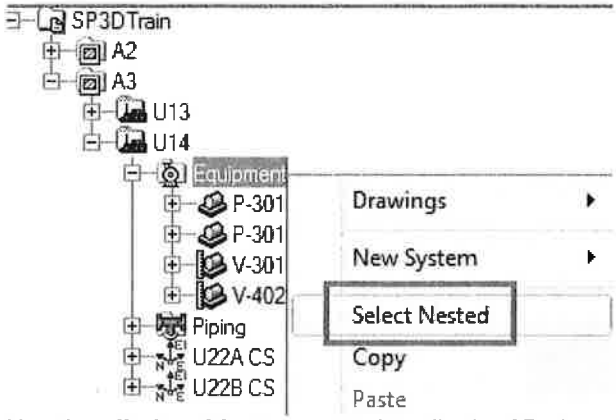
Snapshot Visible Objects



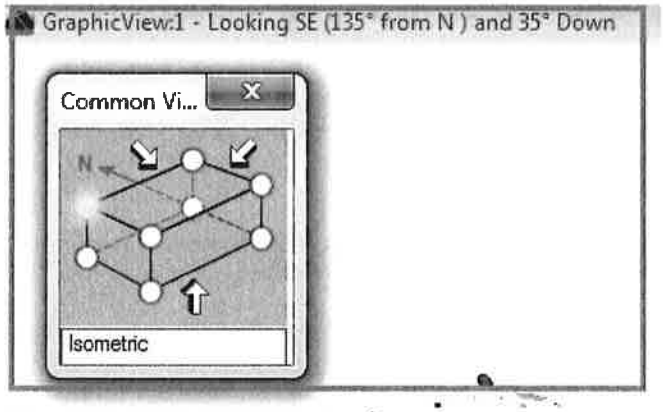
A snapshot view is often needed for a quick WYSIWYG snapshot of the contents of a workspace – clipped and hidden objects are not needed in the resulting view. A new method of making a snapshot called 'snapshot visible objects' is introduced in S3D 2014 R1. This method is a "true snapshot" and only processes these objects which are visible in the 3D view based on the orientation, clipping and hide/show settings. The list of OIDs of the objects is stored with the view and volumetric queries are not performed at update time. This results in a significantly smaller number of objects processed by the update resulting in a significantly faster view update. *An option to update the view immediately or defer for later processing will be available in the future.*

1. In the workspace explorer expand **A3 > U14 > Equipment**

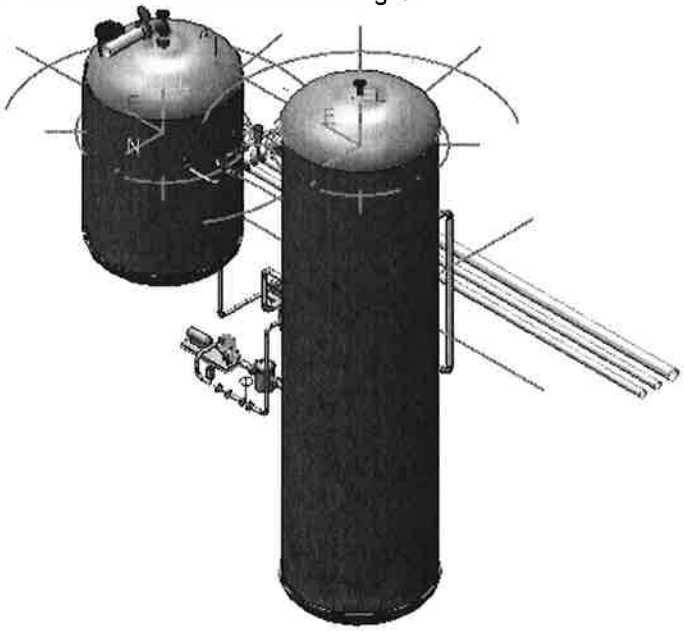
2. Right click on Equipment and **Select Nested.**



3. Use the **clip by object** command to clip the 3D view
4. Use the Common View command to set the orientation to isometric view **Looking SE and 35 Down**

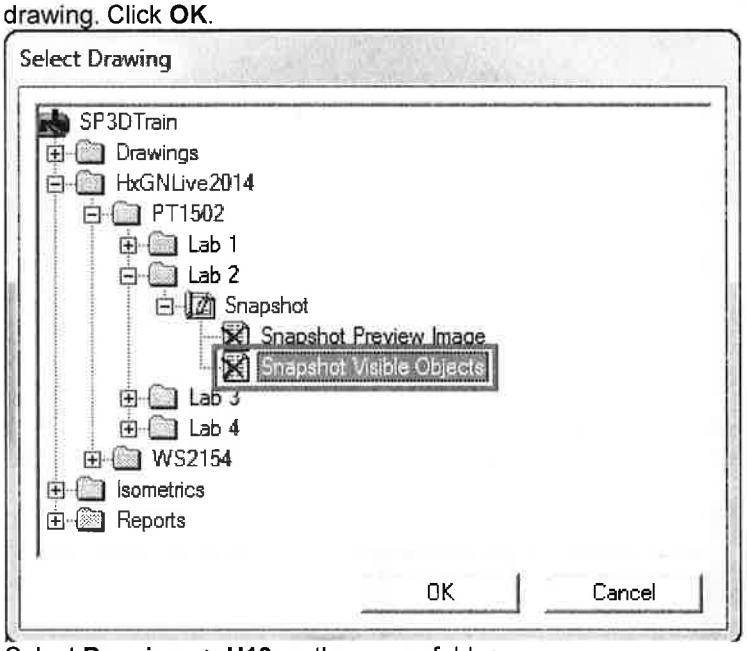


5. The view should look like below image.

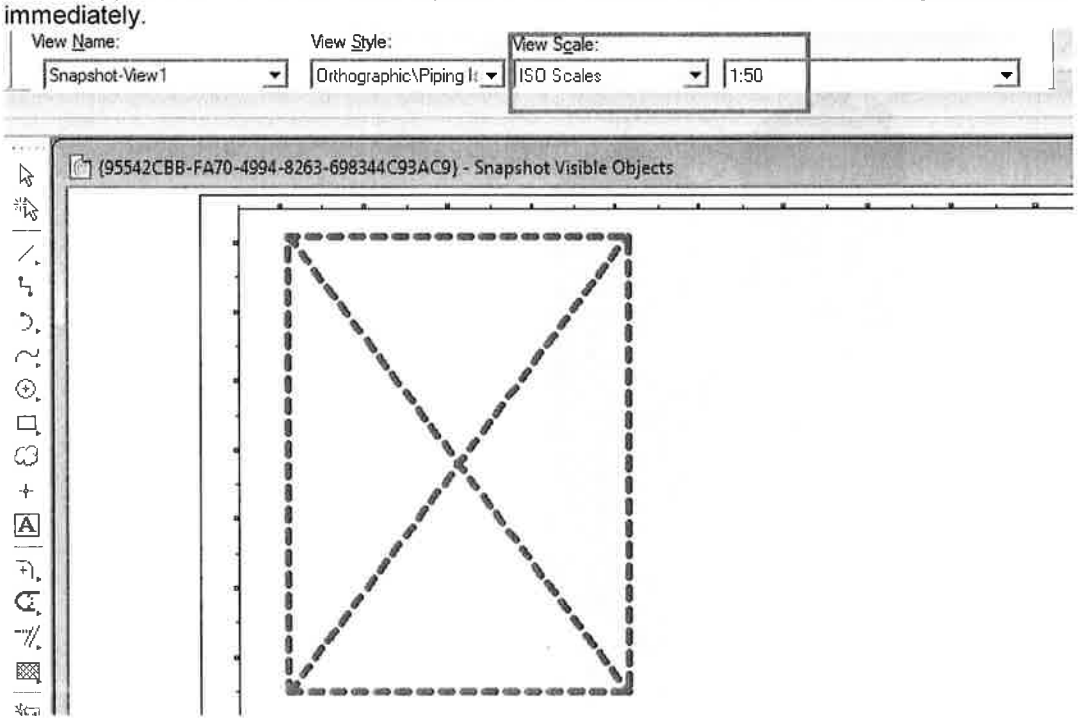


6. Select **Tools > Snapshot View > Visible Objects Only**. The Select Drawing dialog is shown.

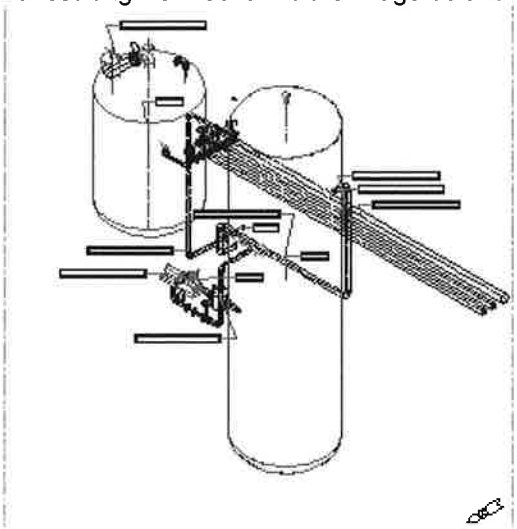
7. Expand **HxGNLive2014 > Lab 2 > Snapshot** and select the **Snapshot Visible Objects** drawing. Click **OK**.



8. Select **Drawings > U13** as the space folder
9. Select **Orthographic\Piping Isometric** as the view style
10. Select **Default Naming Rule** as the Naming Rule
11. Click **Finish**. The drawing is opened and the **Place Snapshot View** command is started.
12. Select **ISO Scales** for View Scale and **1:50** as the scale. Then move your mouse over the drawing area.
13. A view appears on the cursor, click to place on the **left half** of the sheet. View begins updating immediately.

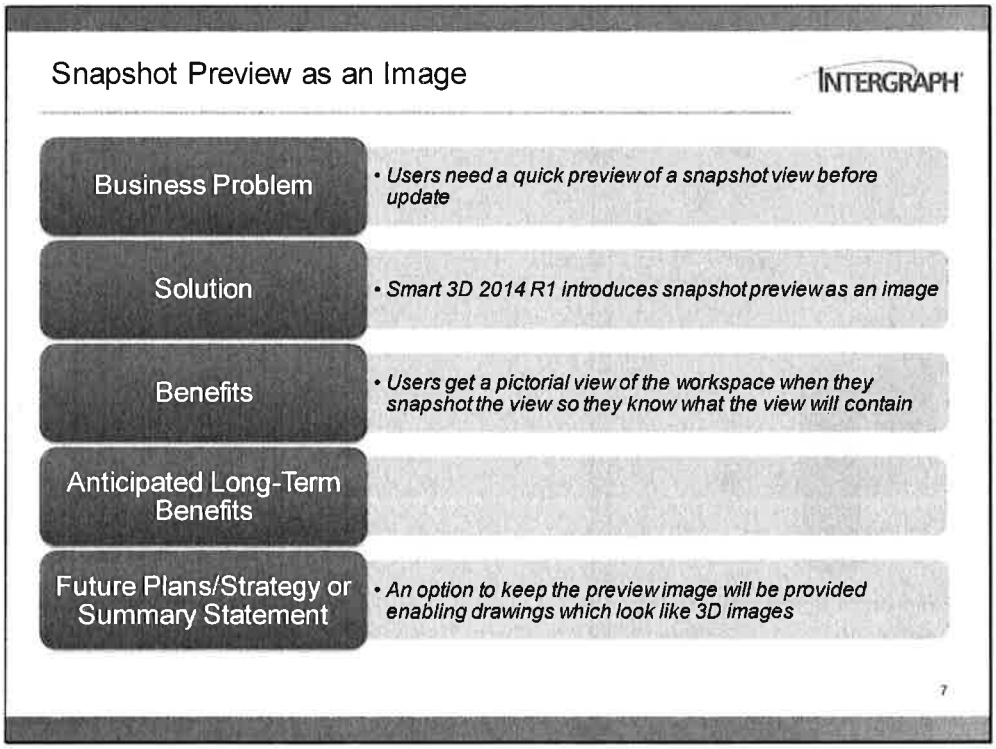


14. The resulting view looks like the image below.



15. Close SmartSketch drawing editor and save the drawing when prompted.

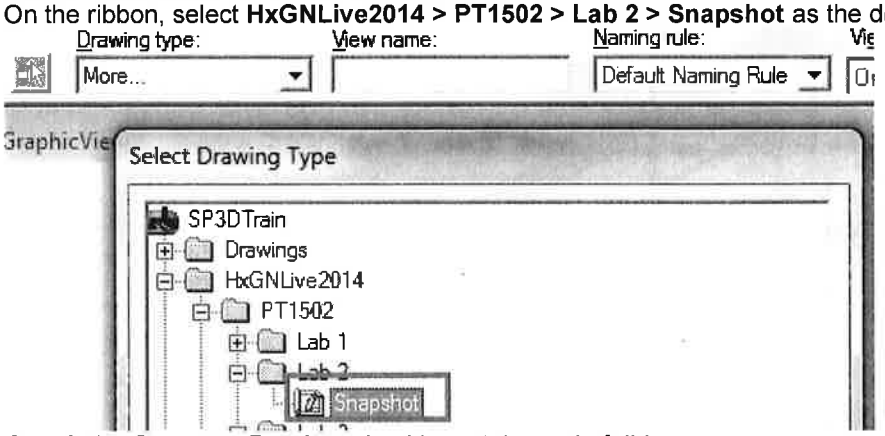
Snapshot Preview as Image



In previous versions, the snapshot view command had an option to generate preview. This preview was generated using 3D VHL – objects in the 3D view were processed through the view style selected and a preview was shown at placement time on the sheet. In 2014 R1, this preview VHL has been replaced

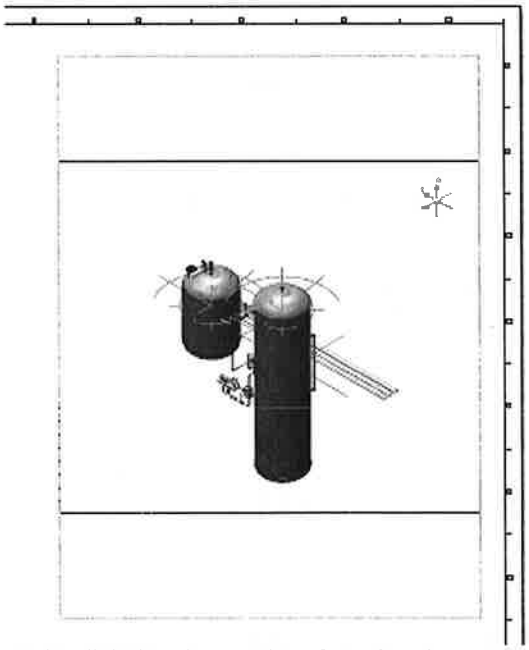
with a raster image of the 3D view. This preview is much quicker than the previous one since it does not do any processing.

1. **Tools > Snapshot View > All Objects**
2. On the ribbon, select **HxGNLive2014 > PT1502 > Lab 2 > Snapshot** as the drawing type

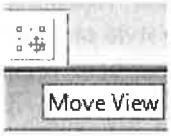


3. **Check** the **Generate Preview** checkbox at the end of ribbon.

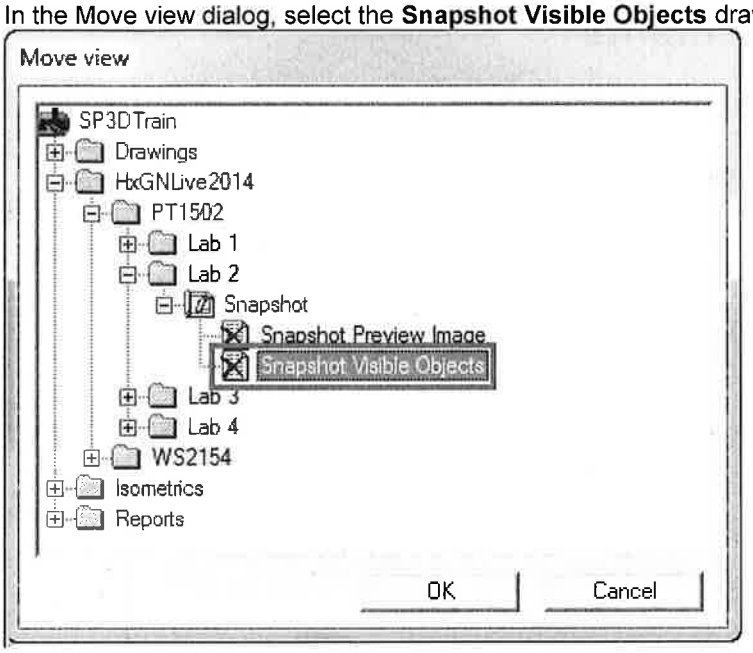
4. Click **Finish**.
5. In Drawing Console, Edit the drawing **HxGNLive2014 > PT1502 > Lab 2 > Snapshot > Snapshot Preview Image**
6. Start the **Place Snapshot View** command. A view image appears on the cursor.
7. Place the view on the **right side** of the sheet. An image of the 3D view is shown.



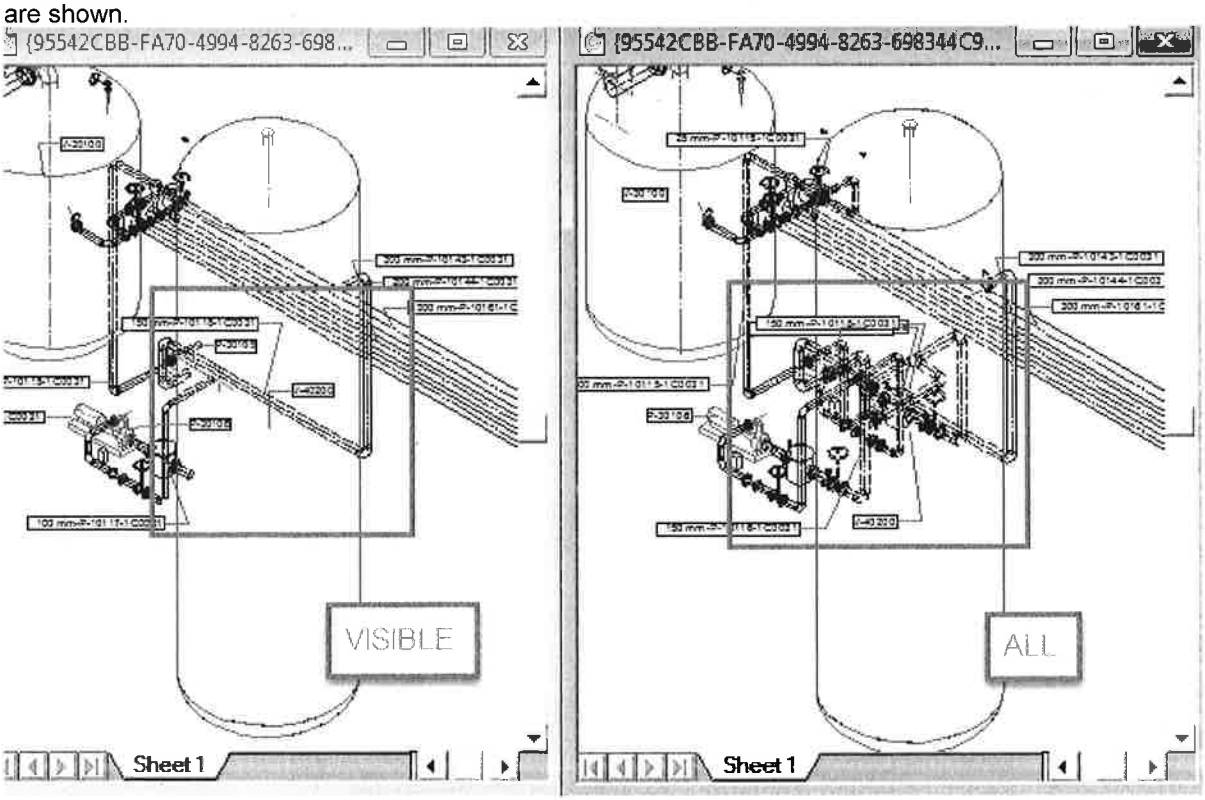
8. Right click the view and **update** the view.
9. Once the view update is completed, select the view and start the **Move View** command.



10. In the Move view dialog, select the **Snapshot Visible Objects** drawing and click OK.

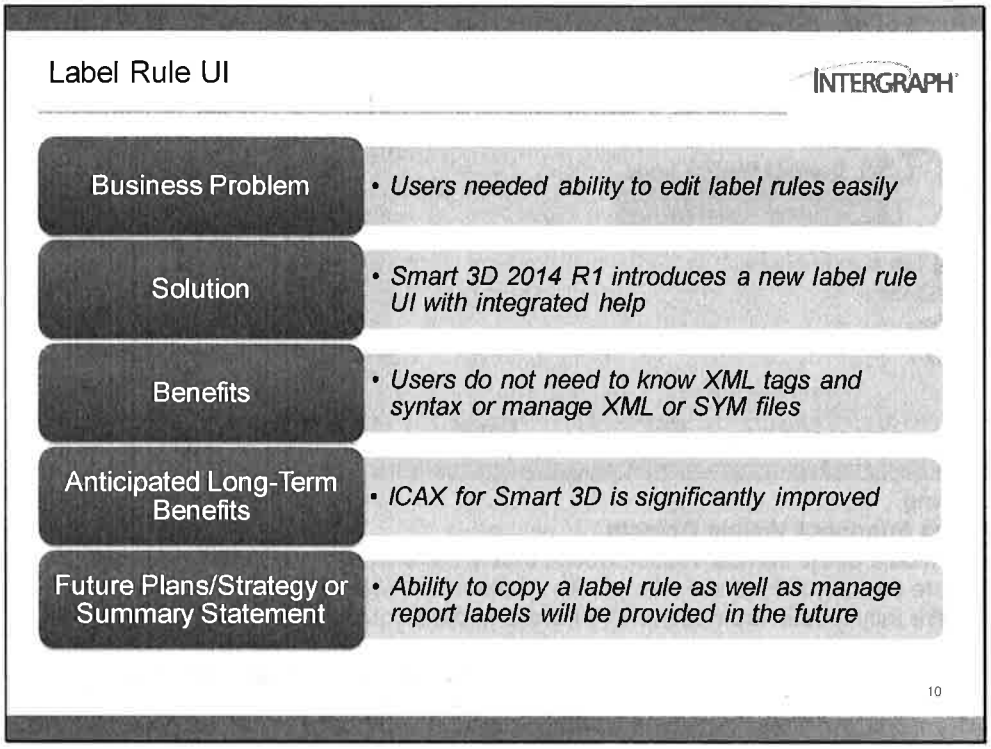


11. Close the drawing.
12. **Edit** the drawing **Snapshot Visible Objects**
13. Zoom into the middle of the vertical vessel. Notice that in the snapshot visible objects view, objects which are partially hidden are shown with a hidden line style in the hidden portion but objects which are fully hidden are not shown whereas in the all objects view, all hidden objects are shown.



Labeling Enhancements

Label Rule UI



Smart 3D 2014 R1 introduces the label rule manager user interface. This will allow users to edit label rules using a GUI. The label rule manager allows users to edit label rules containing multiple label templates such as the control point coordinate labels. Labels containing multiple text boxes are not supported at this time but will be supported in the future.

The template list is available at the top of the label rule manager. Once a template is selected, information is shown in one of three tabs.

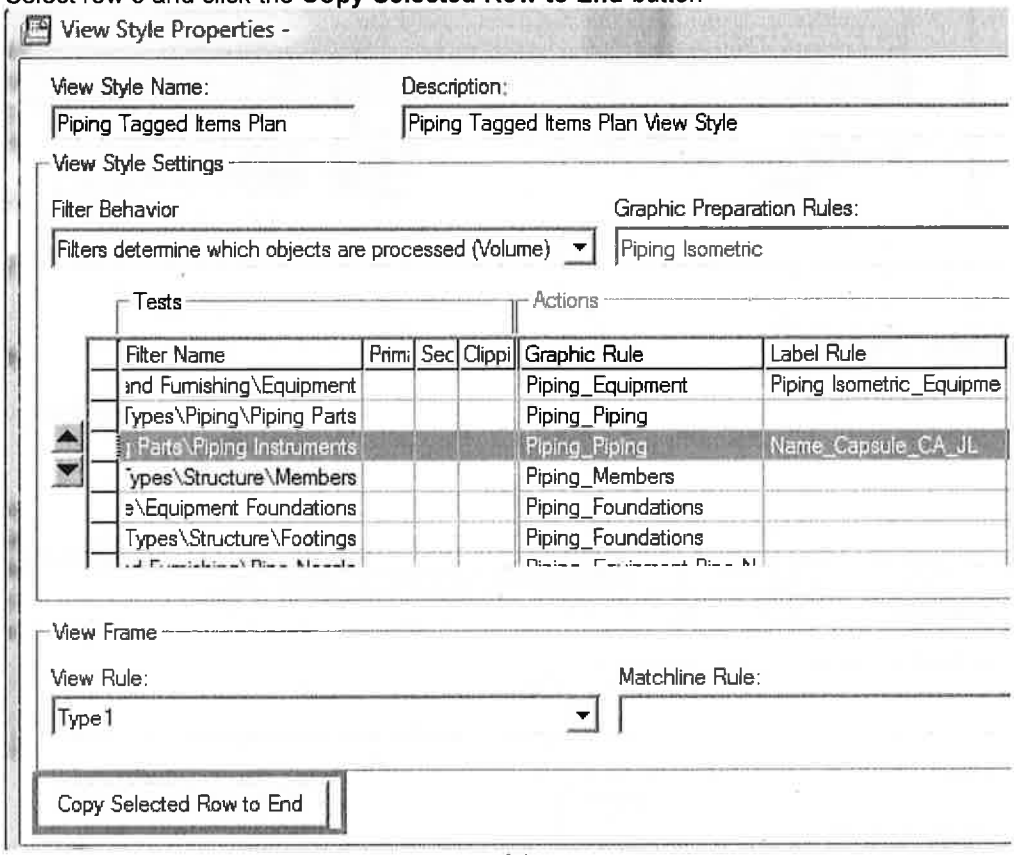
The properties tab shows the properties of the template. This allows the users to edit the sym file associated with a label template (which decides how the label looks) and choose a rtp file (which decides the value the label shows).

The properties tab also includes the content module (which decides what data is shown by the label), the positioning modules (which decide where the label appears on the drawing) as well as the leader and other label settings.

Creating Tagged Items Plan

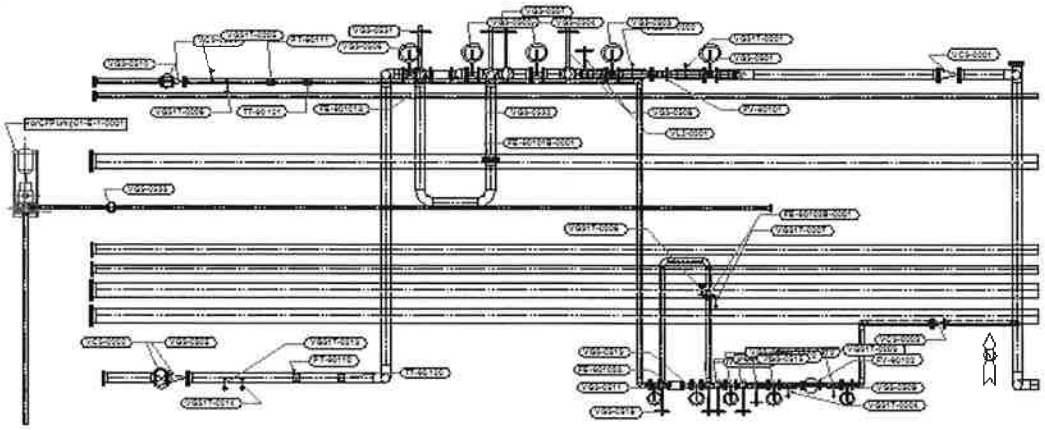
1. Switch to the **Drawings and Reports** task.
2. **Tools > Define View Style**
3. Select the **Orthographic** view style type
4. Select the **Piping Isometric** view style and edit **Properties**

5. Change the name to **Piping Tagged Items Plan** and description to **Piping Tagged Items Plan View Style**
6. Click in the **Filter** column in **row 3** and move to the end of the field
7. Enter **\Piping Instruments** at the end of the field and press Enter. This will change the filter in the field to **Catalog Filters\Default Filters\SP3D Object Filters\Object Types\Piping\Piping Parts\Piping Instruments**. Alternatively, you may pick the filter using **More...**
8. Click in the **Label Rule** column in **row 3** and select **More..**
9. Select the **Name_Capsule_CA_JL** label and click OK.
10. Select row 3 and click the **Copy Selected Row to End** button



11. Repeat above step to create another copy of the row.
12. Click in the **Filter** field in one of the two new rows and select **More...**
13. Select the **Catalog Filters\Default Filters\SP3D Object Filters\Object Types\Piping\Piping Parts\Piping Specialty Items** filter
14. Click in the Filter field in the other row and select **More...**
15. Select the **Catalog Filters\Default Filters\SP3D Object Filters\Object Types\Piping\Piping Parts\Piping Valves** filter
16. Select the two rows and **move up** so they are rows 4 and 5
17. Click **OK** to save the view style
18. Click **Close** to close the Define View Style dialog
19. In the drawing console, expand **HxGNLive2014\PT1502\Lab 1\Piping Plan**
20. In the detail view right click the **U13-1** drawing and **Copy**
21. Right click the **Instrument Plan** component and **Paste** using the **Drawing(s) Only** option
22. Edit the **U13-1** in the **Instrument Plan** component
23. Edit view properties and select the **Piping Tagged Items Plan** view style

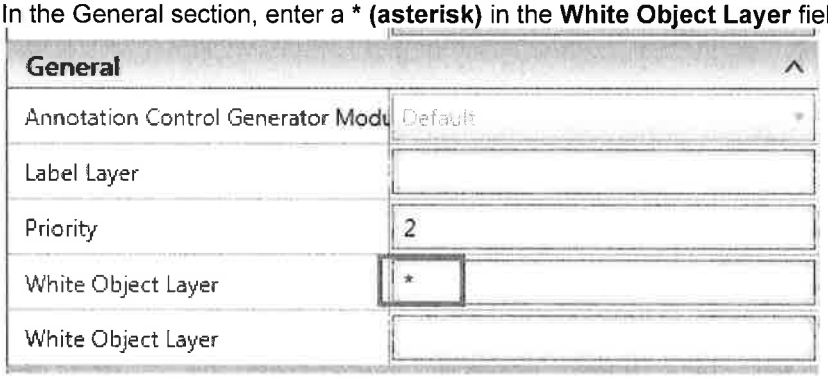
24. Update the view, result should look similar to below.



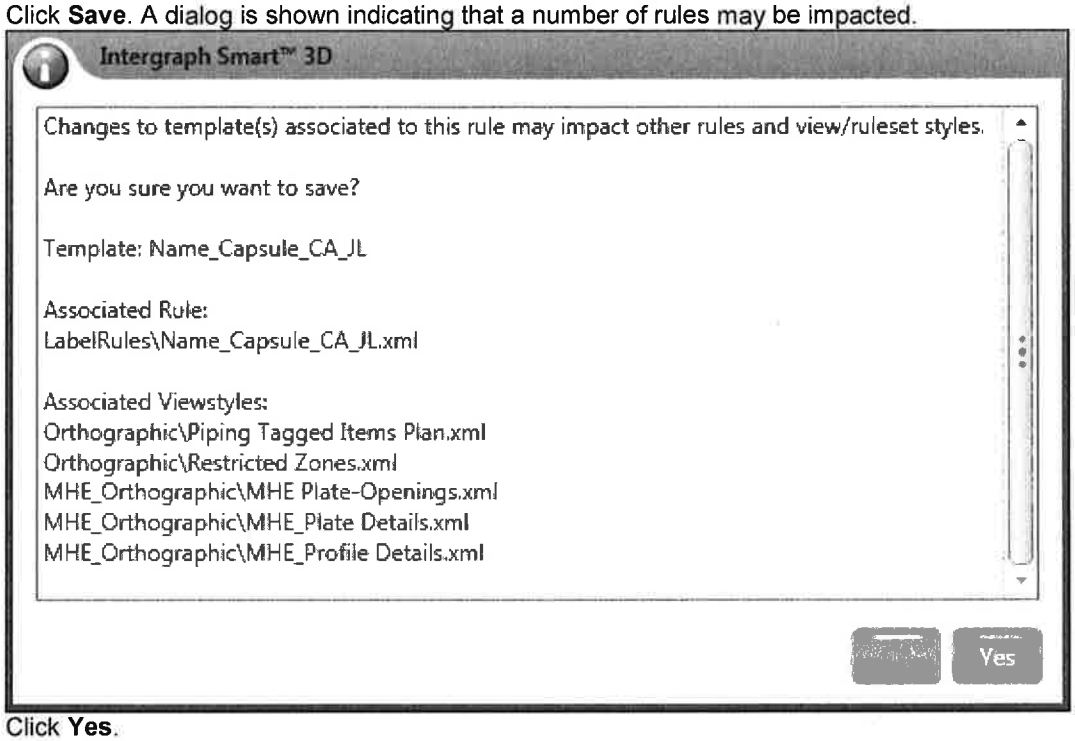
25. Close SmartSketch Drawing Editor

Adding White Layers

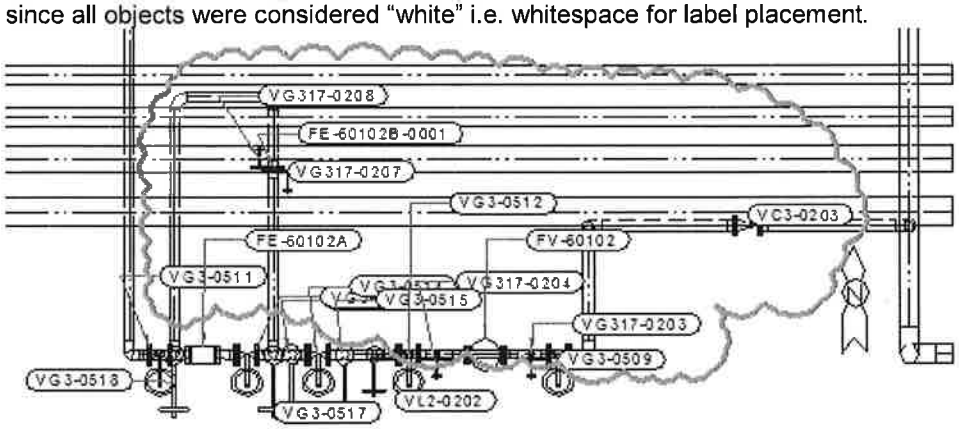
1. **Copy and paste** the Instrument Plan\U13-1 drawing in the same component using the Drawing(s) Only option. **Rename** the pasted drawing to **U13-1-AllWhite**
2. **Tools > Define View Style**
3. Select the **Piping Tagged Items Plan** view style and edit properties
4. Select the **Name_Capsule_CA_JL** label rule and press **F12** to edit its properties.
5. In the General section, enter a * **(asterisk)** in the **White Object Layer** field and press **Enter**.



6. Click **Save**. A dialog is shown indicating that a number of rules may be impacted.



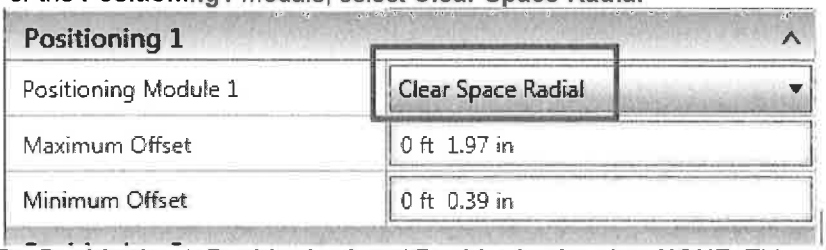
7. Click **Yes**.
8. Click **OK** to save the view style.
9. Click **Close** to close the Define View Style form.
10. Edit **U13-1-AllWhite** drawing and **update view**.
11. Zoom in to the bottom right of the view. Notice that many labels now overlap the piping objects since all objects were considered "white" i.e. whitespace for label placement.



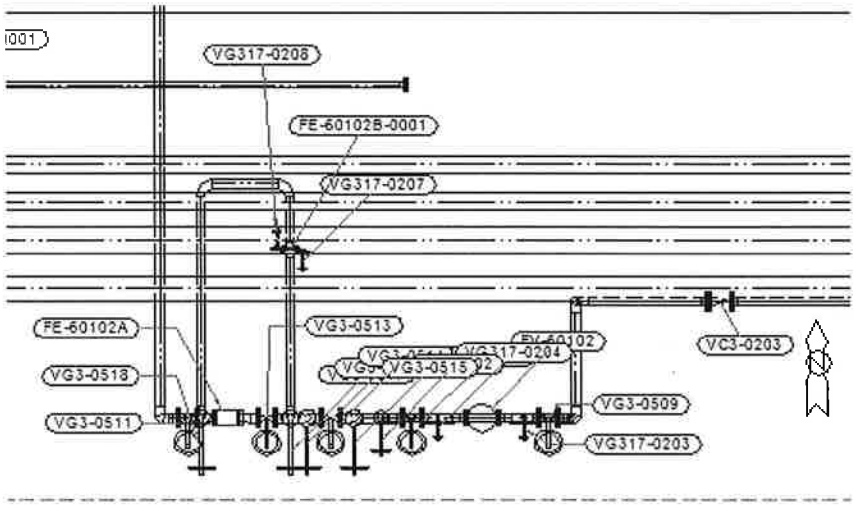
Using Radial Positioning Module

1. Copy and paste the Instrument Plan\U13-1 drawing in the same component using the Drawing(s) Only option. Rename the pasted drawing to **U13-1-Radial**
2. **Tools > Define View Style**
3. Select the **Piping Tagged Items Plan** view style and edit properties
4. Select the **Name_Capsule_CA_JL** label rule and press **F12** to edit its properties.
5. **Delete the *** in the **White Object Layer** and press Enter, this removes the row.

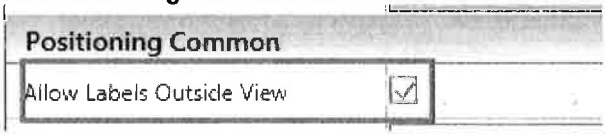
6. For the **Positioning1** module, select **Clear Space Radial**



7. For **Positioning4**, **Positioning3** and **Positioning2**, select **NONE**. This removes the modules from the list.
8. Click Save and Yes on the dialog shown
9. Click OK to save the view style.
10. Click Close to close the Define View Style form.
11. Edit **U13-1-Radial** drawing and update view. Zoom in on lower right of the view, it looks like below.

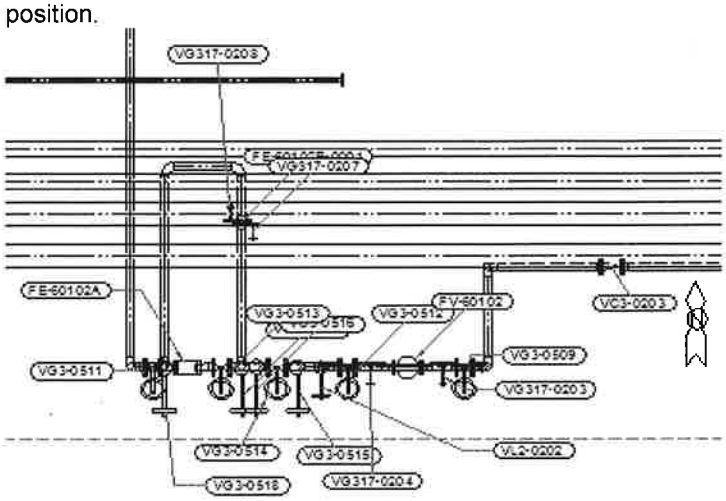


12. Re-edit the view style and the label rule as above. **Check** the **Allow Labels Outside View** box in the **Positioning Common** section and save the label rule and the view style.

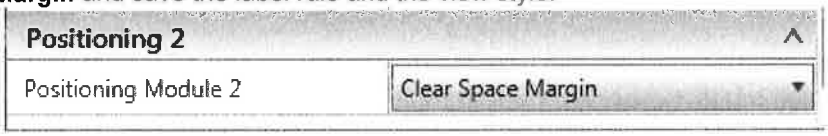


13. Copy and Paste the drawing and rename the pasted drawing to **U13-1-RadialOutsideView**
14. Edit the newly pasted drawing and update the view. Results are like below. Notice that a number of labels are now placed outside the view, resulting in fewer labels which fallback to the absolute

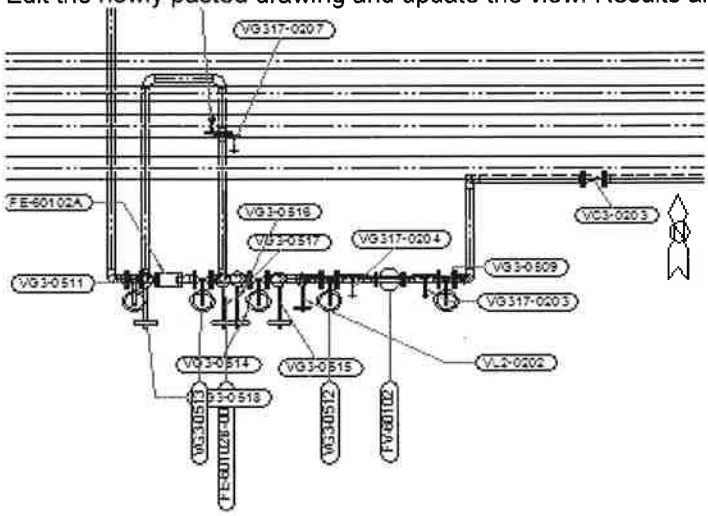
position.



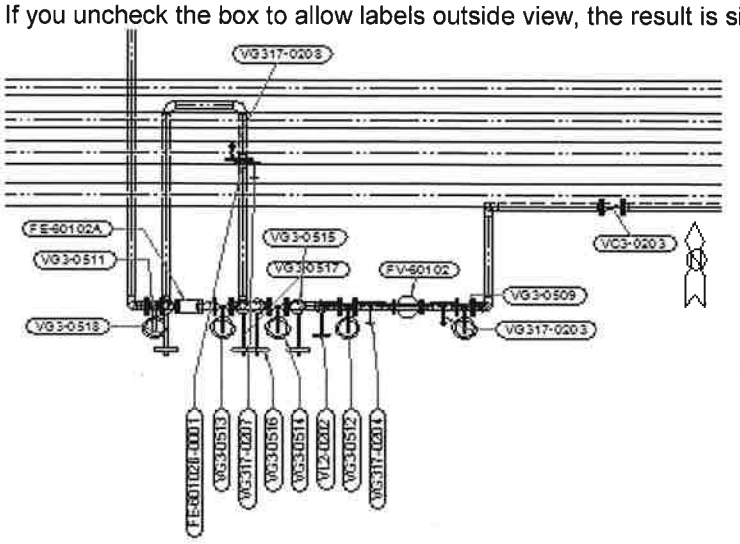
15. Re-edit the view style and the label rule as above. Change the **Positioning2** to be **Clear Space Margin** and save the label rule and the view style.



16. Copy and Paste the drawing and rename the pasted drawing to **U13-1-RadialFallbackMargin**
17. Edit the newly pasted drawing and update the view. Results are similar to below.



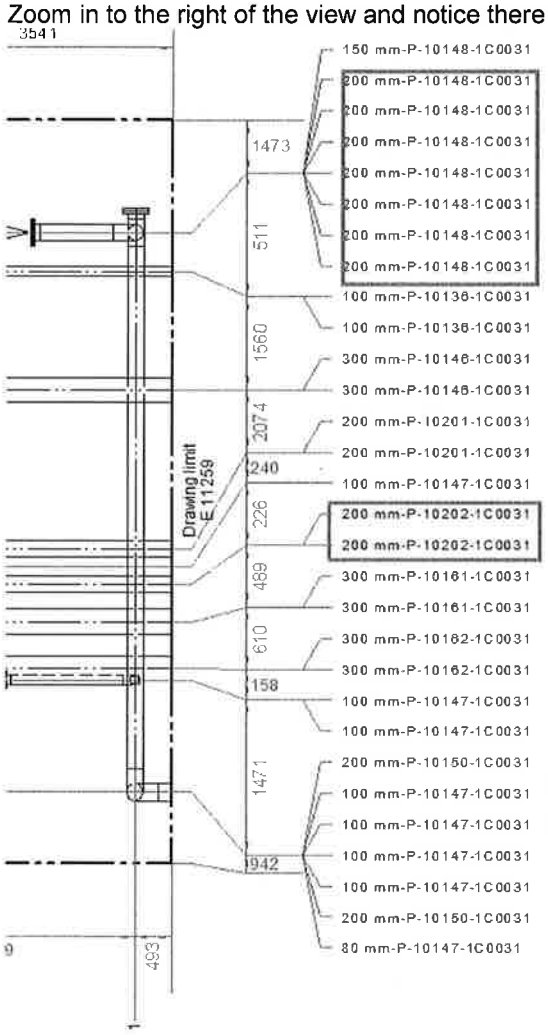
18. If you uncheck the box to allow labels outside view, the result is similar to below.



Editing Piping Plan Label to Remove Duplicates

1. Edit the **Piping Plan > U13-1** drawing

2. Zoom in to the right of the view and notice there are many duplicate labels.

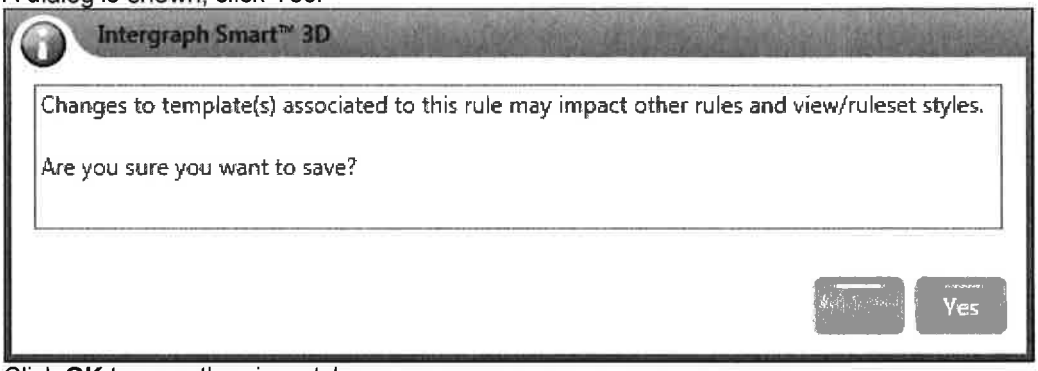


3. Edit properties of two of the duplicate labels with the value **200 mm-P-10202-1C0031** near the middle of the view and look at the user tab. Notice that one of them is placed by the label *Piping Plan_LineNumber_Style2* and the other is placed by *Piping Plan_LineNumber_Style2_Clipped*
4. Edit properties of two of the duplicate labels with the value **200 mm-P-10148-1C0031** near the top of the view and look at the user tab. Notice that many of them are placed by the label *Piping Plan_LineNumber_Style2*
5. Close the drawing.
6. Switch to the Drawings and Reports task
7. **Tools > Define View Style**
8. Select the **Piping Plan Style 2** view style and edit properties
9. Add the **Not Clipped** condition to **rows 6 and 7.** This will eliminate duplicate labels drawn for the clipped pipes

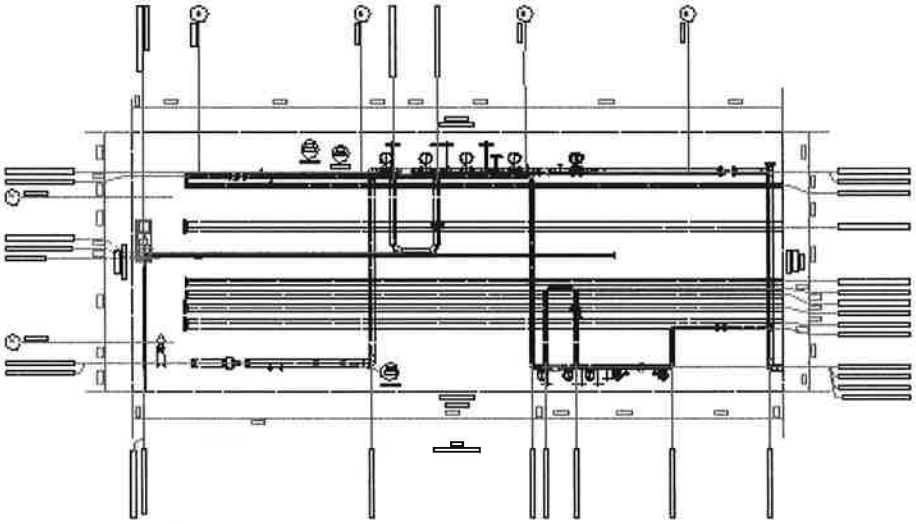
Tests | Actions

	Filter Name	Primary Orientation	S	Clipping	C	Label Rule
	mbers\Type Category\Columns				F	
	nent and Furnishing\Equipment				F	Piping Plan_Equipment_Name_Style2_Nortl
	nent and Furnishing\Equipment				F	Piping Plan_Equipment_Style2_North-East (
	ject Types\Piping\Piping Parts				F	
	ject Types\Piping\Piping Parts			Clipped	F	Piping Plan_LineNumber_Clipped Style2
	ypes\Piping\Piping Parts\Pipes	Parallel, vertical		Not Clipped	F	Piping Plan_LineNumber_Style2
	ypes\Piping\Piping Parts\Pipes	Parallel, horizontal		Not Clipped	F	Piping Plan_LineNumber_Style2

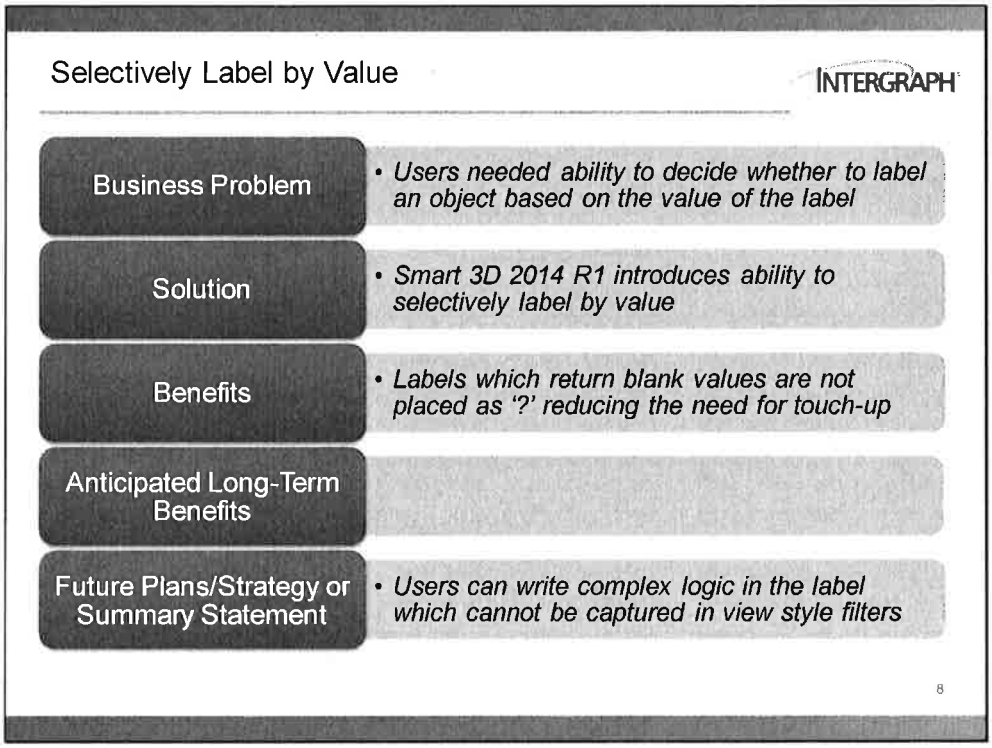
10. Select the **Piping Plan_LineNumber_Style2** label and press **F12** to edit it.
11. The **Maximum Offset for Grouping** value is set to 3.94 in. Set this to **3 ft.**
12. Click **Save**.
13. A dialog is shown, click Yes.



14. Click **OK** to save the view style.
15. Click Close to the Define View Styles dialog.
16. Edit the **Piping Plan > U13-1** drawing
17. Update the view. Result should look like below.



Selectively Label By Value



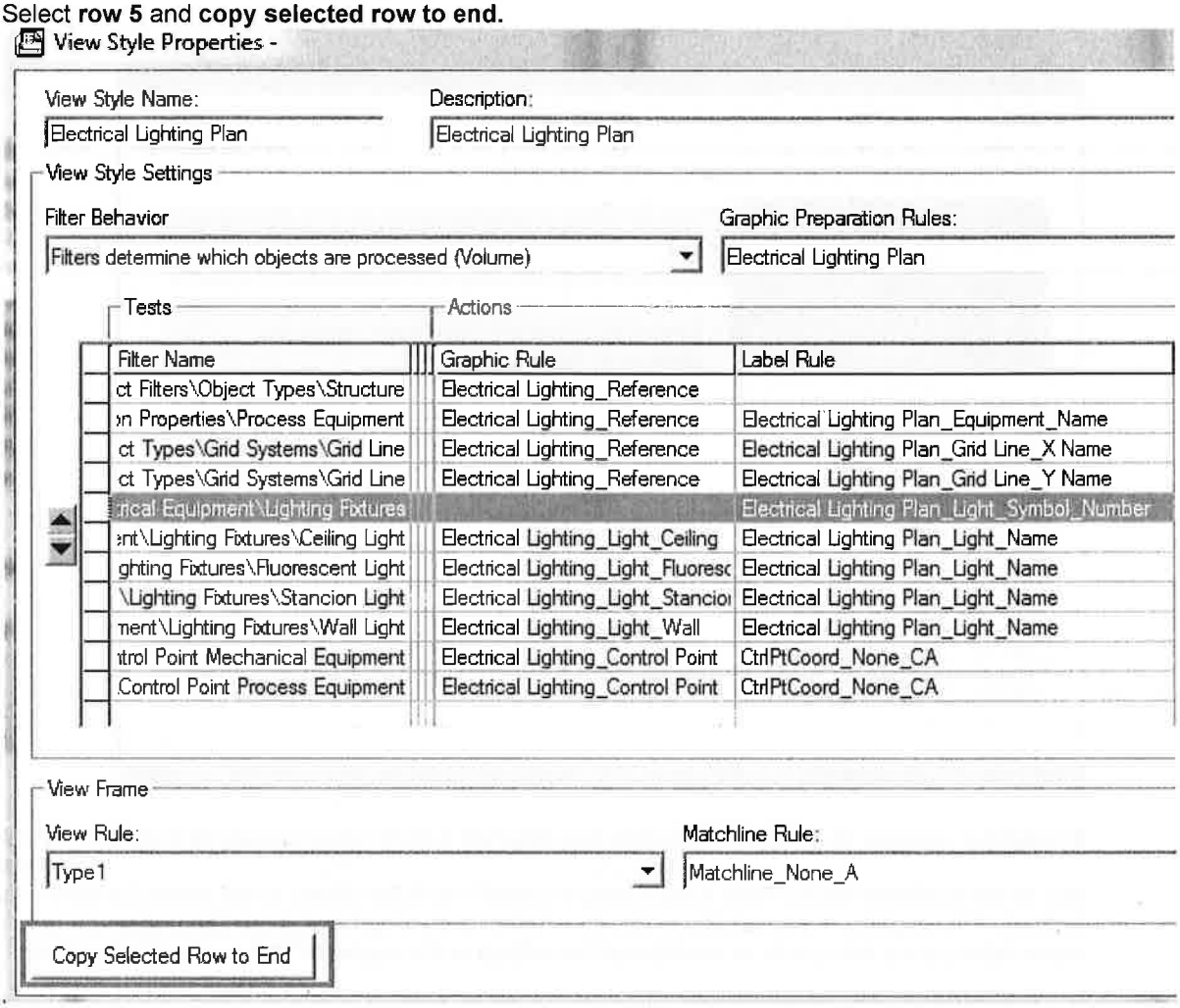
In previous versions of Smart 3D, all labels that returned a blank value would place as a '?'. While this was good for those labels where a blank value was not expected, it produced a lot of '?' where blank was one of the expected values. New functionality in content modules allows to not place the label if the value is blank. This enables the possibility to decide whether a drawing label should be output or not to the report label (query interpreter or conditional formatting) and a separate filter need not be written.

Some examples of this are

a. Placing a label for opening size if the opening is larger than 300 mm in diameter. Since the opening object simply persists a sketch and does not make its dimensions available for filtering, it is not possible to define a filter that returns only those openings which are larger than 300 mm. It is, however, possible to write a VB query interpreter for a label that returns a value if the opening is larger than 300 mm but a blank if the opening is smaller.
b. Continuation labels can be output on orthographic drawings if the two components at a connection belong to different pipelines (or modules, areas, systems etc). No label will be output if both the parts in a connection belong to the same pipeline.
c. Notes on objects can be output where the note is present and if a note is not present, no label is output.

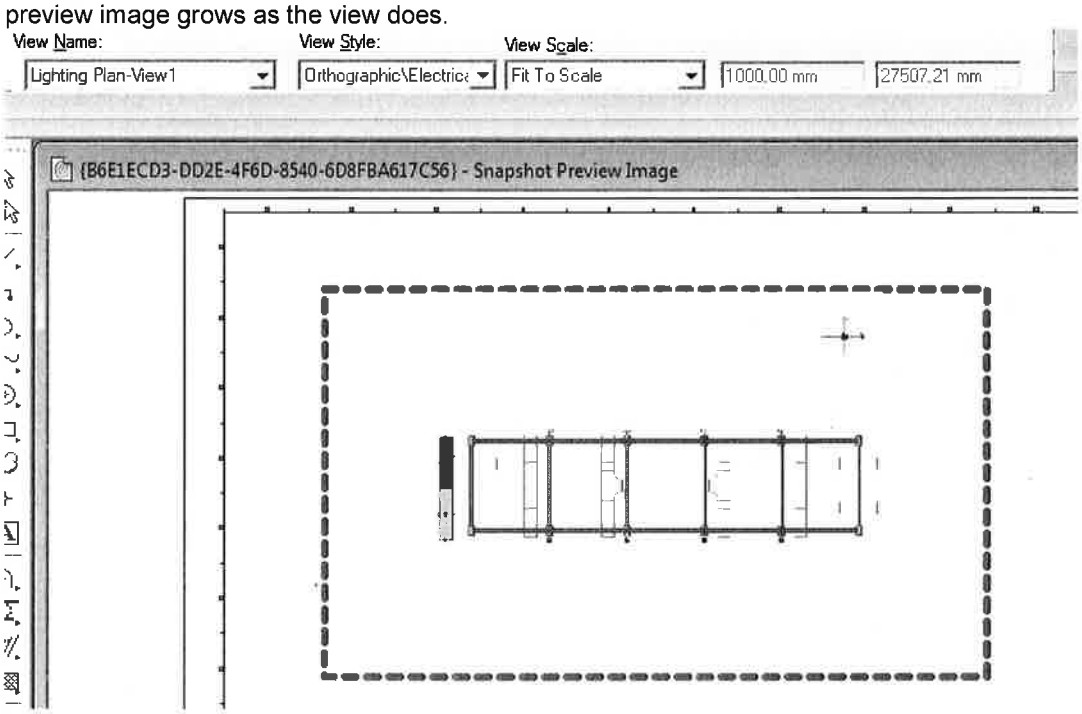
1. **Tools > Define View Style**
2. Select the **Electrical Lighting Plan** view style and edit properties

3. Select **row 5** and **copy selected row to end.**

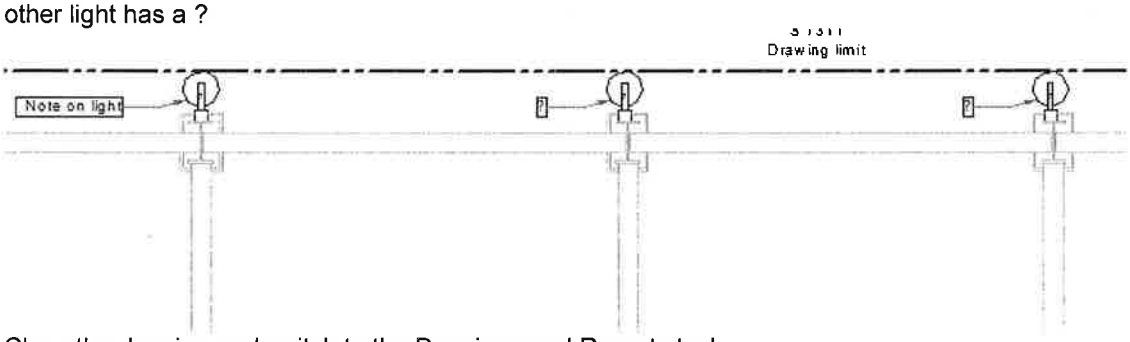


4. In the pasted row, click in the Label Rule field and enter **Note_Rect_CA_JL** and press **Enter**
5. Click OK to save the view style
6. Switch to the Common task
7. In the workspace explorer, select **A2 > U07** and select nested
8. **Clip by object** and set the view to **plan** view.
9. **Tools > Drawing Console**
10. Rename **Lab 3\Piping Plan** to **Lighting Plan**
11. Expand **Lab 2\Snapshot** component
12. Right click the drawing **Snapshot Preview Image** and **Cut**
13. Right click **Lab 3\Lighting Plan** and **Paste**
14. **Tools > Snapshot View > All Objects**
15. For the Drawing Type, select **Lab 3\Lighting Plan**
16. For the View Style, select **Orthographic\Electrical Lighting Plan**
17. For the Space Folder, select **Drawings**
18. Click **Finish** to snapshot the view.
19. Edit the **Lab 3\Lighting Plan\Snapshot Preview Image** drawing
20. Start the **Place Snapshot View** command

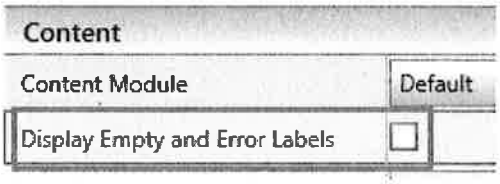
21. Change the scale to **Fit to Scale** and drag and draw the view in the sheet. Notice that the preview image grows as the view does.



22. Update the view
23. Zoom in to the top left portion of the view. Notice that while the leftmost light has a note, every other light has a ?

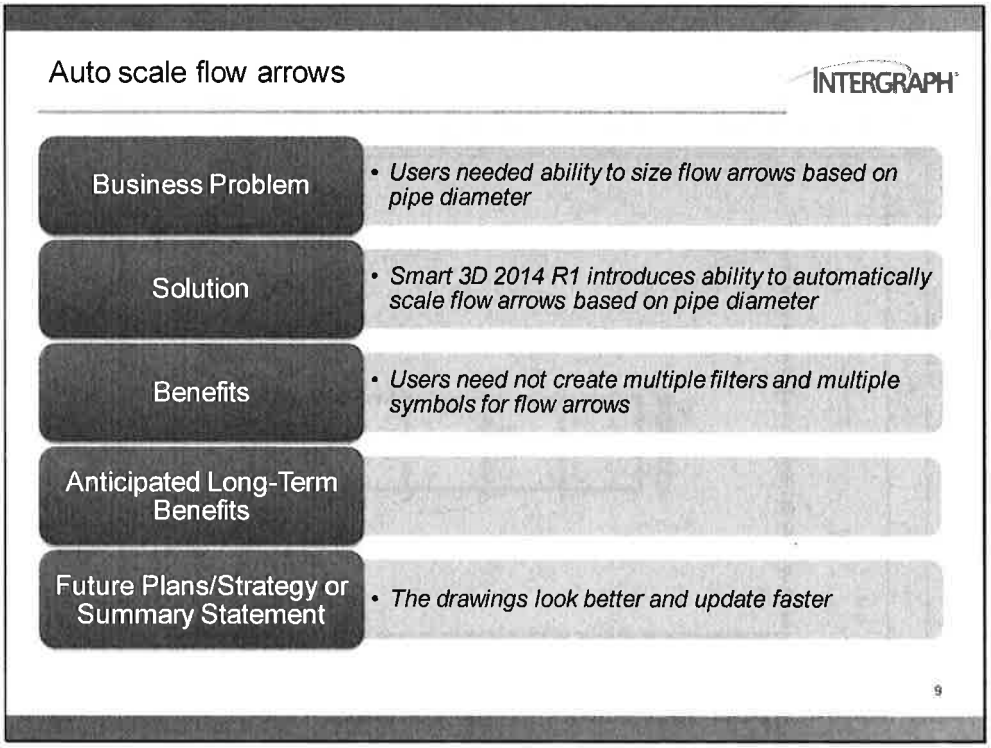


24. Close the drawing and switch to the Drawings and Reports task
25. **Tools > Define View Style**
26. Edit the **Electrical Lighting Plan** view style
27. Select the **Note_Rect_CA_JL** label and press **F12**
28. In the **Content** section, **uncheck** the box for the property **Display Empty and Error Labels**



29. Save the label, close the view style and edit the drawing
30. Update the view.
31. Notice that the labels with '?' are no longer output.

Auto-scale Flow Arrows

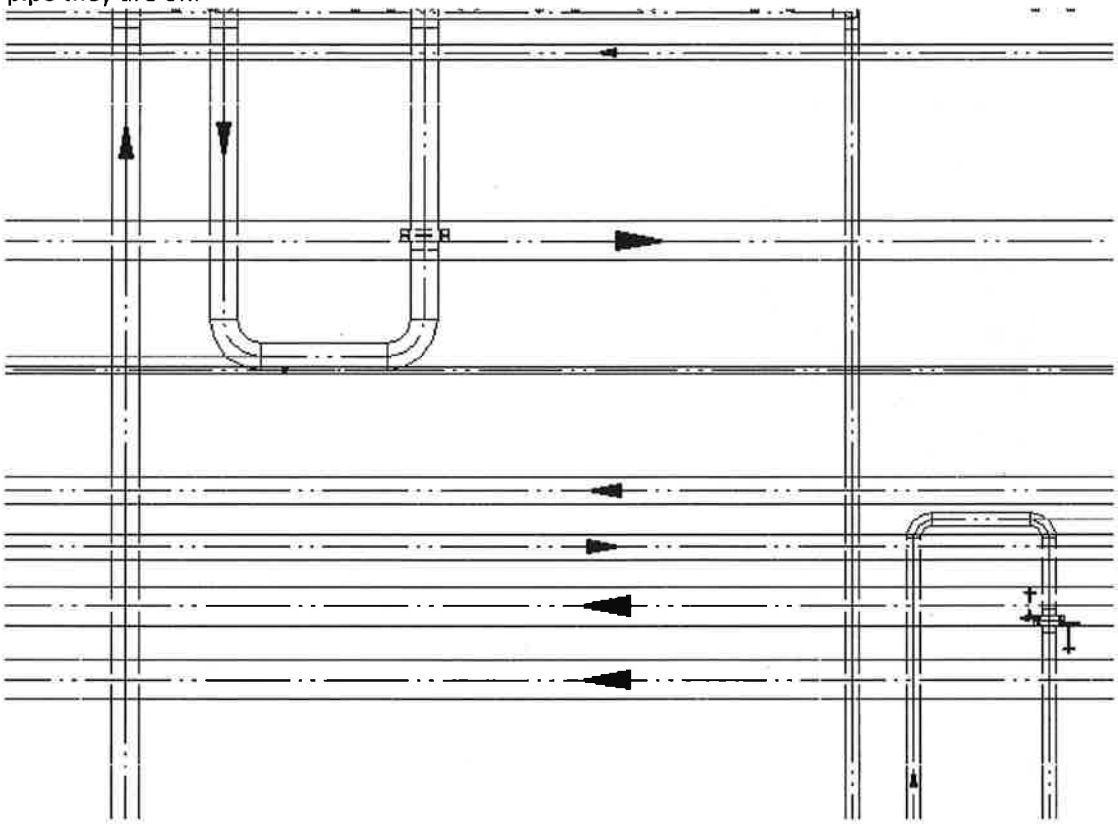


1. **Tools > Define View Style**
2. Edit the **Piping Plan Style 2** view style
3. Add a row at the end that contains the following:
   Filter Name: **Catalog Filters\Default Filters\SP3D Object Filters\Object Types\Piping\Piping Parts\Pipes**
   Primary Orientation: **Parallel**
   Label Rule: **Piping Plan_FlowArrow_Longest Segment**

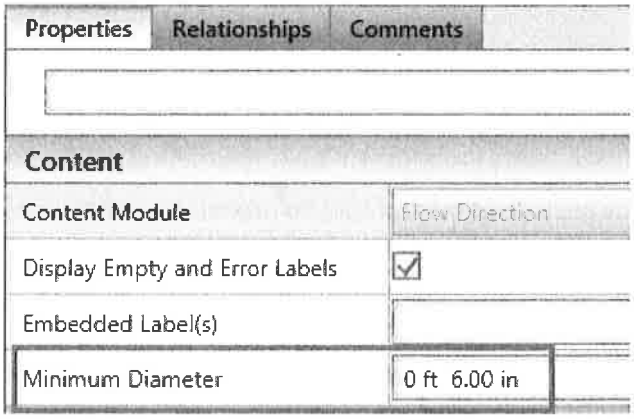
Filter Name	Primary Orientation	Graphic Rule	Label Rule
Object Types\Piping\Piping Parts\Pipes	Parallel	Piping_Piping	Piping Plan_FlowArrow_Longest Segment

4. Save the view style and close the define view style dialog.
5. Expand **HxGNLive2014\PT1502\Lab 1\Piping Plan**
6. Copy **U13-1** and paste it in the same component
7. Rename the drawing to **U13-1 FA**
8. Edit the drawing and update the view.

9. Zoom in to the middle of the view to see that the flow arrows are proportional to the size of the pipe they are on.

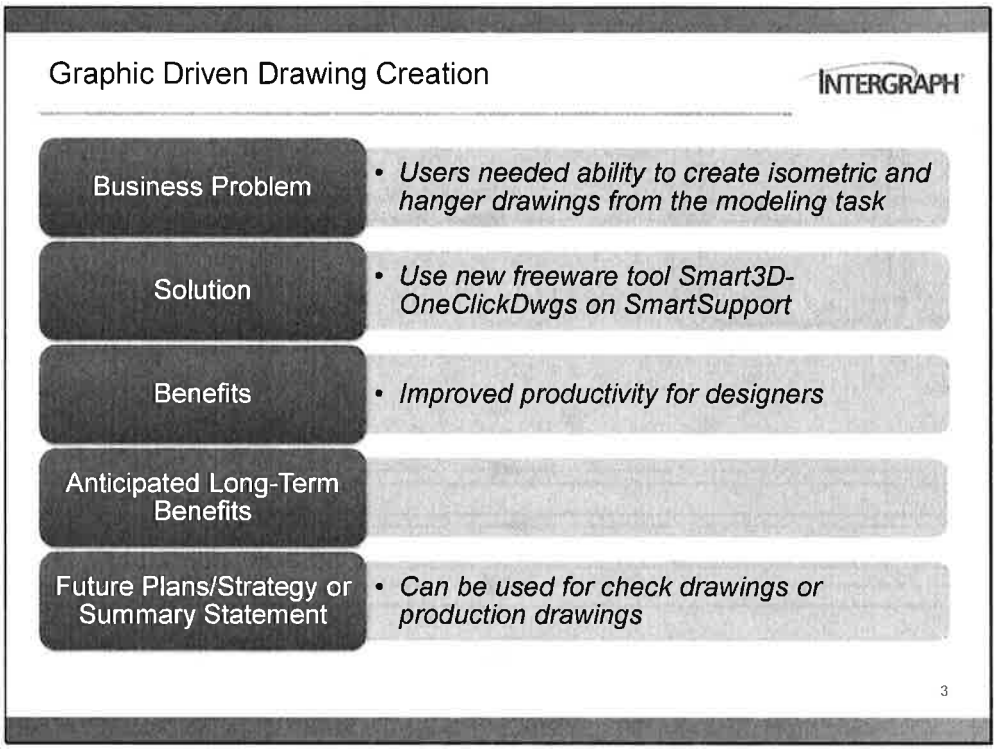


10. Close SmartSketch Drawing Editor
11. Edit the view style and edit the **Piping Plan_Flow Arrow_Longest Segment** label rule
12. Change the minimum diameter to **6 in**



13. Save and close view style editor and edit and update the view in the drawing.
14. Notice that flow arrows are no longer placed on the 4 in and smaller lines.

Graphic Driven Drawing Creation



This new productivity tool available on Smart Support helps users to update drawings for piping isometrics and hangers from the modeling environment. Administrators can set up default and optional drawings for a given object type based on the hierarchy in the model. Users can select objects such as pipeline, WBS item, assembly, or support from the work space explorer and view and update drawings. This hands-on workshop will lead participants through the steps to set up and use the tool.

Installation

Installation

The installation steps for users have already been performed for you. For use at your office, you will need to download the tool from Intergraph SmartSupport website and follow instructions.

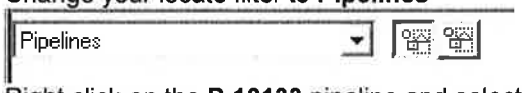
Initial Configuration

1. Create a folder named 'OneClickDwgConfigSetup' in your SharedContent folder
2. Create a folder named 'SP3DTrain' inside this folder
3. Copy the C:\ Smart3D-OneClickDwgs\OneClickDBQDwgConfig.xml to this folder

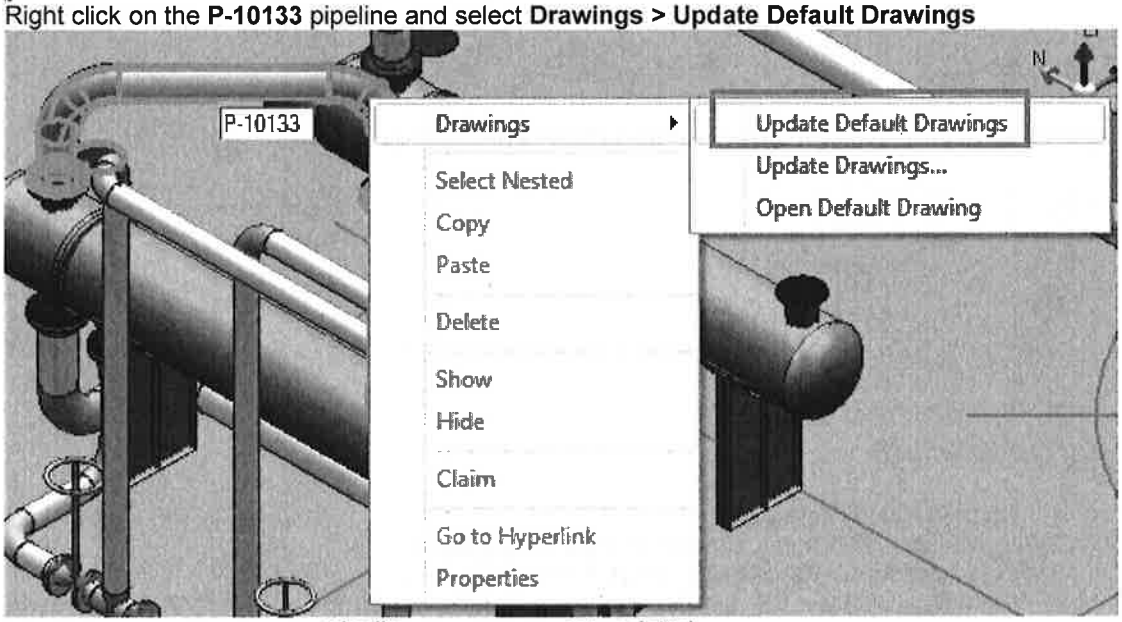
Usage

Piping Isometrics

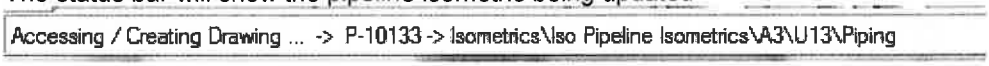
1. Start Smart 3D using the WS2154.ses file on your desktop
2. Change your locate filter to **Pipelines**



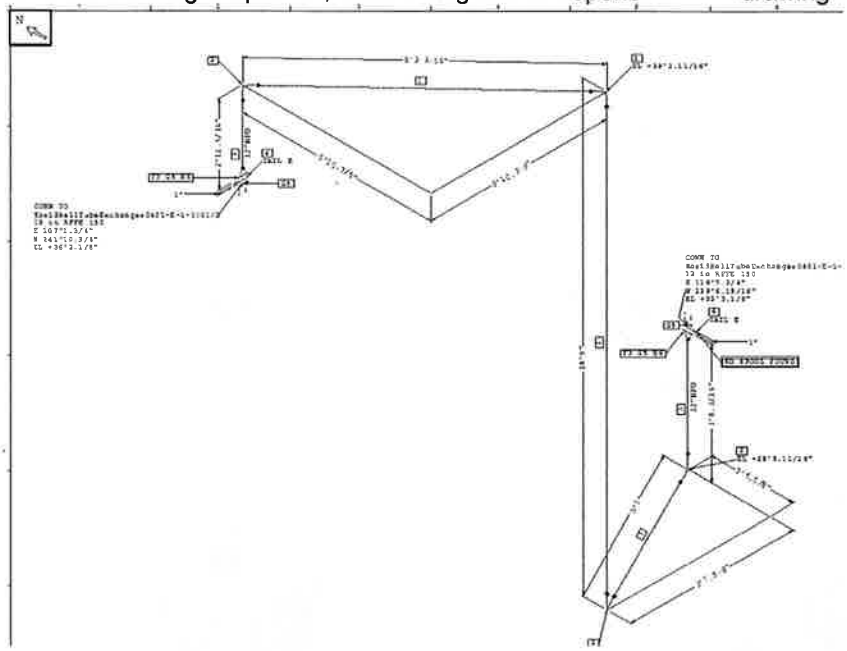
3. Right click on the **P-10133** pipeline and select **Drawings > Update Default Drawings**



4. The status bar will show the pipeline isometric being updated

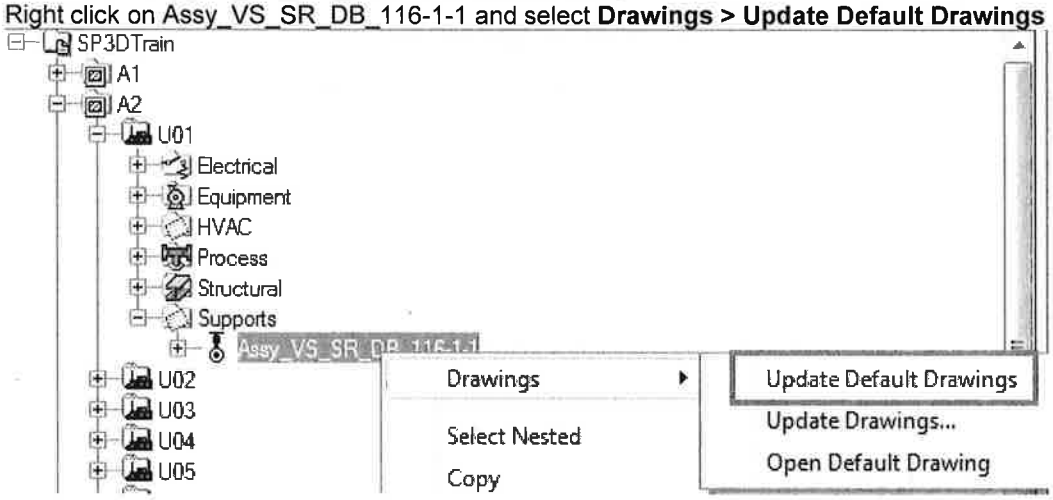


5. After the drawing is updated, the drawing console opens and the drawing is displayed.

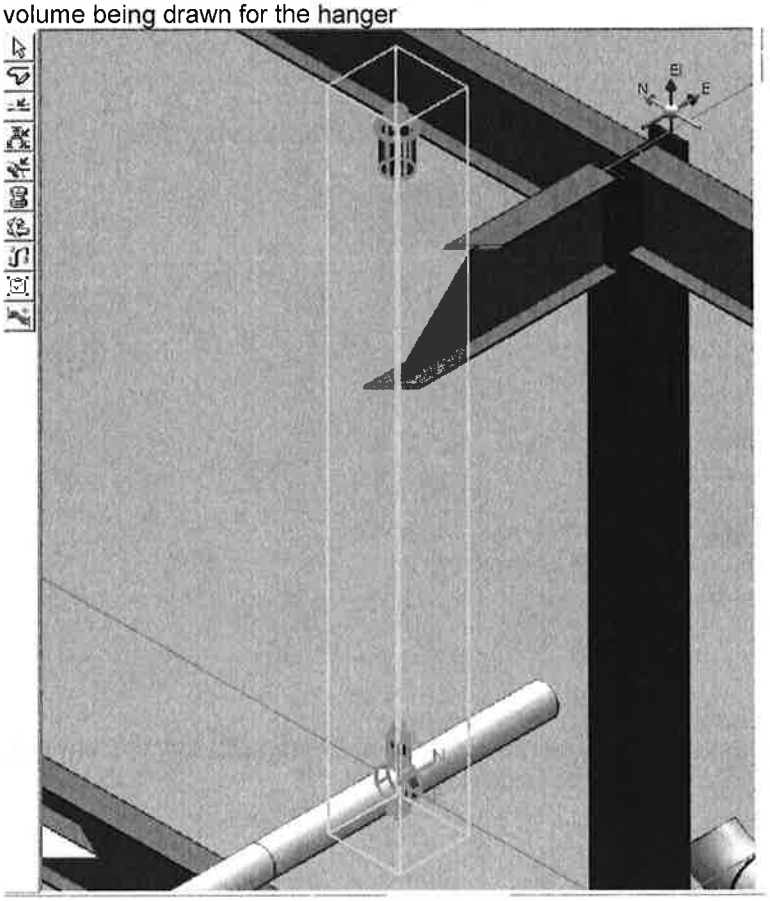


Hanger Drawings

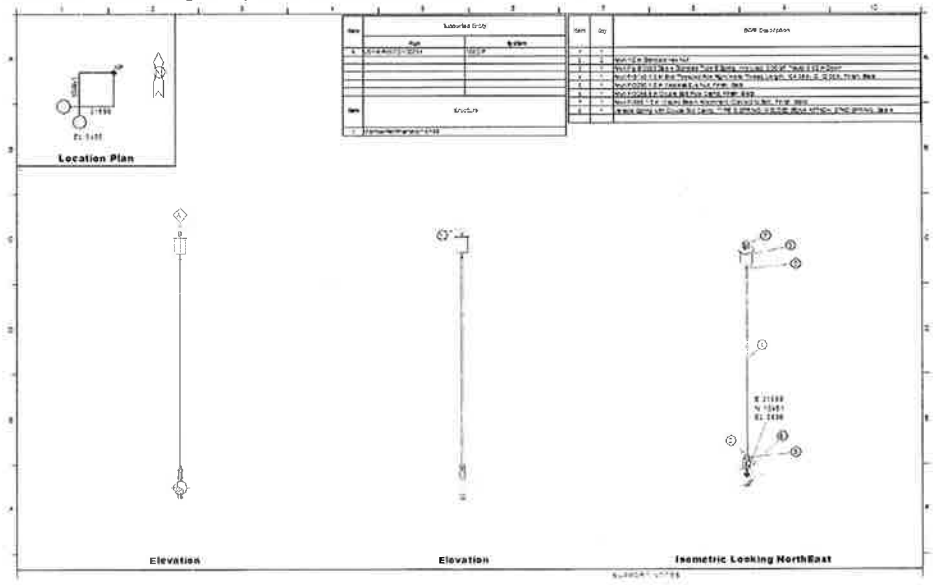
1. Change locate filter to **All**
2. In Workspace Explorer, expand **A2 > U01 > Supports**
3. Select the **Assy_VS_SR_DB_116-1-1** and fit the view.
4. Right click on Assy_VS_SR_DB_116-1-1 and select **Drawings > Update Default Drawings**



5. The status bar will show the drawing being updated. The graphic view shows the transient volume being drawn for the hanger



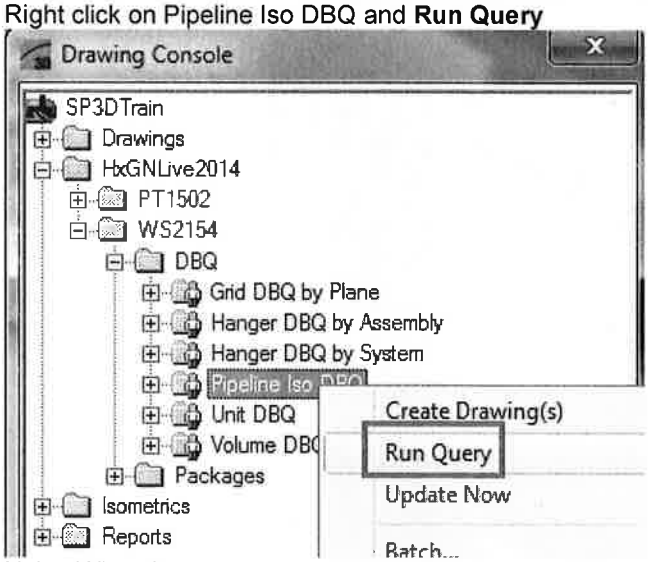
6. After the drawing is updated, the drawing console opens and the drawing is displayed



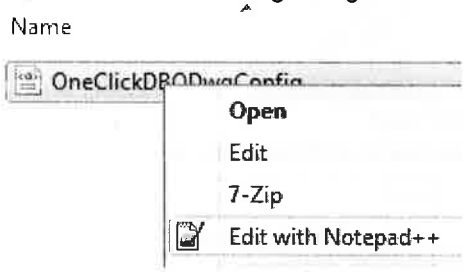
Customization

Drawing Hierarchy

1. In Drawing Console, expand **HxGNLive2014\WS2154\DBQ\Pipeline Iso DBQ**
2. Right click on Pipeline Iso DBQ and **Run Query**



3. Using Windows Explorer, navigate to **C:\Program Files (x86)\Smart3D\3DRefData\SharedContent\OneClickDwgConfigSetup\SP3DTrain** folder
4. Edit the OneClickDBQDwgConfig.xml file using Notepad++



5. Select row 13, copy and paste it below

```
13    <LimitToDwgHierarchy        NodePathsLike="\Drawings\*"/>
```

6. Edit row 14 and change Drawings to **HxGNLive2014**

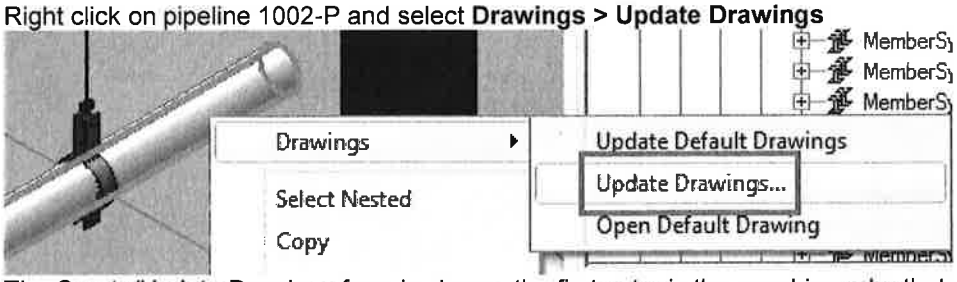
```
12    <LimitToDwgHierarchy        NodePathsLike="\Isometrics\*"/>
13    <LimitToDwgHierarchy        NodePathsLike="\Drawings\*"/>
14    <LimitToDwgHierarchy        NodePathsLike="\HxGNLive2014\*"/>
```

7. Edit row 19 and add the three entries **HxGNLive2014;WS2154;DBQ** to **IgnoreDwgHierarchyNodes**

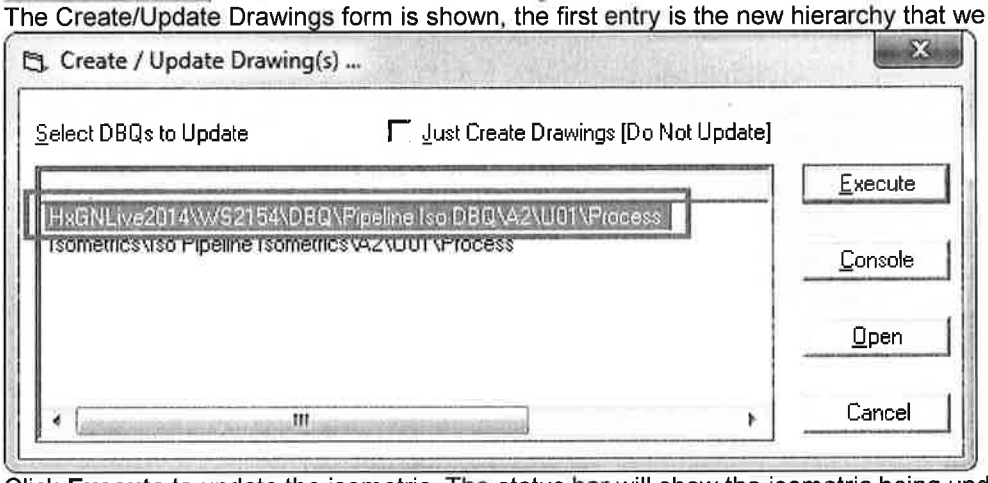
```
18
19    <IgnoreDwgHierarchyNodes    Names="Isometrics;Drawings;HxGNLive2014;WS2154;DBQ"/>
20
```

8. Save the file and leave Notepad++ open.
9. In Smart 3D, change locate filter to **Pipelines**

10. Right click on pipeline 1002-P and select **Drawings > Update Drawings**



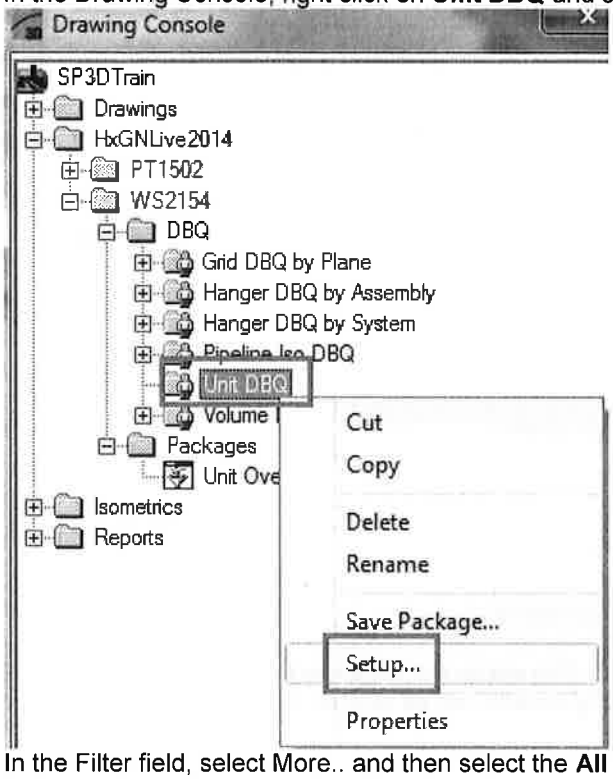
11. The Create/Update Drawings form is shown, the first entry is the new hierarchy that we added.



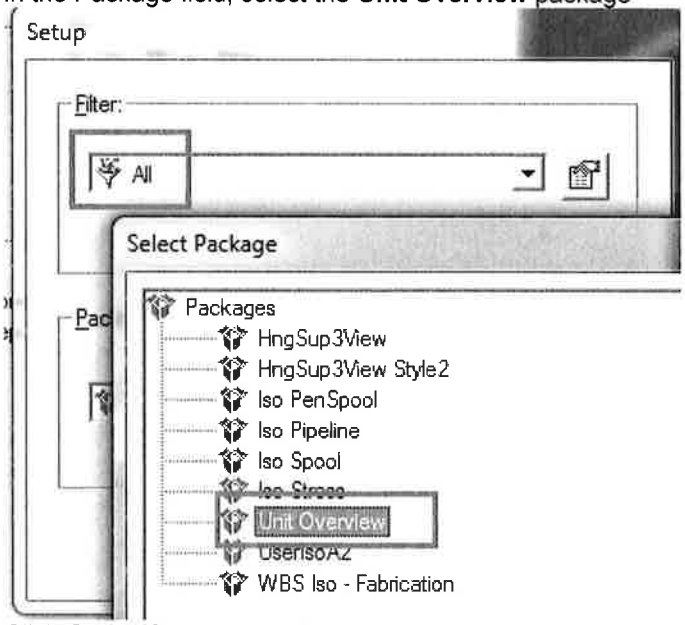
12. Click **Execute** to update the isometric. The status bar will show the isometric being updated. Once update is completed, the drawing console will be opened to show the new drawing created and the drawing will opened.

Object and Drawing Type

1. In the Drawing Console, right click on **Unit DBQ** and select **Setup…**



2. In the Filter field, select More.. and then select the **All** filter
3. In the Package field, select the **Unit Overview** package



4. Click **OK** on Select Package
5. Click **OK** on Setup
6. Right click on **Unit DBQ** and **Run Query**

7. In Notepad++, copy row 5 (entire row) and paste it at row 11

```
4
5     <DrawingPackageMap ObjectsImplementingInterface="IJPipelineSystem"
6     <DrawingPackageMap ObjectsImplementingInterface="IJDPenSpool"
```

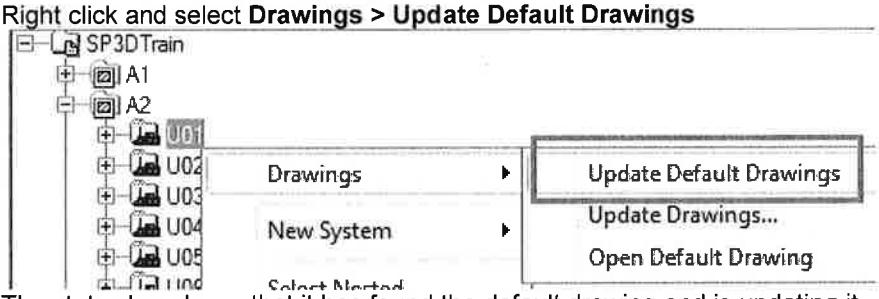
8. Edit row 11 to change as follows
   ObjectsImplementingInterface to **IJUnitSystem**
   DefaultPackage to **Unit Overview**
   Packages to **Unit Overview**

```
10    <DrawingPackageMap ObjectsImplementingInterface="IJAssembly"      DefaultPackage="Iso Assembly"      Packages="Iso Assembly"
11    <DrawingPackageMap ObjectsImplementingInterface="IJUnitSystem"    DefaultPackage="Unit Overview"     Packages="Unit Overview"/>
12
```

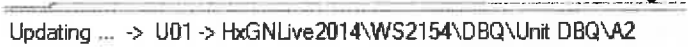
9. Edit row to include the Unit Overview package in the list of packages to open by default

```
21
22    <Action OpenDrawingAfterUpdate="true" Packages="Unit Overview;Iso Pipeline
23
```

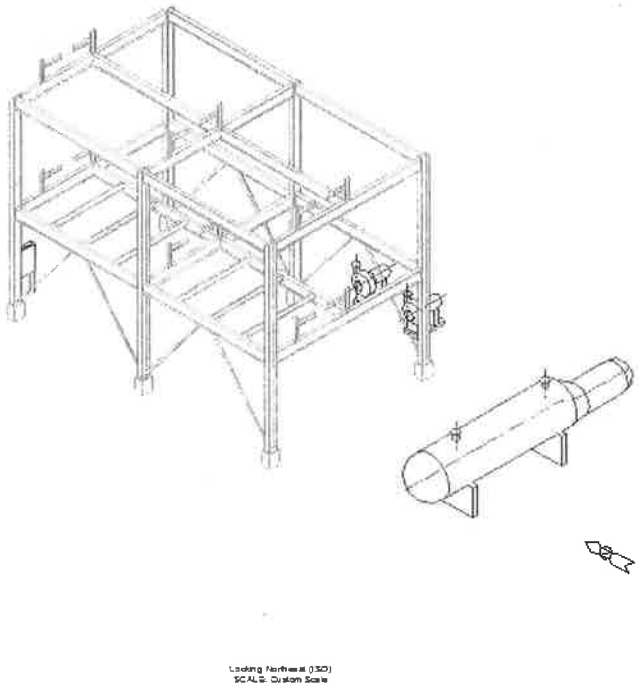
10. Save the file
11. Change the locate filter to **All**
12. In the Workspace Explorer, collapse the hierarchy and select **A2 > U01**
13. Right click and select **Drawings > Update Default Drawings**



14. The status bar shows that it has found the default drawing and is updating it

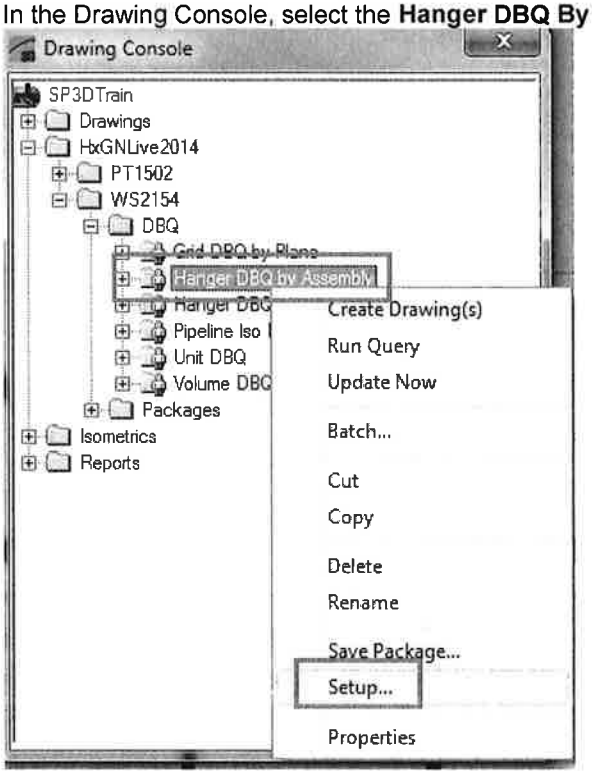


15. The drawing opens to show equipment and structure objects in Unit U01

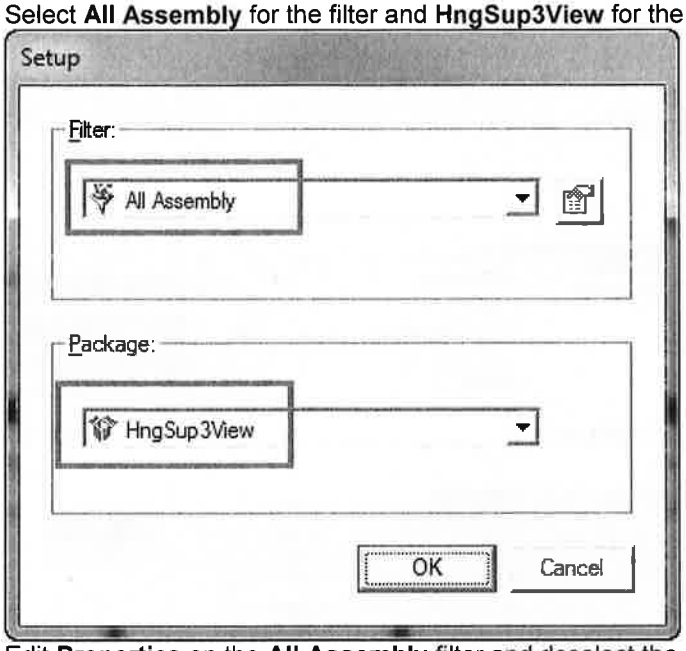


Use Assembly Hierarchy for Supports

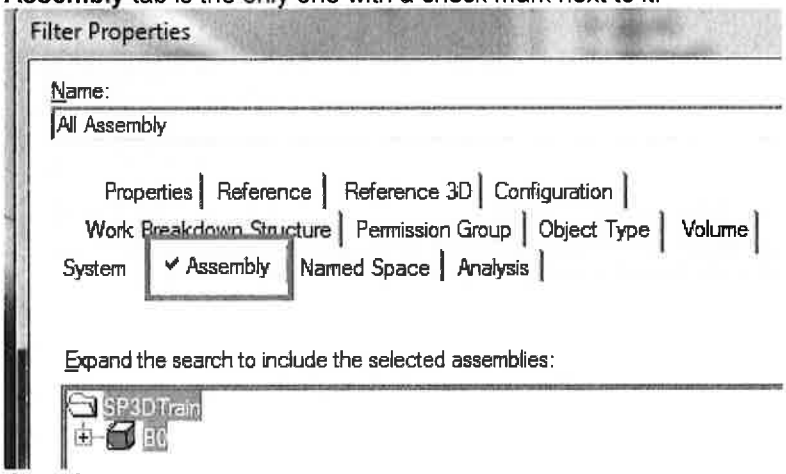
1. In the Drawing Console, select the **Hanger DBQ By Assembly** and **Setup...**



2. Select **All Assembly** for the filter and **HngSup3View** for the package



3. Edit **Properties** on the **All Assembly** filter and deselect the root node from **System** tab so the **Assembly** tab is the only one with a check mark next to it.

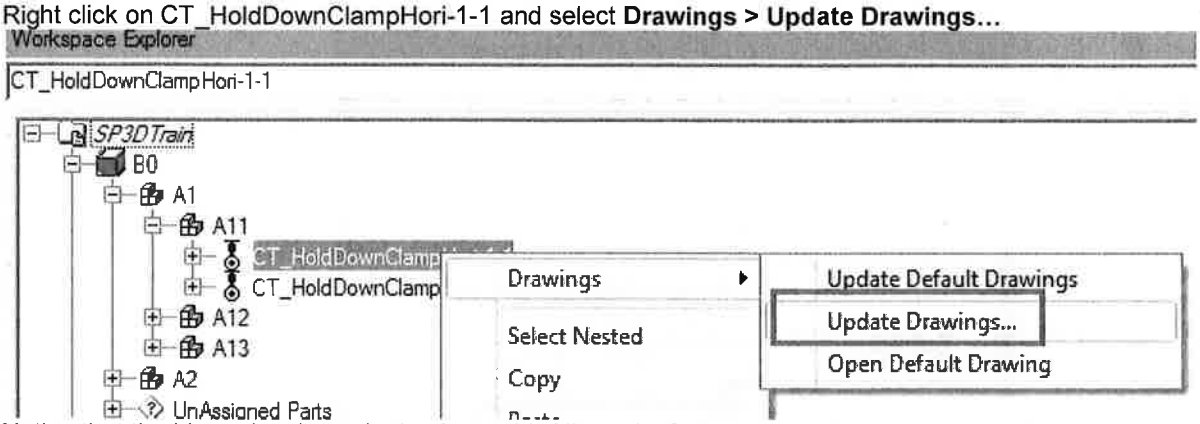


4. Click OK
5. **Run Query**
6. Uncomment row 25 to enable assembly hierarchy traversal for supports

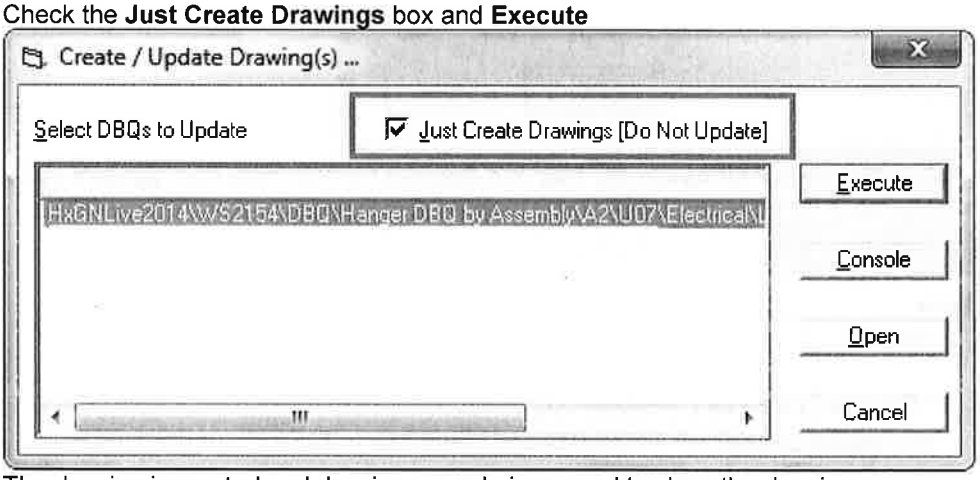
```
<!--Uncomment below line if you want to use AssemblyHierarchy based DBQ Node Hierarchy for Supports -->
<UseAssemblyHierarchy ObjectsImplementingInterface="IJHgrSupport"/>
```

7. Switch to **Planning** task and expand **B0 – A1 – A11**
8. Select **CT_HoldDownClampHori-1-1** and fit the view

9. Right click on CT_HoldDownClampHori-1-1 and select **Drawings > Update Drawings...**

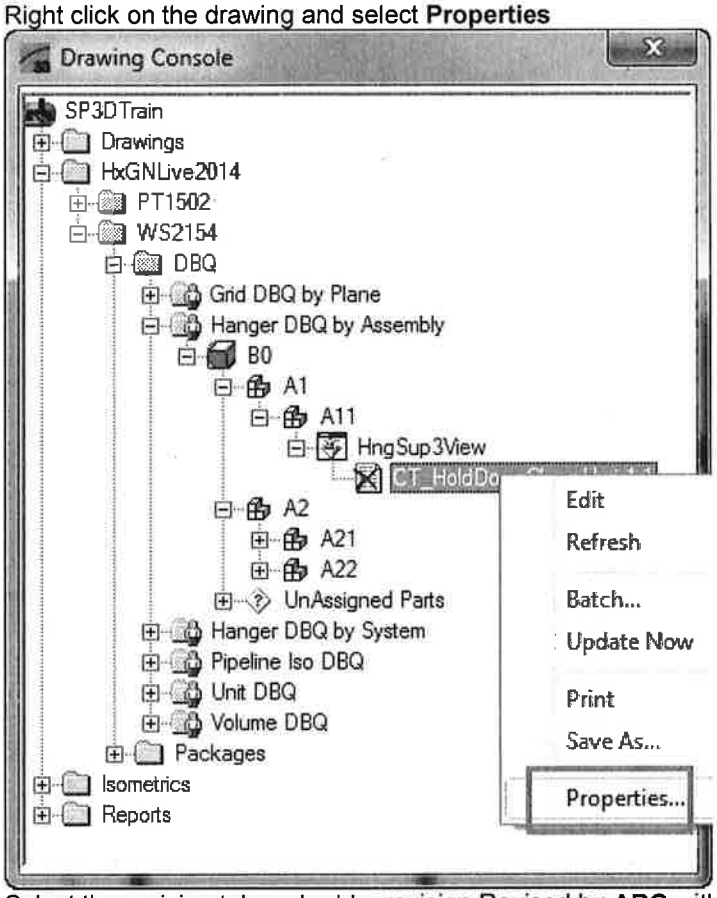


10. Notice that the hierarchy shown in the Assembly Hierarchy for the supports and not the system hierarchy
11. Check the **Just Create Drawings** box and **Execute**

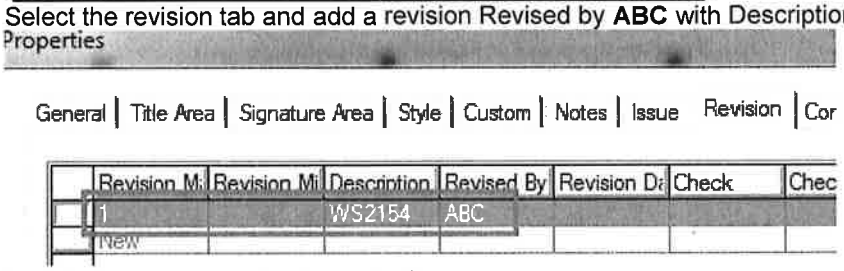


12. The drawing is created and drawing console is opened to show the drawing

13. Right click on the drawing and select **Properties**



14. Select the revision tab and add a revision Revised by **ABC** with Description **WS2154**



15. Update the drawing using **Update Now**.
16. When the drawing completes, edit the drawing and notice that the revision is shown.

REVISION RECORD					
REV. #	DESCRIPTION	BY	CHK	APP	DATE
1	WS2154	ABC			