

Drawing Creation Tutorial

Properties of Drawings



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SESSION 8

Properties of Drawings

Objective

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

- Edit properties at the root, folder or drawing level
- Create drawing and component level notes
- Create, edit, and delete revision information

Overview

Smart 3D allows users to set properties for drawings and nodes at any level in the drawing hierarchy. The software propagates properties from parent nodes to child nodes and drawings. For example, you can display the Properties dialog box for a folder named "Isometric Drawings." If you set the Division Location property to "Huntsville, Alabama," the software pushes this value to the items contained within the Isometric Drawings folder.

You can specify inheritance for each item with the Properties dialog box. Select Override to prevent a property from inheriting from the parent. You can provide a new, overriding value for the property. This new value then propagates to other items deeper in the hierarchy.

You can Force Override properties on all child nodes, canceling the previous override settings.

Properties for drawings are classified into tabs:

- General Tab - Shows general properties for a drawing item, such as the size of drawing.
- Title Area Tab - Shows properties for the title area of the drawing, such as the company name and the drawing name.
- Signature Area Tab - Shows properties for the signature area of drawings, such as Drawn by and Approved by.
- Style Tab - Shows properties that set the style for a drawing, such as the coordinate system and the WBS project.
- Custom Tab - Shows user-specified custom drawing properties.
- Notes Tab - Shows notes for a folder, component or a drawing. Notes from parents in the hierarchy are accumulated and available in the read-only Parent Notes section of this tab. Notes for the current item are in the Notes section of this tab.
- Issue Tab - Shows issue properties for a drawing, such as the issue number, description, and date of issue. If a drawing is issued more than once, there can be multiple entries for the same drawing.
- Revision Tab - Shows revision properties for a drawing, such as revision marks, minor revision numbers, and descriptions. It also allows you to add or edit a record for several selected documents, or for all documents under a component. You can delete individual revision records. If a drawing is revised more than once, there can be multiple entries for the same drawing.

Editing Drawing Properties

In this session, we will look at the properties of Drawings in Smart 3D. We will demonstrate how you can create revision information for your drawing. Then we will discuss how such data can be appended, edited and or deleted from a project drawing.

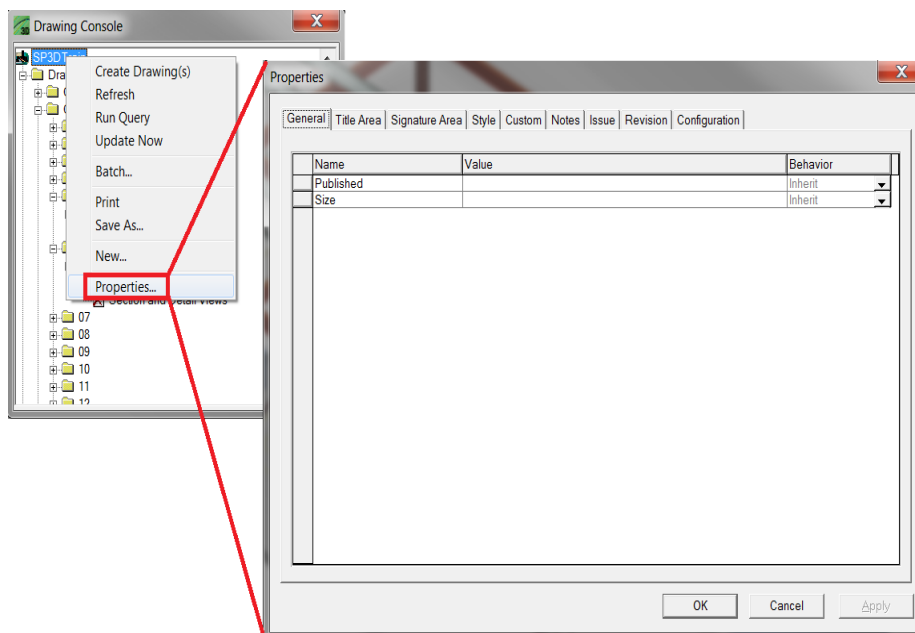
Edit Title and Notes Properties

1. Click **File > Define Workspace**.

*The **Define Workspace** dialog box displays.*

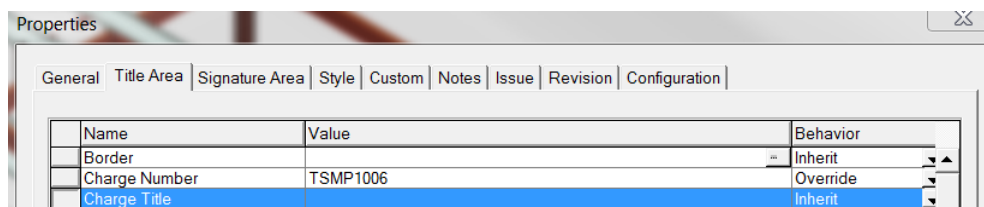
2. Select **More** from the **Filter** list. Then, select **Drawings Creation Filters\07U01 Workspace**, and click **OK**.
3. Click **OK** on the **Define Workspace** dialog box.
4. Switch to the **Drawing Console** window.
5. Right-click the **Root Node**, and select **Properties**.

*The **Properties** dialog box displays.*




6. Click the **Title Area** tab on the **Properties** dialog box.
7. Type **TSMP1006** in the **Charge Number** field.
8. Click in any other field.

*The **Behavior** for **Charge Number** changes from **Inherit** to **Override**.*



TIP If the **Behavior** is **Inherit**, the property value comes from items higher in the hierarchy. If the **Behavior** is **Override**, the value present for the property propagates to other items deeper in the hierarchy unless it encounters another item with an **Override Behavior**. If the **Behavior** is **Force Override**, the property setting is forced to items deeper in the hierarchy, even if they are set to **Override**.

9. Click the **Notes** tab.
10. Type **Root Level Notes** in the **Notes** field.



A screenshot of the 'Notes' field in a dialog box. The field is a text area with the text 'Root Level Notes' entered. Below the text area is an 'OK' button.

11. Click **OK** on the **Properties** dialog box.
12. Right-click on the **Equipment** node in the **Creation Labs\07** folder, and select **Properties**.
*The **Properties** dialog box displays.*
13. Click the **Notes** tab.

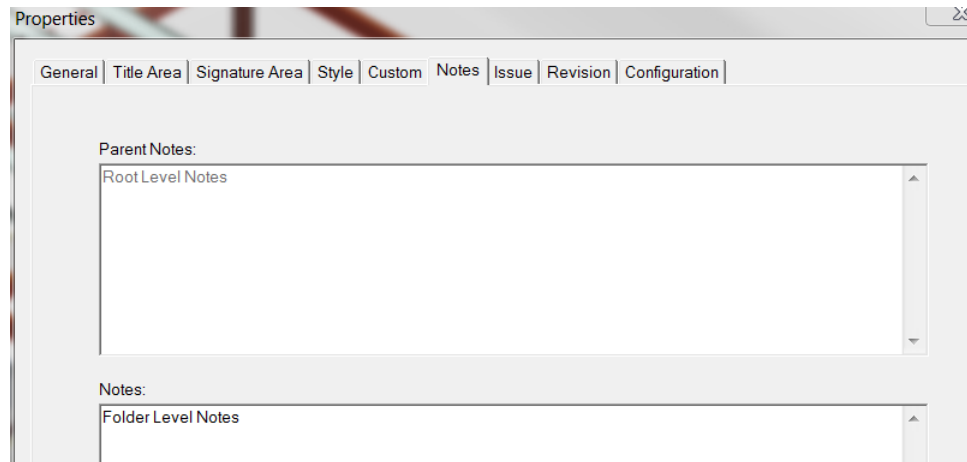
*The notes entered at the root level display in the **Parent Notes** section.*



A screenshot of the 'Properties' dialog box with the 'Notes' tab selected. The dialog box has a title bar 'Properties' and a close button. Below the title bar are tabs: 'General', 'Title Area', 'Signature Area', 'Style', 'Custom', 'Notes', 'Issue', 'Revision', and 'Configuration'. The 'Notes' tab is active, showing a 'Parent Notes' section with a text area containing 'Root Level Notes' and a 'Notes' section with an empty text area.

TIP Text that appears in the **Parent Notes** field is inherited from higher in the hierarchy. It is presented read-only and cannot be overridden.

14. Type **Folder Level Notes** in the **Notes** field.



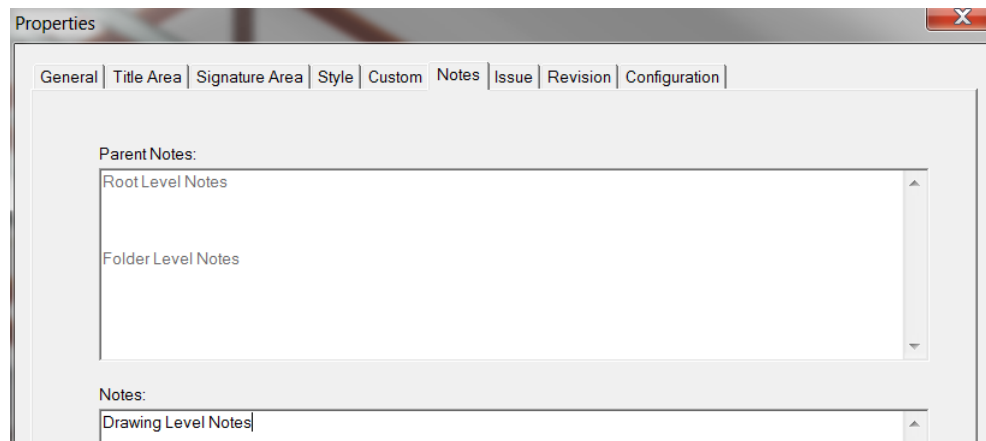
15. Click **OK** on the **Properties** dialog box.

Add Notes

1. Right-click **Equipment Plan01** on the **Equipment** node in the **Creation Labs\07** folder, and select **Properties**.

*The **Properties** dialog box displays.*

2. Click the **Notes** tab.
3. Type **Drawing Level Notes** in the **Notes** field.



4. Click **OK** on the **Properties** dialog box.
5. Right-click **Equipment Plan01**, and select **Update Now**.



TIP If property changes are indicated for a drawing, the **Update Now** command only updates the property changes to the border and does not update the drawing graphics. You must perform a second update to synchronize the drawing's graphics to the model.

The intent of this implementation is to avoid updating graphics if only a property change has been made to the drawing. The drawing receives a green check mark after the update of the property changes.

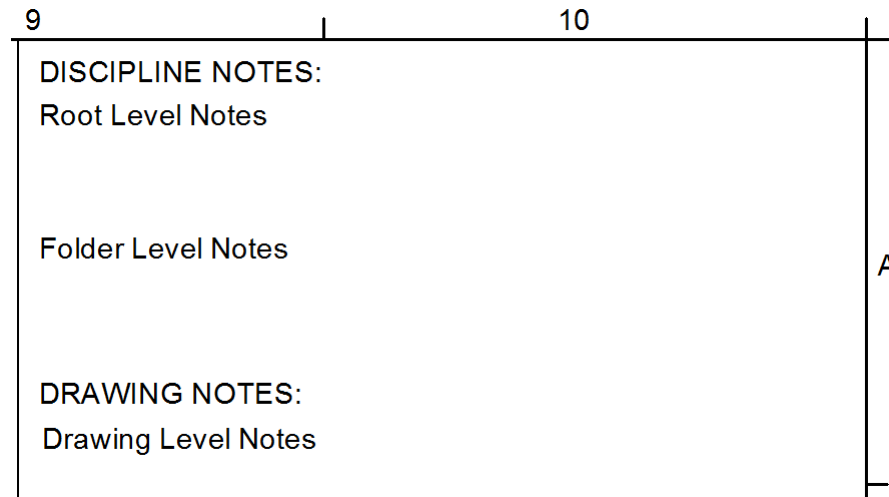
However, if the drawing is flagged for both property and modeling changes, the green check mark after performing the property change update can mislead you to think the graphics have been updated also.



6. When the update completes (as shown by the status bar message in the lower left corner of the **Smart 3D** window), right-click the drawing **Equipment Plan01**, and select **Edit**.

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

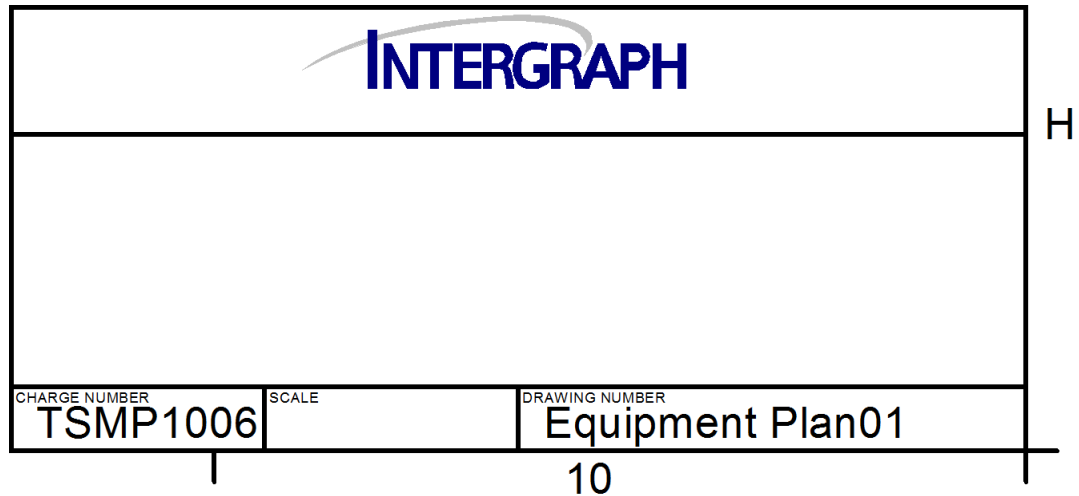
7. Maximize the drawing window in **SmartSketch Drawing Editor**.
8. Click **Fit** .
9. Click **Zoom Area** .
10. Drag a rectangle around the upper right quadrant of the drawing border to get a closer look at the notes added to the drawing.

The results should look similar to the picture below:



11. Click **Fit** .
12. Click **Zoom Area** .
13. Drag a rectangle around the lower right quadrant of the drawing border to get a closer look at the title block changes added to the drawing.

The results should look similar to the picture below:



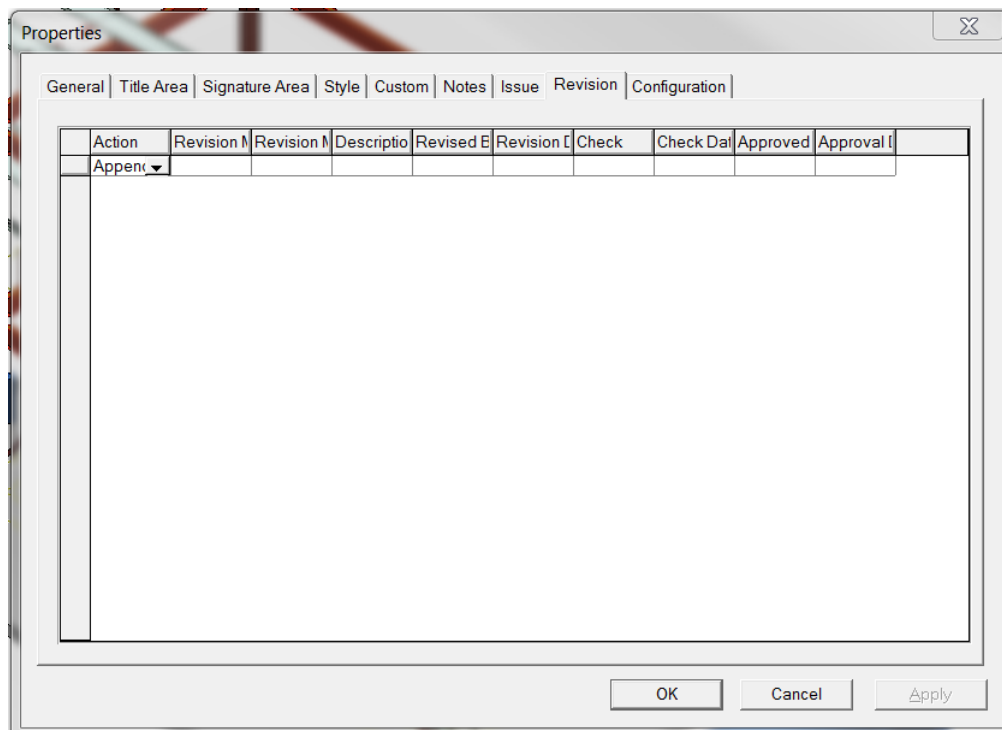
The drawing properties form is a rectangular box divided into three horizontal sections. The top section contains the INTERGRAPH logo. The middle section is a large empty space. The bottom section is divided into three columns: CHARGE NUMBER (containing TSMP1006), SCALE (containing 10), and DRAWING NUMBER (containing Equipment Plan01). The form is labeled with 'I' on the left and 'H' on the right.

CHARGE NUMBER	SCALE	DRAWING NUMBER
TSMP1006	10	Equipment Plan01

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

Add Revision

1. Switch to the **Drawing Console** window.
2. Right-click the **Equipment** component under **Creation Labs\07**, and select **Properties**.
*The **Properties** dialog box displays.*
3. Click the **Revision** tab.

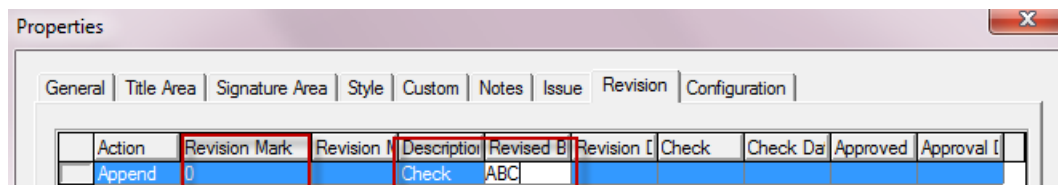


The Properties dialog box is a window with a title bar and a close button. It contains a tabbed interface with the following tabs: General, Title Area, Signature Area, Style, Custom, Notes, Issue, Revision, and Configuration. The Revision tab is selected. The Revision tab contains a table with the following columns: Action, Revision Number, Revision Description, Revised By, Revision Date, Check, Check Date, Approved, and Approval Date. The table is currently empty.

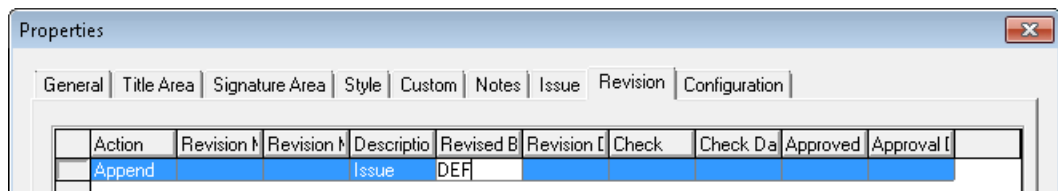
Action	Revision Number	Revision Description	Revised By	Revision Date	Check	Check Date	Approved	Approval Date
Append								

TIP There are two values in the **Action** list:

- **Append Record** (the default value) - Adds a new row to the revision record of all accessible documents that are deeper in the hierarchy. The software populates the added row with the data that you entered in the cells before clicking **Apply** or **OK**.
 - **Edit Last Record** - Modifies the last row in the revision record of all accessible documents that are deeper in the hierarchy. The software populates the last row with the data that you entered in the cells before clicking **Apply** or **OK**.
4. Click the lowest cell in the **Revision Mark** column (this is the column to the right of the **Action** column).
 5. Type **0**, and press TAB twice.
*The cursor advances to the lowest cell in the **Description** column.*
 6. Type **Check**, and press TAB once.
*The cursor advances to the lowest cell in the **Revised By** column.*
 7. Type **ABC**.



8. Click **Apply** on the **Properties** dialog box.
The values disappear from the cells.
9. Click the lowest cell in the **Description** column.
10. Type **Issue**, and press TAB once.
*The cursor advances to the lowest cell in the **Revised By** column.*
11. Type **DEF**.



TIP Notice that no value was assigned for **Revision Mark**. There is a rule for assigning a new revision mark to the documents when using the **Append Record** action. The default rule for adding a new revision mark to a record is to add one to the existing revision mark with the largest positive integer. If no previous revision mark uses a positive integer, the next revision mark is set to 1.

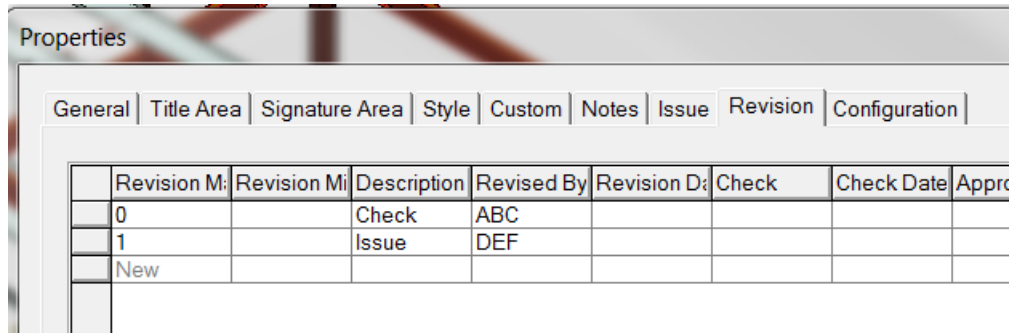
While you can type in your own preferred values to override the rule, the software does not support any other rule for automatically assigning revision marks.

12. Click **OK** on the **Properties** dialog box.
13. Right-click **Equipment Plan01** under **Creation Labs\07** in the **Drawing Console** window, and select **Properties**.

The **Properties** dialog box displays.

14. Click the **Revision** tab.

The revision information appended from the parent component displays in the revision record of the drawing.

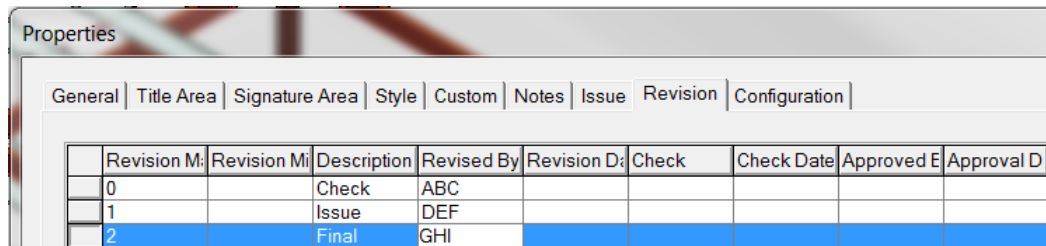


Revision Mark	Revision Mark	Description	Revised By	Revision Date	Check	Check Date	Approval
0		Check	ABC				
1		Issue	DEF				
New							

15. Double-click the lowest cell in the **Revision Mark** column. This cell has the term **New** in it.

The software automatically populates the cell with the next number in the series, in this case, the number 2.



16. Press TAB twice to advance to the lowest cell in the **Description** column.
17. Type **Final**, and press TAB once to advance to the lowest cell in the **Revised By** column.
18. Type **GHI**.



Revision Mark	Revision Mark	Description	Revised By	Revision Date	Check	Check Date	Approved By	Approval Date
0		Check	ABC					
1		Issue	DEF					
2		Final	GHI					

19. Click **OK** on the Properties dialog box.
20. Right-click **Equipment Plan01** in the **Drawing Console** window, and select **Update Now**.
21. When the update completes (as shown by the status bar message in the lower left corner of the **Smart 3D** window), right-click on the drawing **Equipment Plan01**, and select **Edit**.

The **SmartSketch Drawing Editor** window displays.

22. Maximize the drawing window in **SmartSketch Drawing Editor**.
23. Click **Fit** .
24. Click **Zoom Area** .
25. Drag a rectangle around the lower left quadrant of the drawing border to get a closer look at the revisions added to the drawing.

The results should look similar to the picture below:

REVISION RECORD						
REV. #	DESCRIPTION	BY	CHK	APP	DATE	
2	Final	GHI				
1	Issue	DEF				
0	Check	ABC				

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

Editing and Deleting Revisions

- Click **Tasks > Drawings and Reports**.
- Press and hold CTRL. Then, click the **Equipment Plan01** and **Equipment Plan02** drawings in the **Document List**.

TIP It is not possible to multi-select drawings in the **Drawings Console** window.

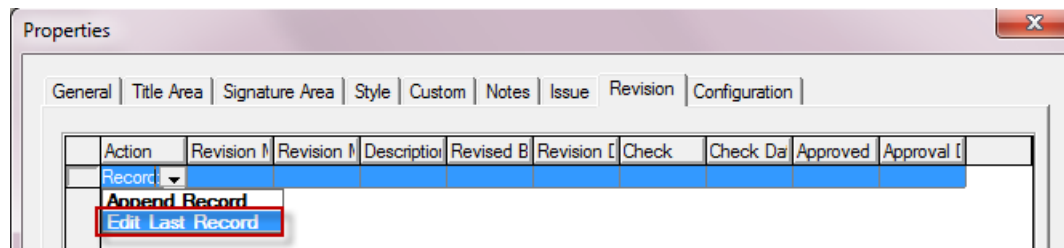
- Right-click over the two highlighted drawings, and select **Properties**.

The **Properties** dialog box displays.

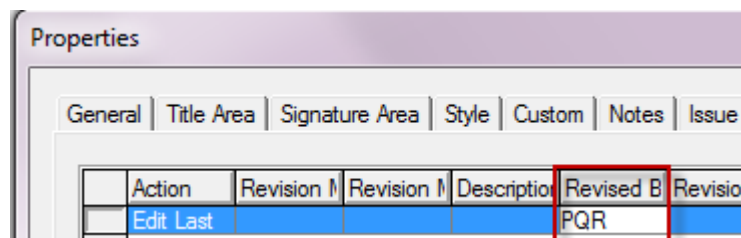
- Click the **Revision** tab.

Notice that when multiple documents are selected, the **Revision** tab looks that same as when a component is selected.

- Select **Edit Last Record** from the **Action** list.



- Click in the lowest cell in the **Revised By** column.
- Type **PQR**.



- Click **OK** on the **Properties** dialog box.
- Click in the white space in the **Detail View**.

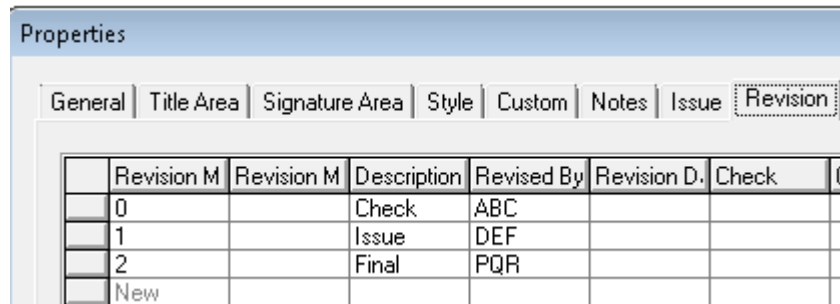
The software clears the selection from the two drawings.

10. Right-click **Equipment Plan01** in the **Detail View**, and select **Properties**.

*The **Properties** dialog box displays.*

11. Click the **Revision** tab.

*The cell entry in the **Revised By** column displays PQR for the last revision record, in this case **Revision Mark 2**.*



	Revision M	Revision M	Description	Revised By	Revision D.	Check	Cl
	0		Check	ABC			
	1		Issue	DEF			
	2		Final	PQR			
	New						

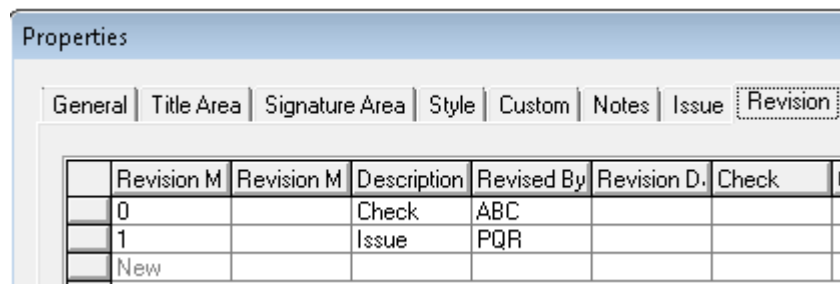
12. Click **Cancel** on the **Properties** dialog box.

13. Right-click **Equipment Plan02** in the **Document List**, and select **Properties**.

*The **Properties** dialog box displays.*

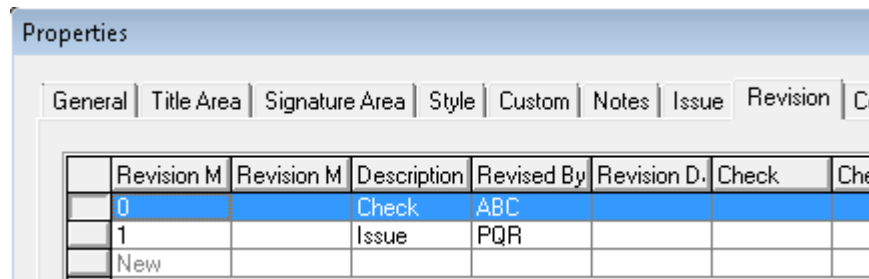
14. Click the **Revision** tab.

*The cell entry in the **Revised By** column displays **PQR** for the last revision record, in this case **Revision Mark 1**.*



	Revision M	Revision M	Description	Revised By	Revision D.	Check	Cl
	0		Check	ABC			
	1		Issue	PQR			
	New						

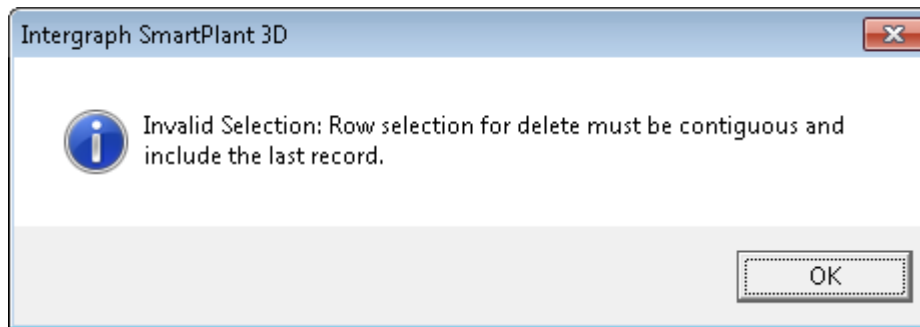
15. Click the cell to the left of **Revision Mark 0** to highlight the top revision row.



	Revision M	Revision M	Description	Revised By	Revision D.	Check	Che
	0		Check	ABC			
	1		Issue	PQR			
	New						

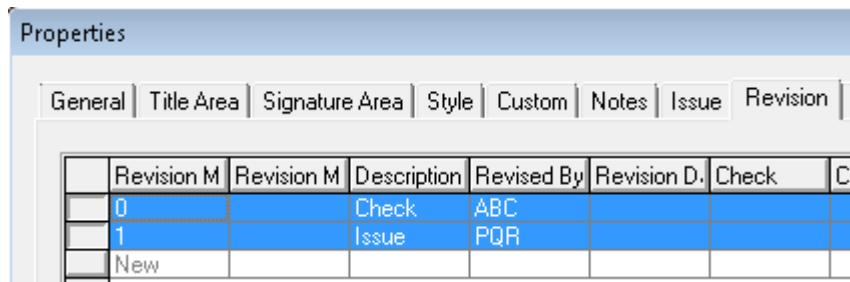
16. Press **DELETE** to attempt to delete that revision row.

A message box displays.



17. Click **OK** on the message box.
18. Press and hold CTRL. Then, select the cell to the left of **Revision Mark 1**.

Both revision rows highlight.



19. Press DELETE to delete the revision rows.
The software deletes both revision rows.
20. Click **Cancel** on the **Properties** dialog box.
The software does not save the delete modification.