# Drawing Creation Tutorial

## Drawings by Query


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SESSION 11

# Drawings by Query

### Objective

By the end of this session, you will be able to:

- Specify the "where" filter to create drawing by query for hanger supports
- Edit the Coordinate System property of a drawing to create location plans

### Overview

A general arrangement drawing allows you to control the look and feel of each drawing. For instance, you can specify the number of views in a sheet, as well as other properties of the views. Composed drawings are used to create general arrangement drawings. Composed drawings require you to place volumes or snapshot views for each portion of the model, and then associate views to volumes to finalize the drawings.

Smart 3D also allows you to create orthographic drawings using a filter-based query. This can be useful when many objects in the model, such as hangers or equipment, need to be documented with the same view layout, properties, and style. With drawings by query, there is no need to place volumes in the model. Volumes are generated based on the object that is the subject of the drawing, as well as navigation rules, which further control the size of the volume and the contents of the view.

In this session, we cover the procedure for how to create a drawing by query. We will also edit properties at a folder level and see that it propagates down to each child drawing.

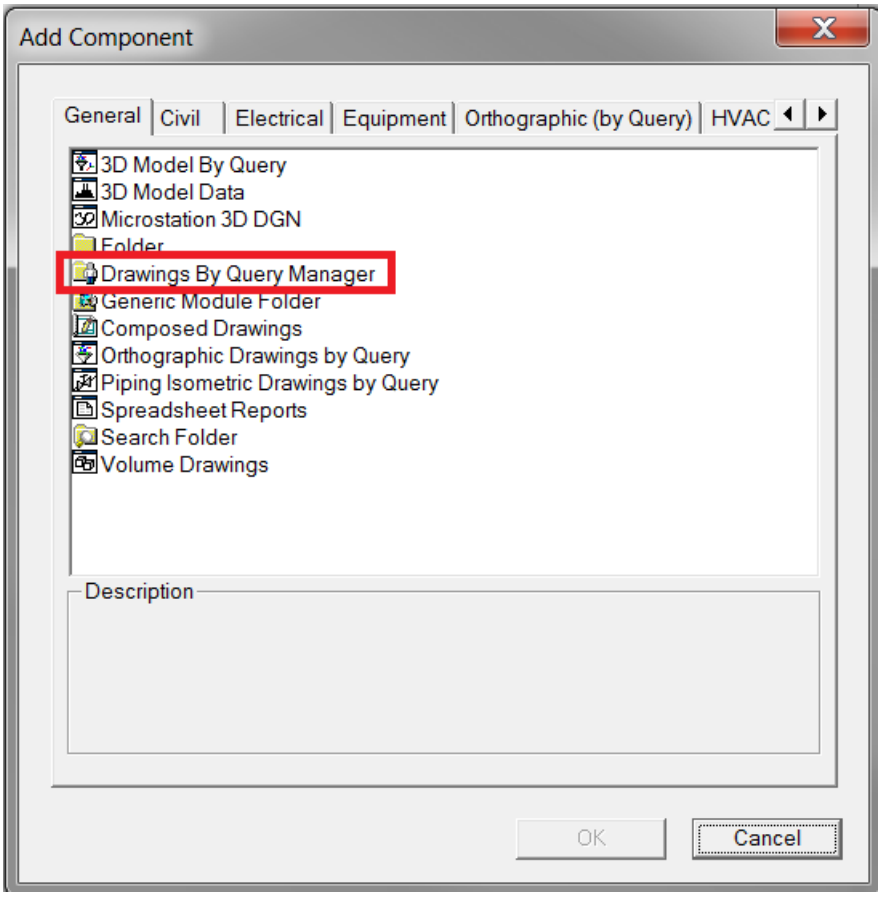
## Create Drawings by Query

NOTE This task is typically performed by your administrator.

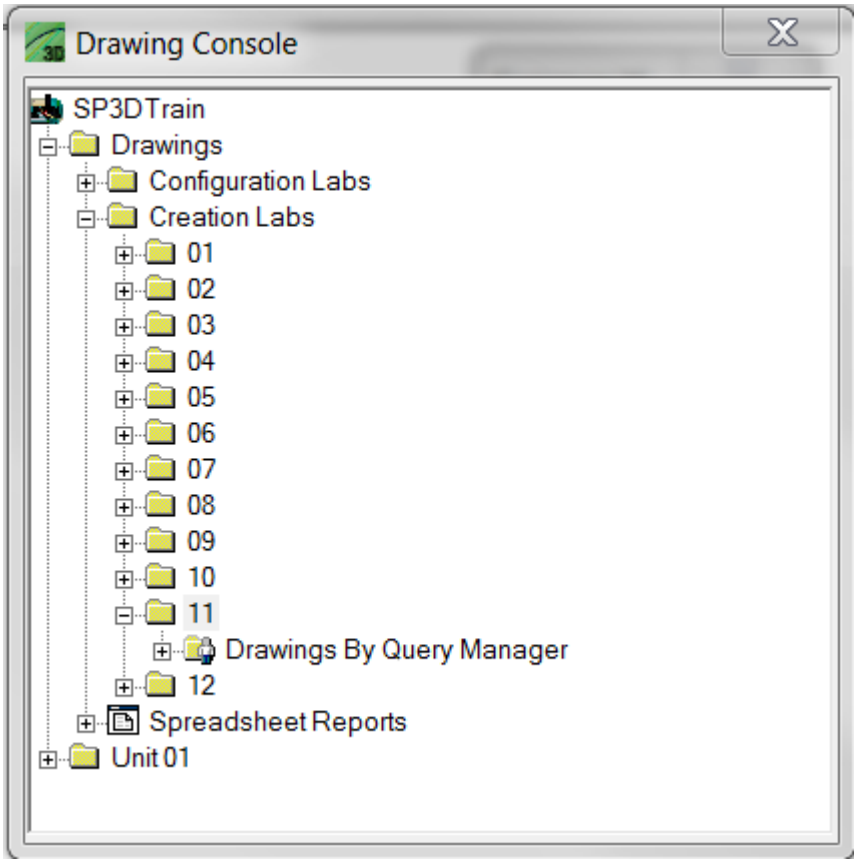
1. Switch to the **Drawing Console** window.
2. Right-click the **Drawings Creation Filters\11** folder in the **Drawing Console**, and select **New**.

   *The **Add Component** dialog box displays.*

3. Select **Drawings by Query Manager** on the **General** tab of the **Add Component** dialog box.

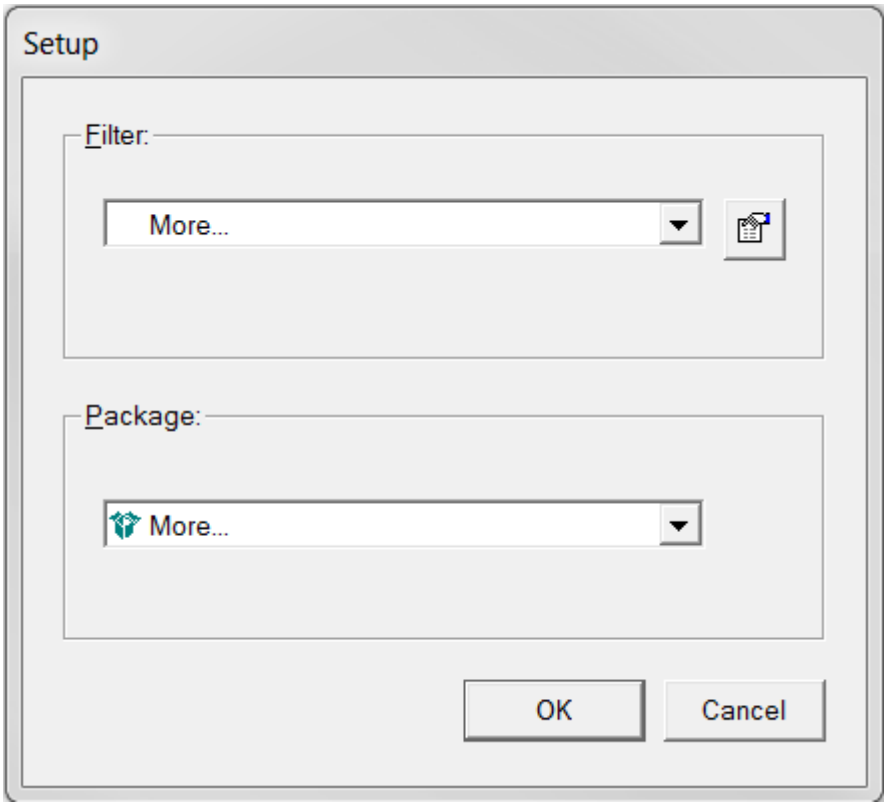


4. Click **OK** on the **Add Component** dialog box to place a new component called **Drawings By Query Manager** under the **11** folder.




5. Right-click **Drawings By Query Manager** in the **Drawing Console**, and select **Rename**.
6. Type **Hanger Support Drawings**.
7. Right-click **Hanger Support Drawings** in the **Drawing Console**, and select **Setup**.

*The **Setup** dialog box displays.*




8. Select **More** from the **Filter** list on the **Setup** dialog box.

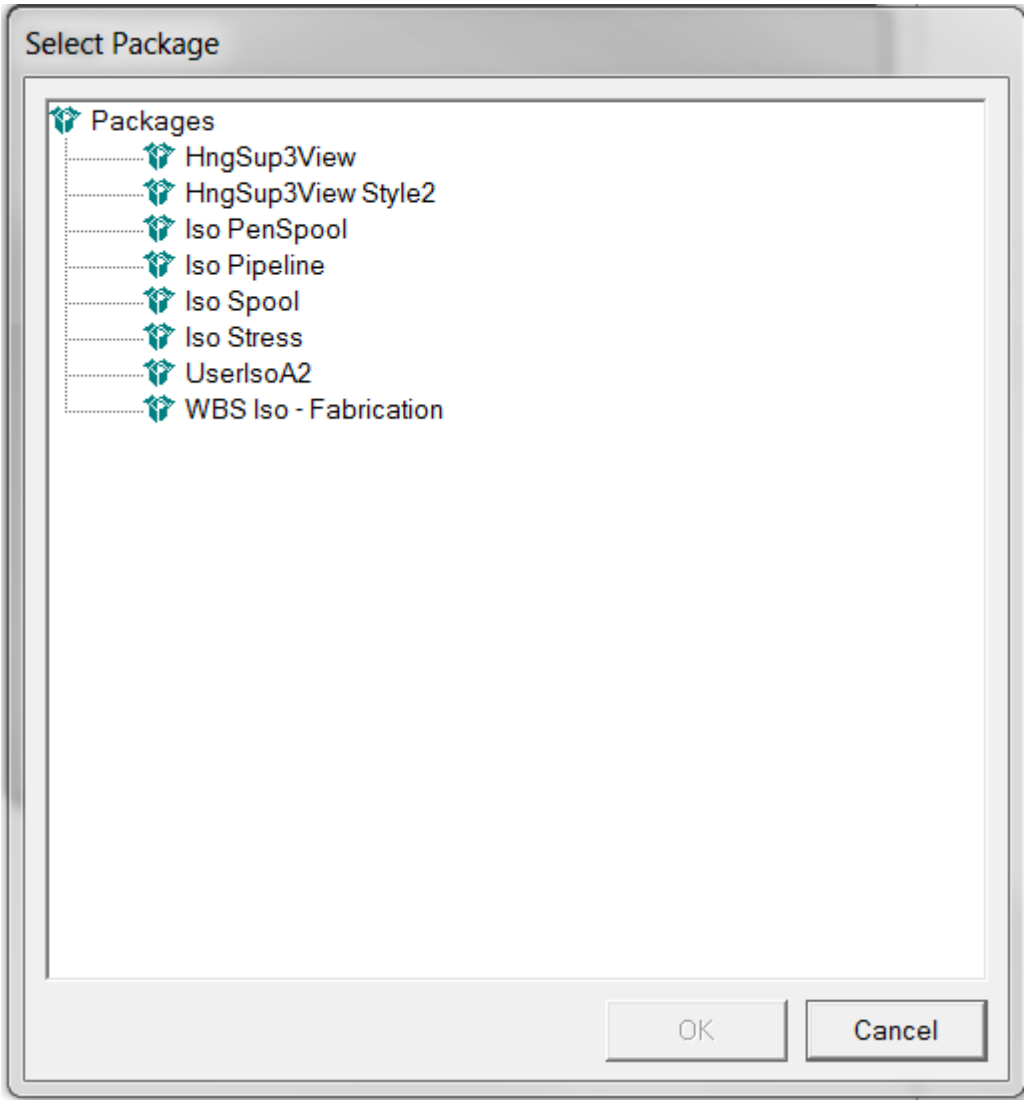
   *The **Select Filter** dialog box displays.*

9. Expand the **11** folder under the **Drawings Creation Filters** node on the **Select Filter** dialog box.
10. Select the **U01 Drawing** filter.
11. Click **OK** on the **Select Filter** dialog box.

    *The software populates the **Filter** field on the **Setup** dialog box.*

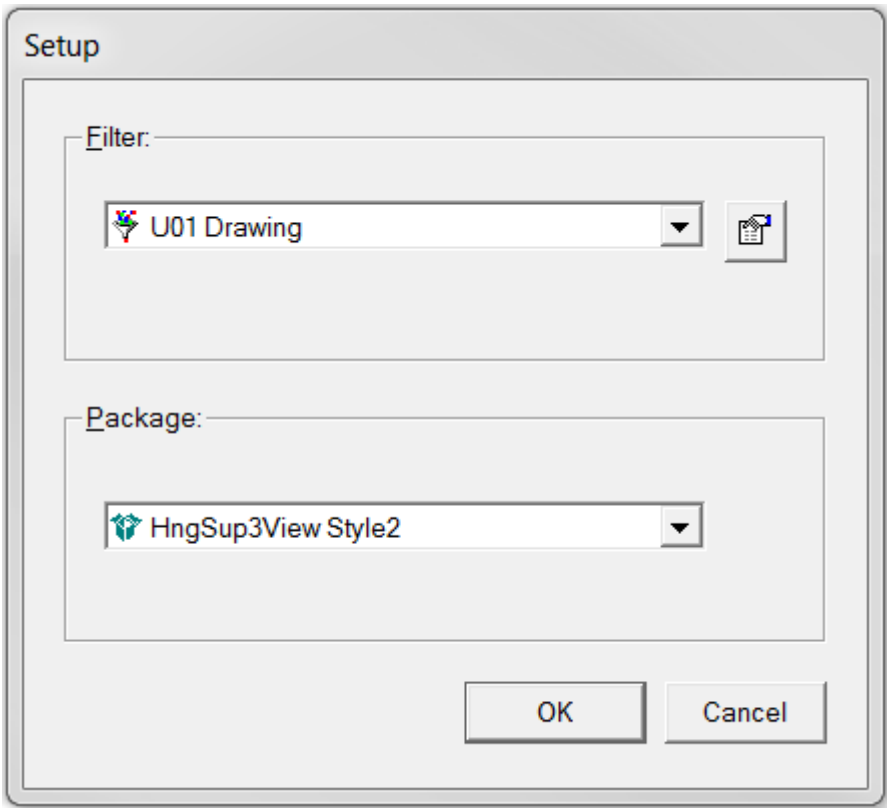
12. Select **More** from the **Package** list on the **Setup** dialog box.

*The **Select Package** dialog box displays.*




13. Select **HngSup3View Style2** on the **Select Package** dialog box.
14. Click **OK** on the **Select Package** dialog box.

*The software returns control to the **Setup** dialog box.*



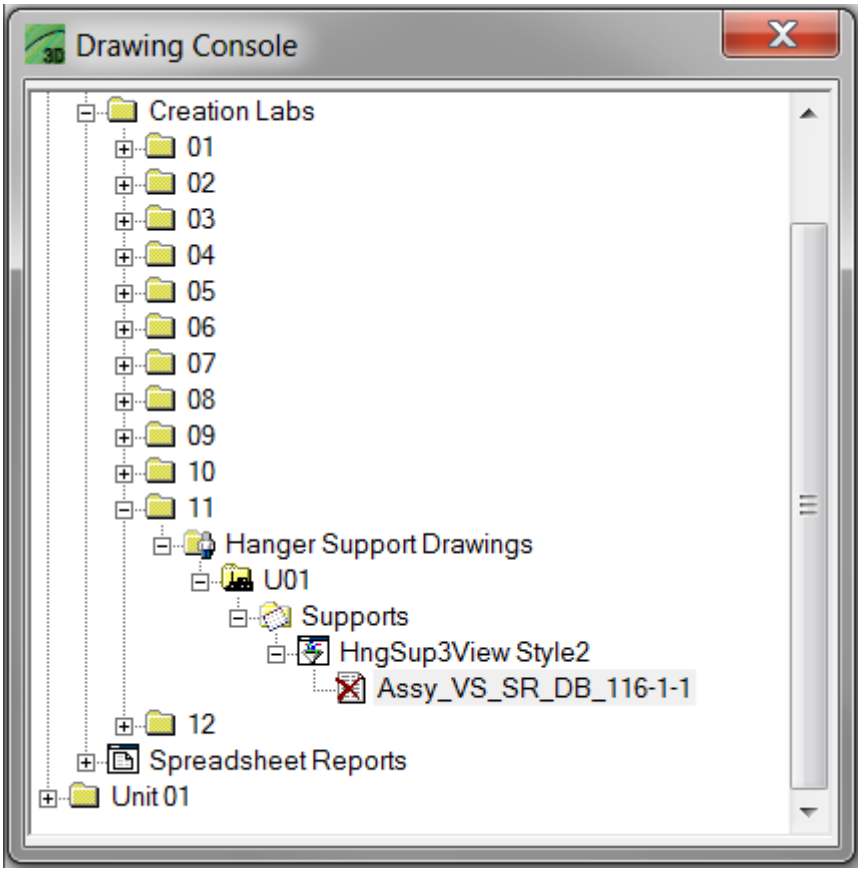

15. Click **OK** on the **Setup** dialog box to save and exit the setup of the DBQM component.
16. Right-click **Hanger Support Drawings** on the **Drawing Console**,and select **Run Query**.

    *The software constructs the hierarchy underneath the DBQM component.*

    TIP The hierarchy is constructed from the filter value on the DBQM setup, in this case the **U01** unit system, down to each hanger assembly.
17. Right-click **Hanger Support Drawings** on the **Drawing Console**, and select **Create Drawing(s)**.

    *The software creates a drawing for each hanger assembly under the **U01** unit system.*

18. Expand **Hanger Support Drawings** and each node underneath until the drawing displays.




19. Right-click the drawing on the **Drawing Console**, and select **Update Now**.

    *The software generates the drawing.*

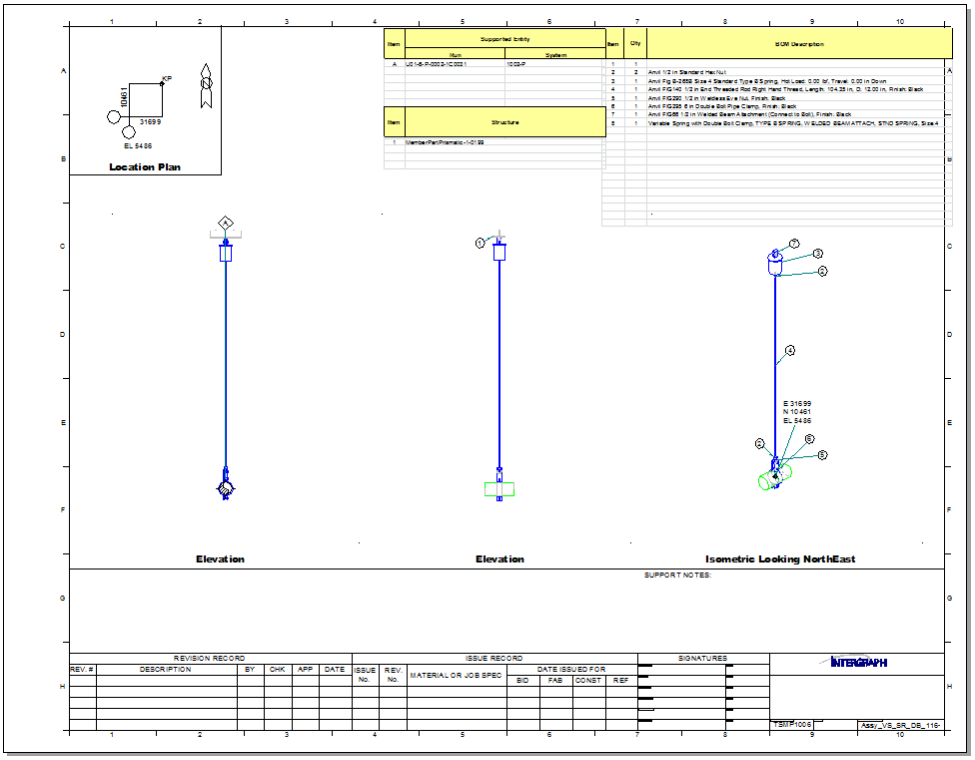
20. After the update completes, right-click the drawing on the **Drawing Console** window, and select **Edit.**

    *The **SmartSketch Drawing Editor** window displays.*

21. Maximize the drawing window in **SmartSketch Drawing Editor**.

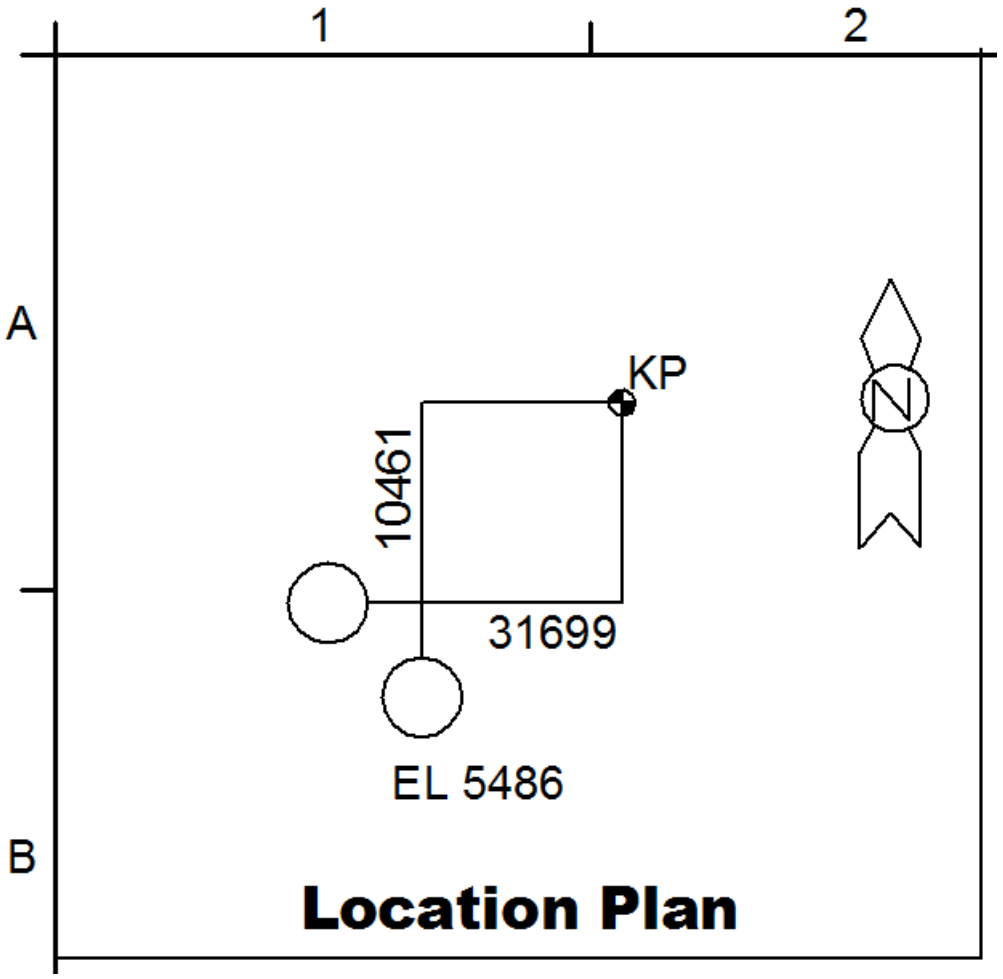
22. Click **Fit** .

*The drawing contents should look similar to the picture below:*




23. Click **Zoom Area** .

24. Drag a rectangle around the top left quadrant of the drawing to get a closer look at the contents.



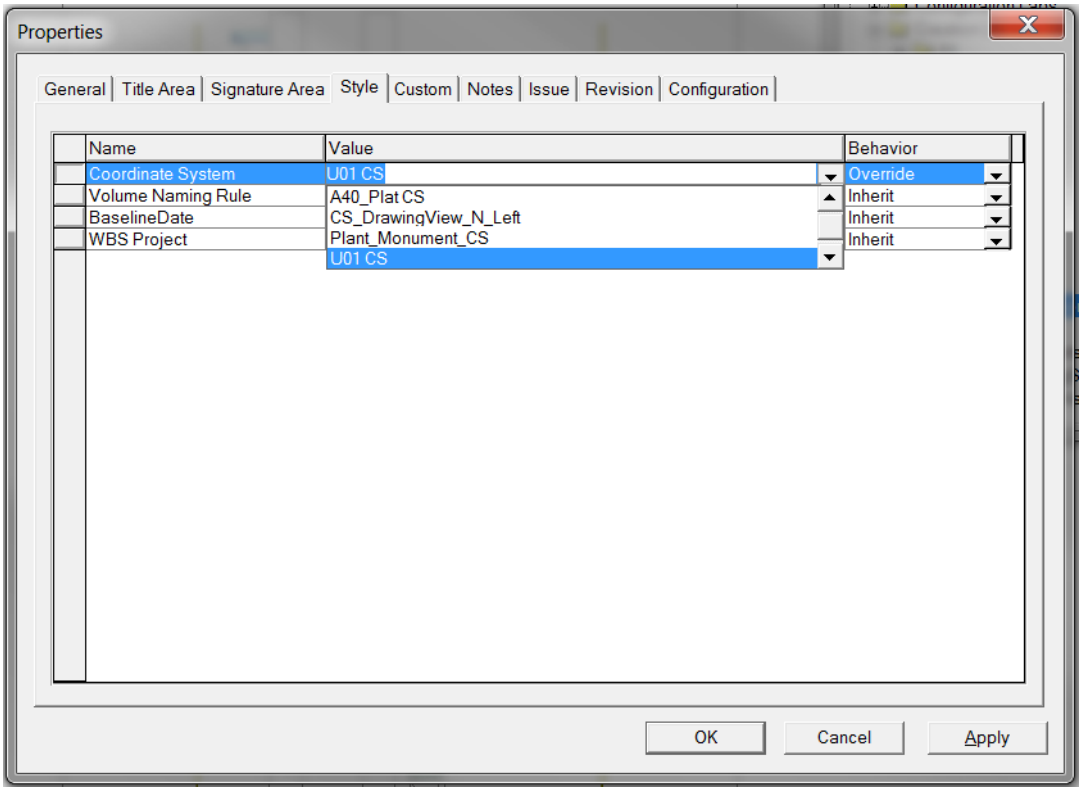

*The grid bubbles are empty. This is because the distances are measured from the Global origin. In the next section of this lab, you will measure the hanger key point relative to the closest grid intersection of the* U01 CS *coordinate system.*

25. Click **File > Exit** to exit **SmartSketch Drawing Editor**. You do not need to save the drawing because you did not change it.

# Modify Coordinate System for Labels

1. Switch to the **Drawing Console** window.
2. Right-click the **Hangers Support Drawings** component in the **Drawing Console**, and select **Properties**.

   *The **Properties** dialog box displays.*
3. Click the **Style** tab on the **Properties** dialog box.
4. Select **U01 CS** from the **Coordinate System** list.

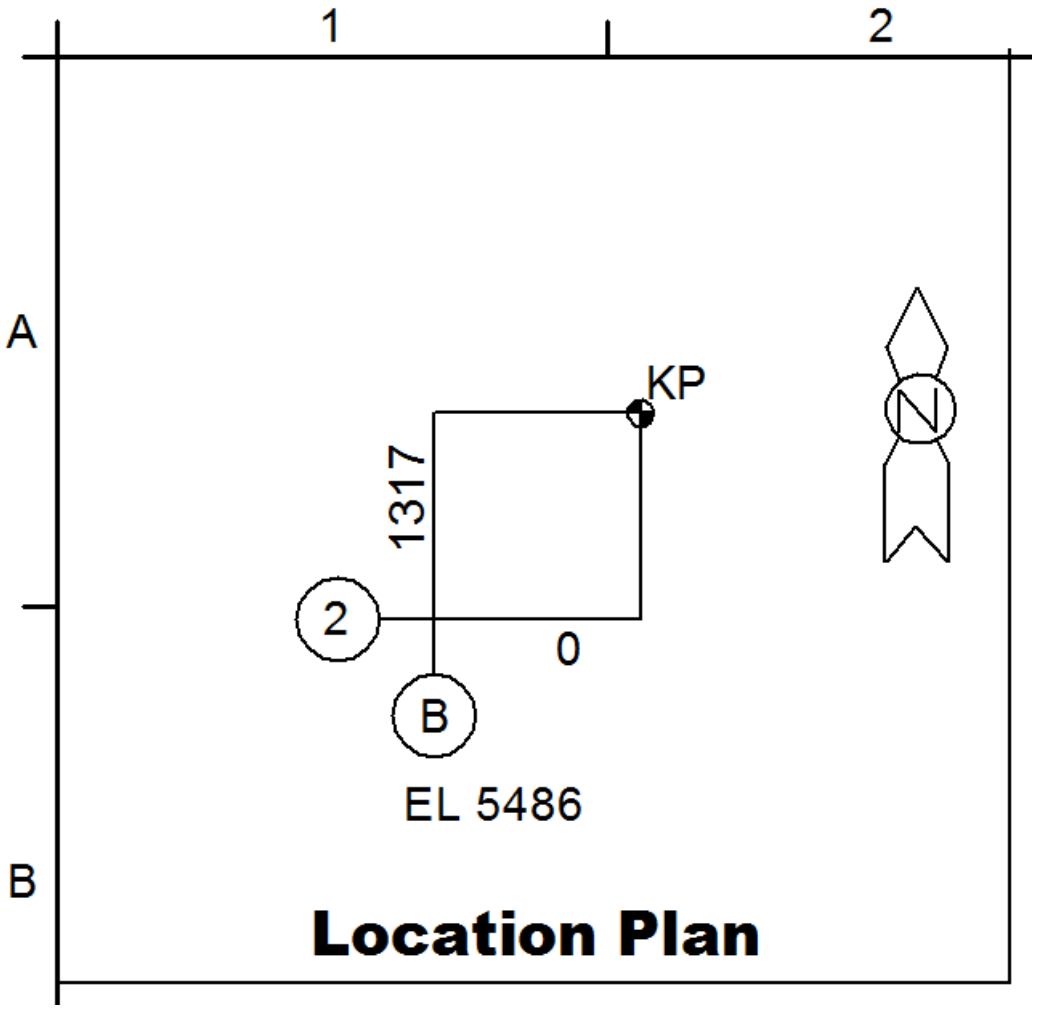



5. Click **OK** on the **Properties** dialog box.
6. Right-click the drawing in the **Drawing Console**, and select **Update Now**.
7. The property change updates.
8. Right-click the drawing In the **Drawing Console**, and select **Update Now**.

   *The software generates the drawing.*
9. After the update completes, right-click the drawing in the **Drawing Console** window, and select **Edit**.

   *The **SmartSketch Drawing Editor** window displays.*
10. Maximize the drawing window in **SmartSketch Drawing Editor**.
11. Click **Fit** .

12. Click **Zoom Area** .
13. Drag a rectangle around the top left quadrant of the drawing to get a closer look at the contents.




*The grid bubbles are populated, indicating the nearest grid intersection to the assembly.*

14. Click **File > Exit** to exit **SmartSketch Drawing Editor**. You do not need to save the drawing because you did not change it.