



AutoCAD Plant 3D (2012-2016)- Line Number in Isometric Title Block

When you generate an Isometric drawing the line number annotation that is displayed on the drawing does not match the line number that is used in the drawing title block.



However, you require the same value to be displayed in both locations. So, how can you do this?

Line Number Annotation vs. Isometric Line Number

Within the Plant 3D data model, the P3dLineGroup - Pipe association allows pieces of pipe of varying sizes and specs to be used on the same process line i.e. share the same line number. It is this flexibility that causes the issue on the isometric drawing.

The line number annotations that appear on the iso drawing are created using the attributes of the individual cut pieces of Pipe and thus display the actual size and spec of each piece of pipe. The attributes that are available to be inserted into the title block of the drawing are attributes of the P3dLineGroup or process line and are thus contain the same value for all pieces of pipe.

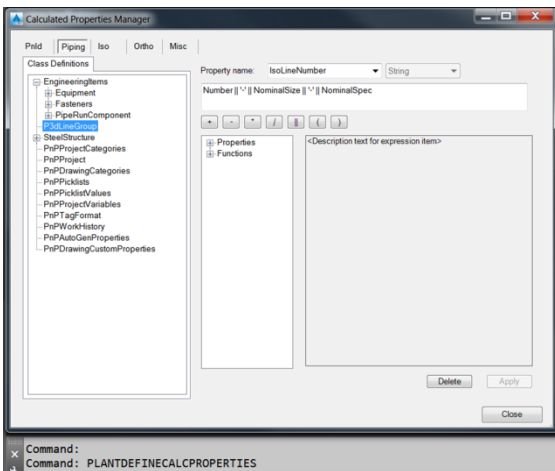
New P3dLineGroup Property

The simplest way that we can display a line number, size and a spec in the title block is by creating a new P3dLineGroup attribute that contains the required values. In doing so, we are implying and assuming that all pieces of pipe on a process line are of the same size and spec. The P3dLineGroup already has **Nominal Size** and **Nominal Spec** properties in which we can store the assumed values for size and spec.

The default line number annotation scheme for isometric drawings is of the form <Line Number Tag>-<Size>-<Spec>, where the <Line Number Tag> is the value generated by the P3dLineGroup tag format when we route a new line number in Plant 3D; the default tag format consists simply of the **P3dLineGroup.Number** property.

If we want to use the same <Line Number Tag>-<Size>-<Spec> format for the line number in the title block we need to create a new P3dLineGroup property that contains values of the Number, Nominal Size and Nominal Spec properties.

To do this, we enter the command **PLANTDEFINCECALCPROPERTIES** at the AutoCAD command line in a project drawing and create a new property. In the example below, I have created the property IsoLineNumber:

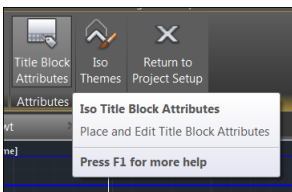


The new IsoLineNumber property will be calculated automatically whenever we enter values for the P3dLineGroup **Number**, **Nominal Size** and **Nominal Spec** properties.

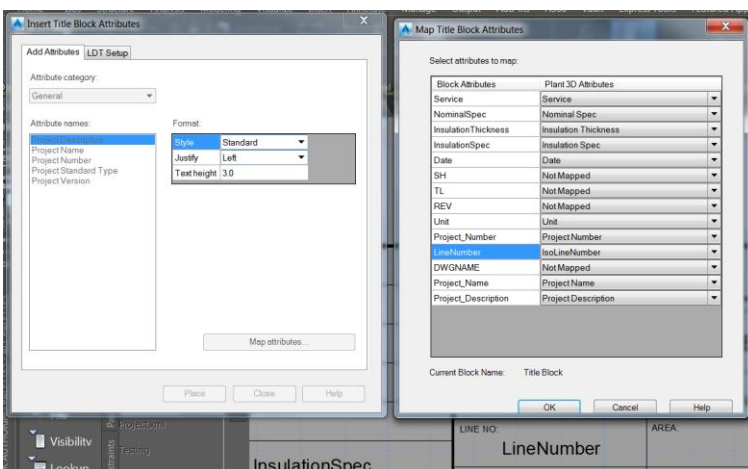
Modify Isometric Title Block Attributes

To insert our IsoLineNumber property into an iso title block, we must update the iso style through Project Setup. We go to **Project Setup>Isometric DWG Settings>Title Block and Display**, select the style we wish to update and click **Setup Title Block...**

We then click the **Title Block Attributes** button on the Title Block Setup ribbon..



We can now map our IsoLineNumber attribute to the block attribute LineNumber...





Data Entry and Iso Creation

Values for Nominal Spec and Nominal Size are most easily entered through the Data Manager window where the calculated value of IsoLineNumber can also be seen.

Number	Nominal Spec	Nominal Size	Service	IsoLineNumber	Description
123456	DH Stainless	600		123456-600-DH Stainless	

When the isometric drawing is generated, we now see the values we require...

