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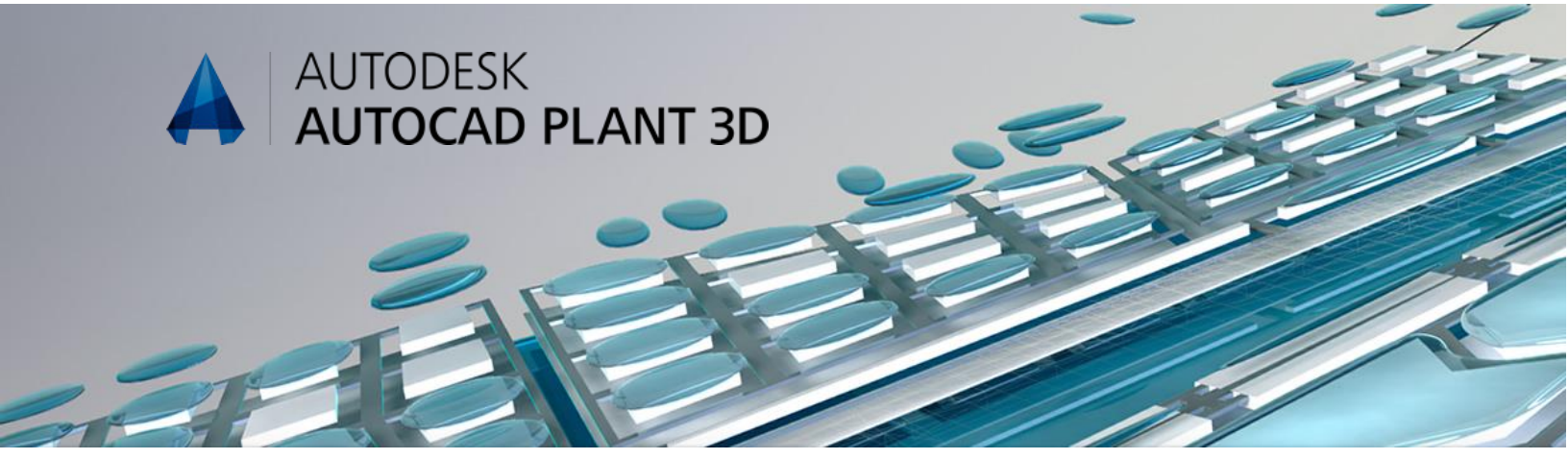


Using Spool Numbers from your 3D Model

This document outlines how to use the feature introduced in AutoCAD Plant 3D 2013 that allows you to assign spool numbers in your 3D model and have them annotate on your generated isometric drawings.

Setting the Project Settings

Isometric DWG Settings

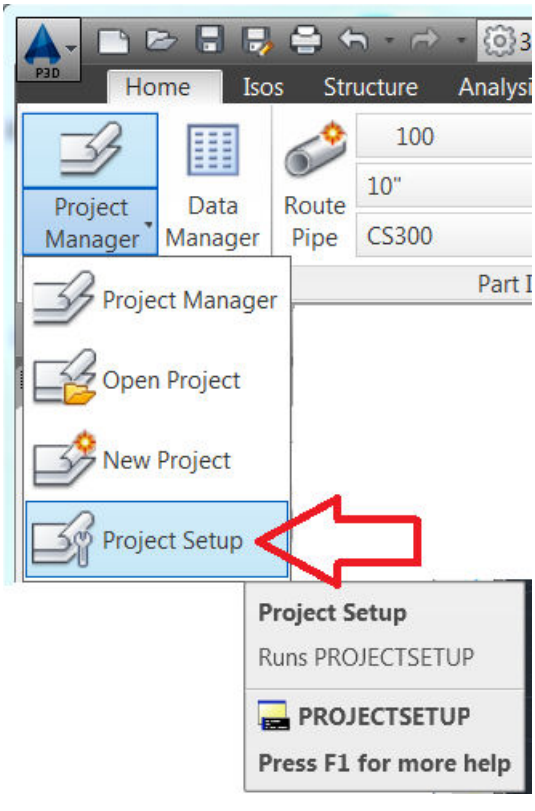
The settings which allow the automatic annotation of piping spools are stored in the isometric style. The steps to modify these settings are outlined below:

1. Open the Project Setup dialog
2. Under *Isometric DWG Settings>Iso Style Setup*, select the iso style which will display the spool annotations
3. Set the *Spool Sizing* to **Use spool number from model**
4. Under *Isometric DWG Settings>Annotations*, Turn on spool annotations in the drawing
5. Set the spool annotations *Numbering* to **Use spool number from model**

These steps are outlined in more detail in the following sections.

1. Open the Project Setup dialog

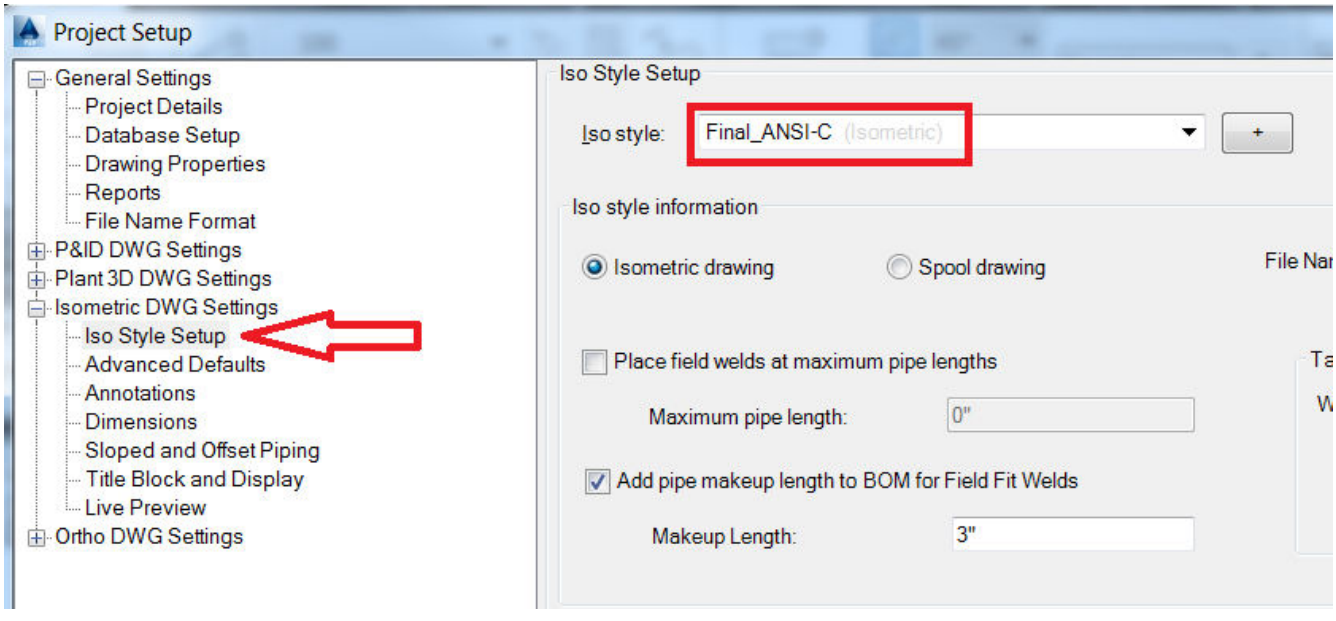
From the Home ribbon tab, select *Project>Project Setup*:



Entering Project Setup

2. Select the Iso Style

In the Project Setup dialog, expand the *Isometric DWG Settings* element in the configuration tree and *select Iso Style Setup*:

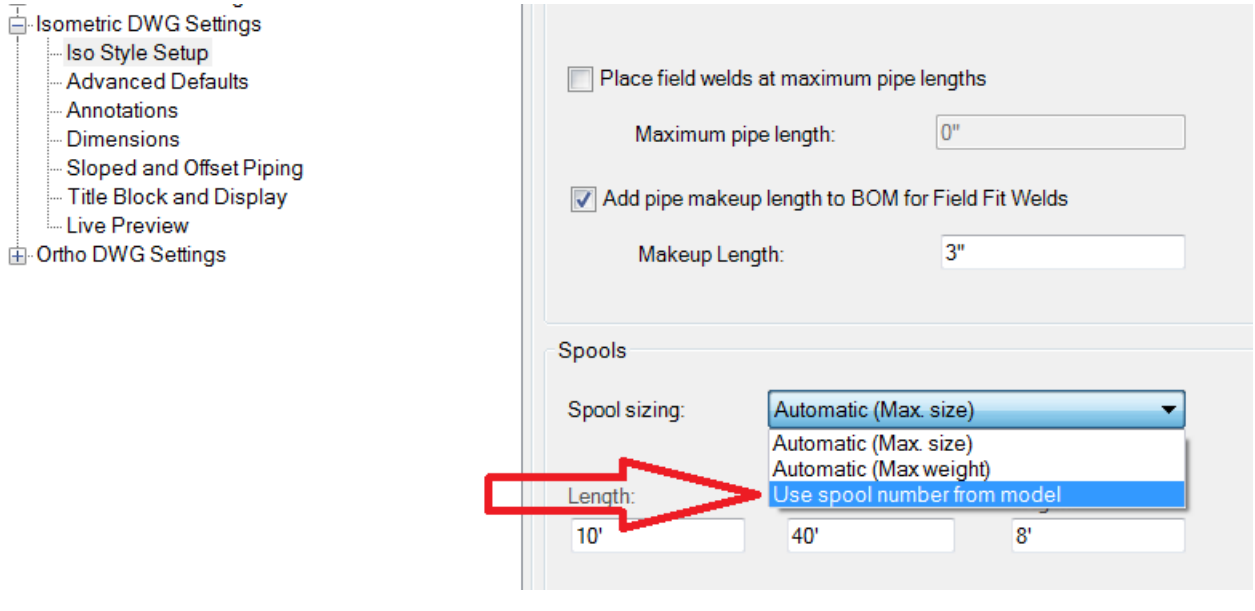


Iso Style Setup

Select the *Iso Style* as shown above (we've selected **Final_ANSI-C** for this example).

3. Set Spool Sizing

Within the *Spools* area of the *Iso Style Setup*, set the *Spool sizing* to **Use spool number from model**. Select the *Apply* button at the bottom of the dialog to save this change to the iso style.

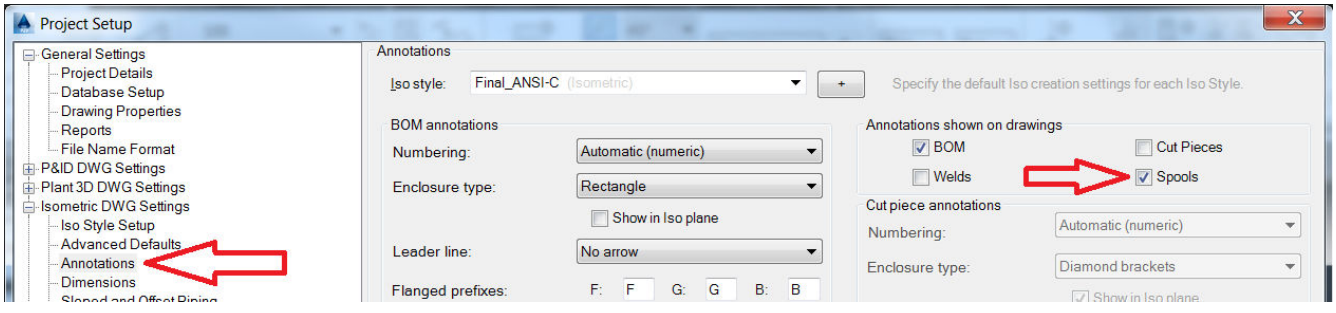


Spool Sizing

<u>Important:</u> If you do not set the Spool Sizing *to* ***Use spool number from model*** *as shown above none of the other settings shown below will be in activated.*

4. Turn on Spool Annotations

Next, select *Annotations* under the *Isometric DWG Settings* of the configuration tree. In the upper right corner in the *Annotations shown in drawings* area, enable spool annotations by checking the box labeled *Spools* as shown below:



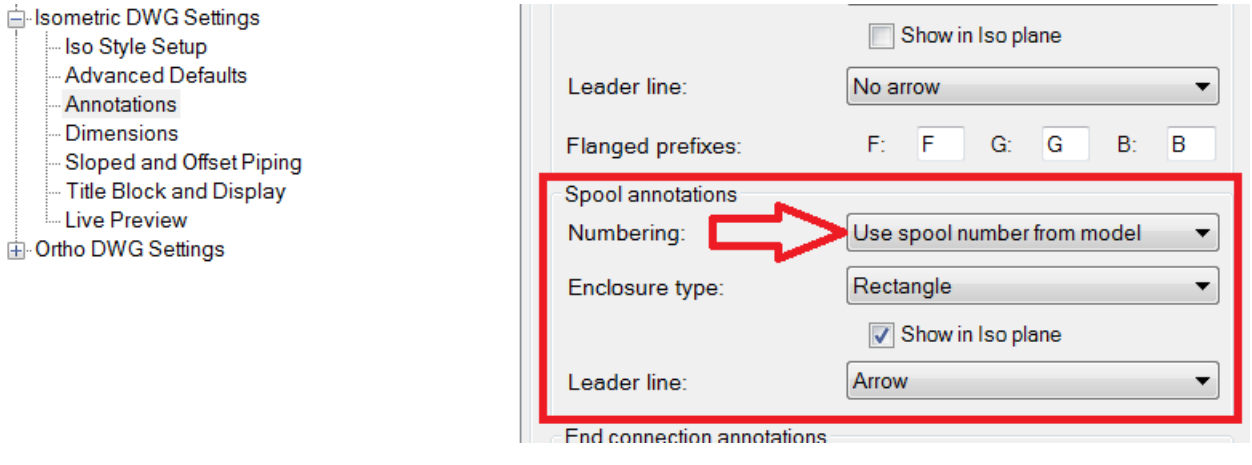
Spool Annotation

5. Set Spool Numbering from Model

In the same *Annotations* section of the *Isometric DWG Settings*, now that you've enabled the spool annotations you will be able to set the following for *Spool annotatons*:

- Spool Numbering
- Enclosure type
- Whether the annotation is shown in the isometric plane or not
- Leader line

The most important setting here, of course is to set the *Numbering* to **Use spool number from model**. The other settings (Enclosure, Iso plane and Leader) can be set to your company's preferences:



Spool Numbering from Model

Select the *Apply* button and then *OK* to close the Project Setup dialog.

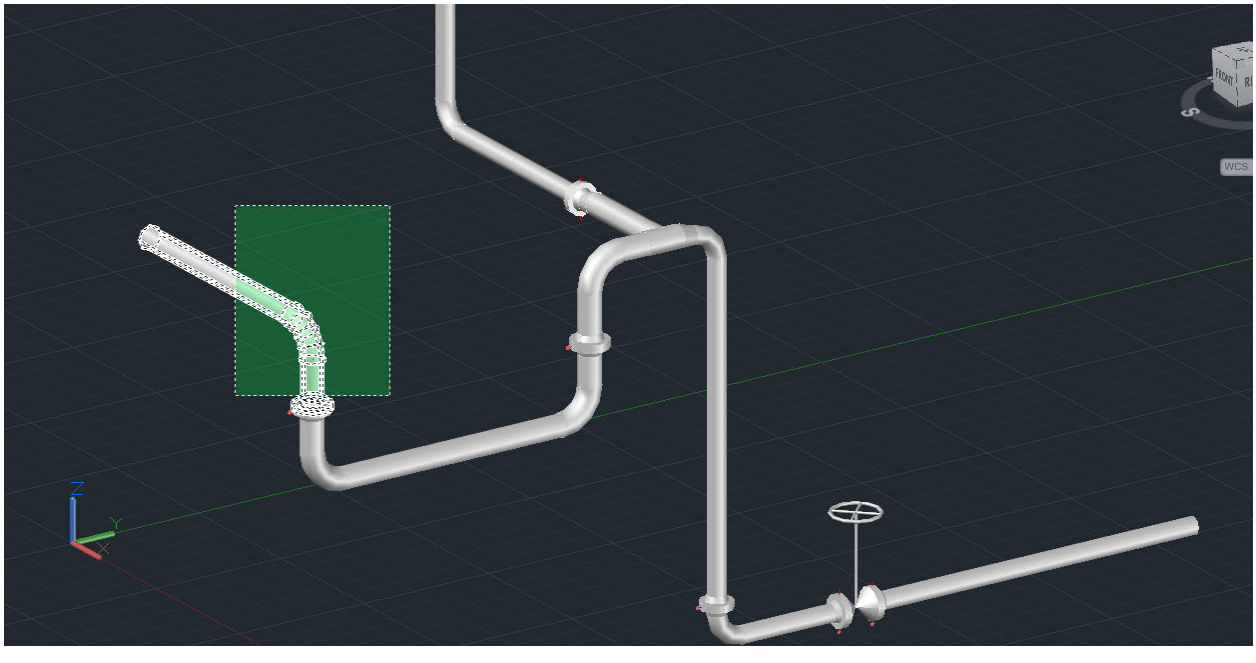
Adding Spool Numbers to your Model

Now that your project contains an iso style (Final_ANSI-C) that will annotate the spool numbers per your model, you need to assign the spool number to the properties of the piping components in your model.

Select Piping Components

Assuming that you have already determined where the field connections will be located in your modeled piping system, you can begin assigning the appropriate spool numbers to each line number. It is recommended that, for ease of selection, you isolate the systems by line number/layer before selecting the different components.

In the figure below, we've selected the components that will be part of spool 001 using a crossing window and selecting two sections of pipe, an elbow and a weldneck flange:

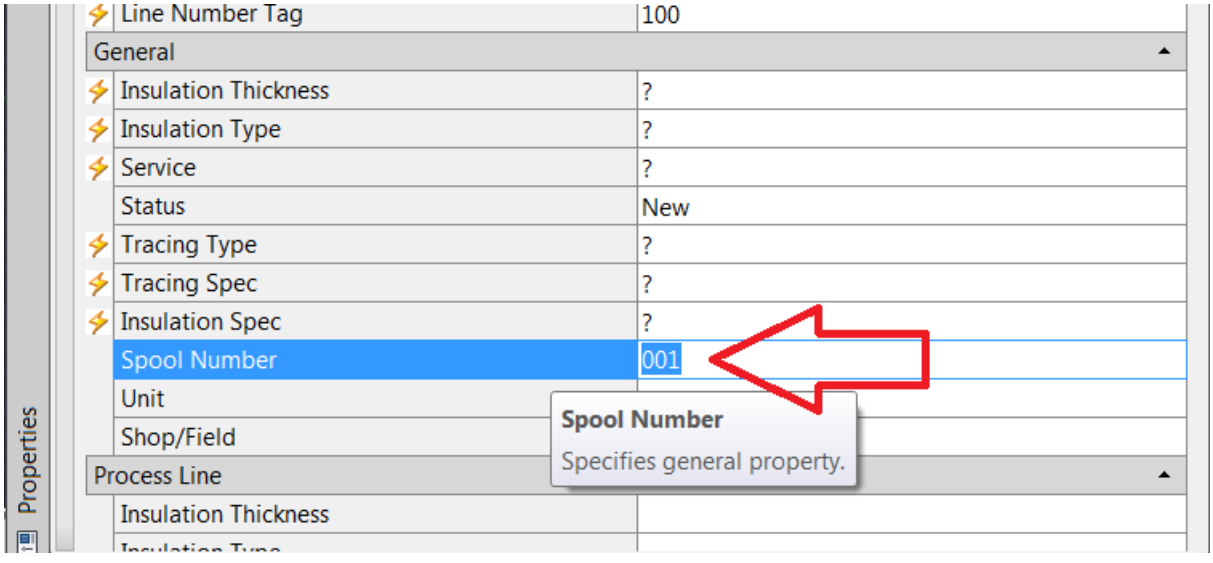


Selecting Piping in the Model for the Spool

Set Spool Number

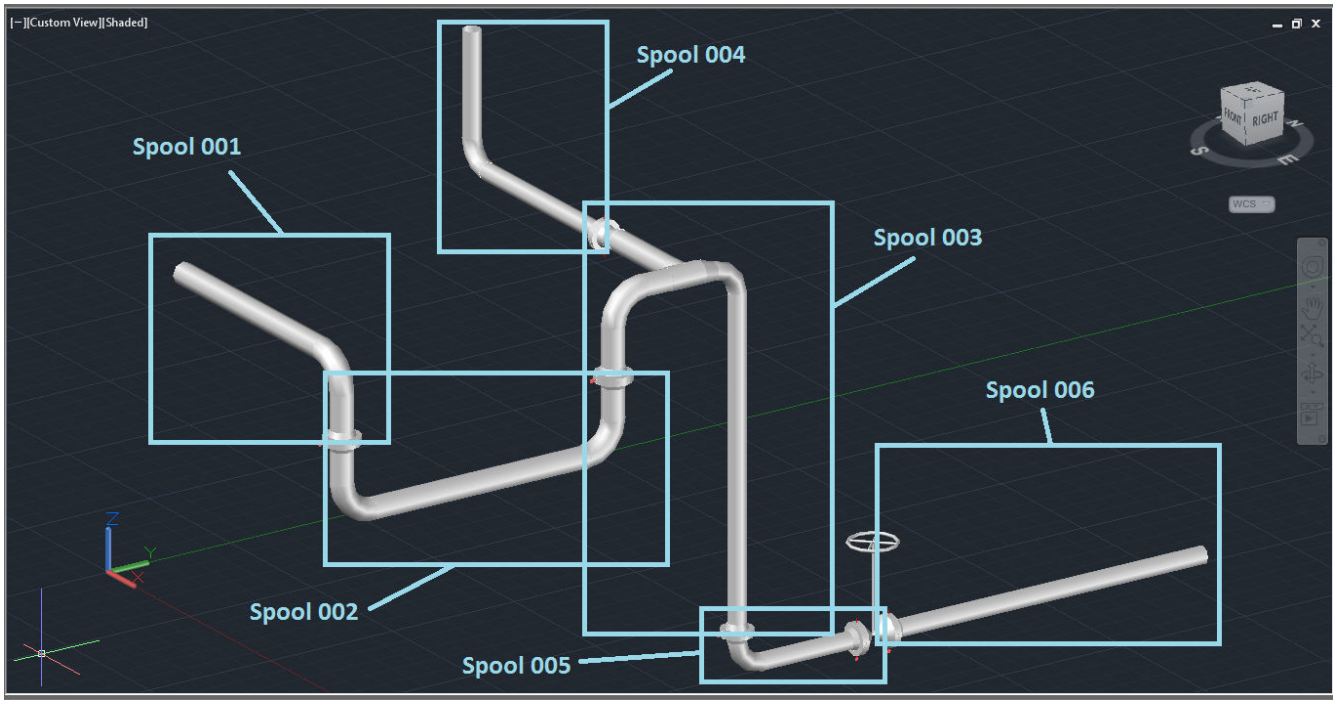
Next, right-click and select *Properties* from the context menu to open that window. Note: You can leave the *Properties* window open while selecting the different spool components.

In the *General* section of the component properties the *Spool Number* is listed (see figure below). Set it to the desired spool number as you'd like it to appear on the isometric:



Setting the Spool Number

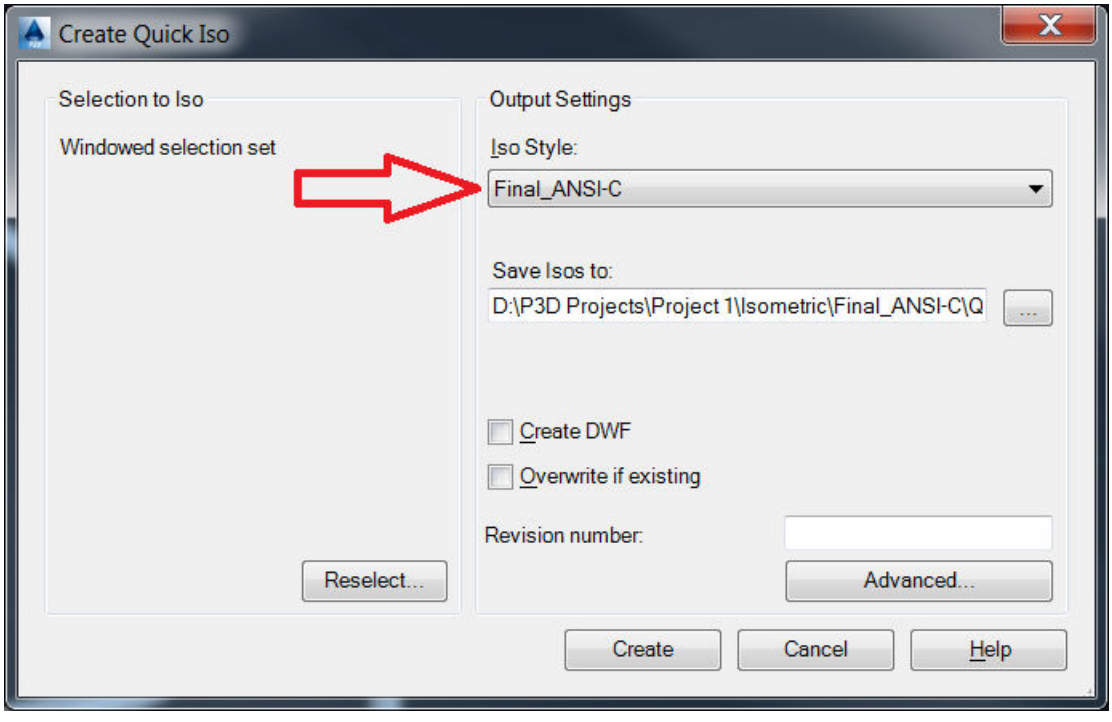
Repeat the steps above for each spool in the model:



Example Spool Numbers

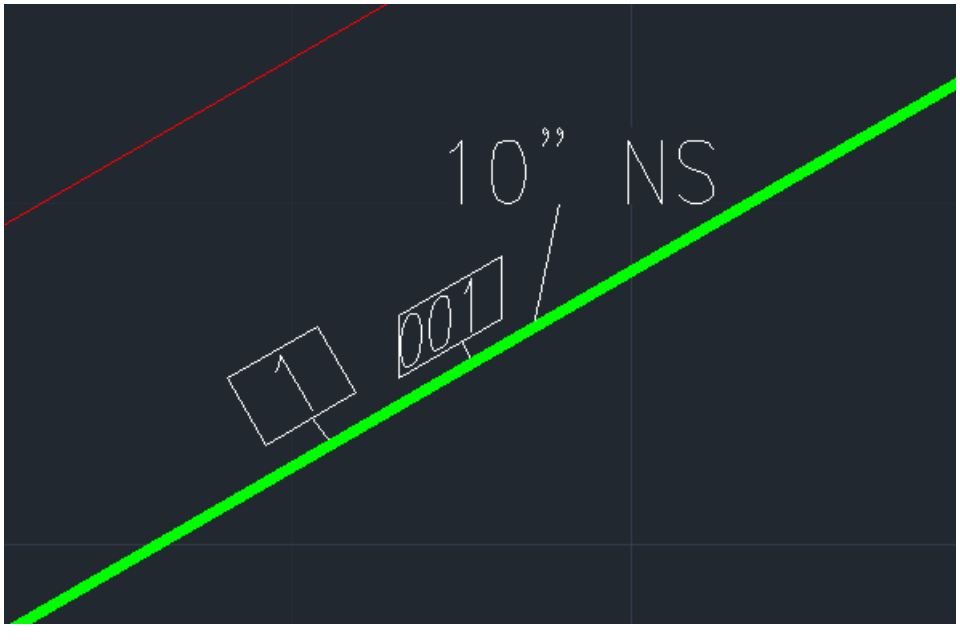
Generate Isometric Using Modified Iso Style

The final step is to generate either a Quick Iso or Production Iso using the modified iso style:



Creating Isometric Drawing

Your generated isometric drawing should include the spool annotations per your configuration.



Finished Isometric Drawing

Document Revisons

V1.0 Final Draft (5/15/14) Joel Harris

V2.0 Technical Corrections (5/16/14) Joel Harris