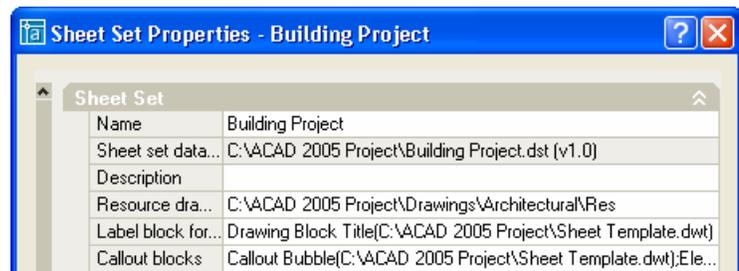# Automating Label and Callout Data

Most sets of drawings contain information that is interrelated. For example a view on one sheet might refer to a view on a different sheet. Using traditional methods, you can manually maintain the text references between sheets but that process can be tedious and error-prone. You can dramatically improve your productivity and drawing accuracy by updating your existing callout and view label blocks to include fields. With field-enabled callouts and view labels, not only is the textual data dynamically updated as changes occur, hyperlinks enable you to open the sheet which is being referred to and automatically zoom to the appropriate location. The new sheet set functionality in AutoCAD 2005 enables you to create links between callouts and views throughout the entire sheet set.

Accessing callout and label blocks

A sheet set may reference one label block and any number of callout blocks. The label and callout blocks can point to block definitions within a drawing (DWG) or template (DWT) or they can point to individual drawing or template files. Even before you customize your callout and label blocks with fields, you can begin using them with your sheet sets. After you associate label and callout blocks with a sheet set, your standard label block will automatically insert when you place a new sheet view and the SSM provides easy access to callout blocks.

1. In the SSM, right-click over the sheet set title and choose Properties.
2. In the Sheet Set Properties dialog box, for the Label Block for Views property, navigate to the drawing (DWG) or template (DWT) where the label is stored.
3. In the Select Block dialog box, choose the appropriate option:
   - Select the Drawing File as a Block if the drawing or template itself is the label block.
     OR
   - Choose Blocks in the Drawing File if the label is stored as a block definition within the drawing or template and then select the appropriate block definition.
4. In the Sheet Set Properties dialog box, for the Callout Blocks property, navigate to the drawing (DWG) or template (DWT) where the callouts are stored.
5. In the Select Block dialog box, choose the appropriate option:
   - Select the Drawing File as a Block if the callouts are stored in an individual drawings or templates.
     OR
   - Choose Blocks in the Drawing File if the callouts are stored as a block definition within the drawing or template and then select the block definition to use.

In some cases you may wish to use different callout blocks for different types of views. For example, you might have a view category called Elevations that points to one set of callout blocks

and a view category called Sections that points to a different set of callout blocks. You can use the View List tab of the sheet set manager to assign callout blocks to different view categories.

1. In the SSM, select the View List tab.
2. Right-click on the sheet set title and choose New View Category.
3. In the View Category dialog box, choose Add Blocks.
4. In the List of Blocks dialog box, choose Add and navigate to the drawing (DWG) or template (DWT) where the callouts are stored.
6. In the Select Block dialog box, choose the appropriate option:
   - Select the Drawing File as a Block if the callouts are stored in an individual drawings or templates.
     OR
   - Choose Blocks in the Drawing File if the callouts are stored as a block definition within the drawing or template and then select the block definition to use.
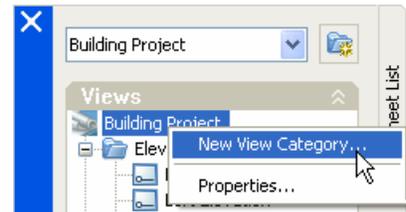
Adding fields to callout and label blocks

You can automate the process of inserting callout and label blocks by associating them with the sheet set, but to fully automate the process of placing views and referencing them with callouts, you must add fields to the blocks. Fields, specifically SheetSetPlaceholder fields, enable you to define callout and label blocks that reference "future" data. For example, you can create a label block with a placeholder field for the viewport scale. What viewport? You don't know yet. That is why it is a placeholder!
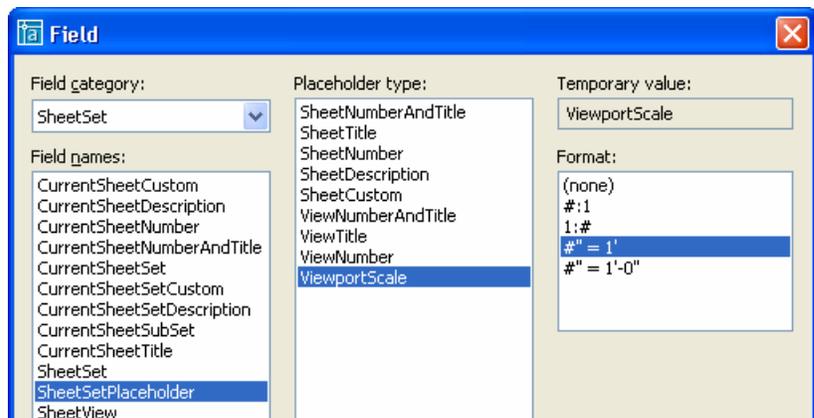
If your callout and label blocks do not contain attribute definitions, you can define block attributes using traditional methods and then insert fields in the Value box. Assuming that your blocks already contain attribute definitions, you will need to modify the attribute definitions to utilize SheetSetPlaceholder fields.

1. From the Modify menu, select Object>Attribute>Block Attribute Manager
2. In the Block Attribute Manager:
   - Select a callout block.
   - Double-click on one of the attributes that requires a field (such as view number, sheet number, or viewport scale).
3. In the Edit Attribute dialog box:
   - Select Preset mode.
   - Right-click in the Default value box and choose Insert Field.
4. In the Field dialog box, under Field category, select SheetSet and under Field names, select SheetSetPlaceholder.

5. Under Placeholder type, select the appropriate option and if applicable, select Associate Hyperlink and then apply the changes.

Using the SheetSetPlaceholder fields in your callout and label blocks enables you to define block attributes for fields that are not associated with any particular sheet or sheet set. The placeholder field that you select depends on the data you want displayed for the attribute you are currently editing. Common placeholder fields include:

- ViewNumber to display the number of the view for which the callout or label is referring.
- SheetNumber to display the number of the sheet for which the callout or label is referring.
- ViewportScale to display the scale of the viewport for which the label is referring.
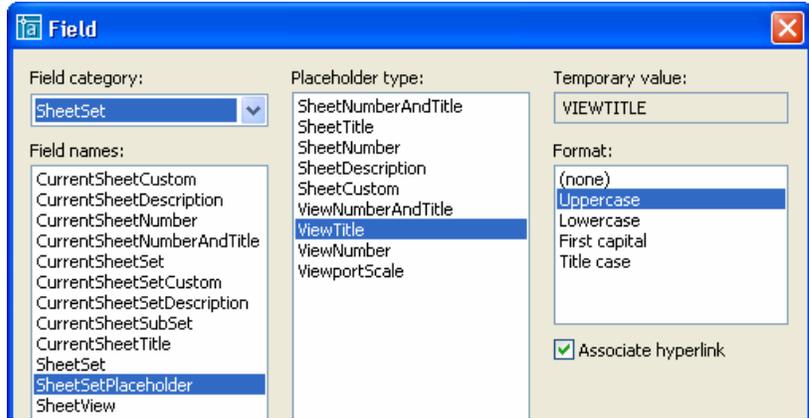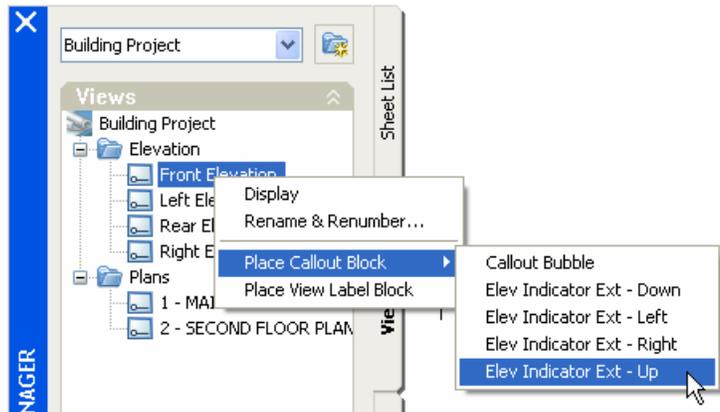

The Associate Hyperlink option is available for view and sheet numbers and titles and is most commonly used for creating callout blocks. If you associate hyperlinks with your callout blocks, you can click on the callout in one sheet and AutoCAD will automatically open the associated sheet and zoom to the proper view.

You can repeat the procedure for inserting callout and label fields as many times as necessary to replace all of the attribute definitions in all of your callout and label blocks with appropriate SheetSetPlaceholder fields.

Verifying callout and label functionality

1. In the Sheet Set Manager, right-click on the sheet set and choose New Sheet.
2. In the New Sheet dialog box, enter a sheet number and title.
3. In the Sheet Set Manager, double-click on new sheet to open it.
4. In the Sheet Set Manager, select the Resource Drawings tab.
5. Navigate to a drawing that contains modelspace views.
6. Drag and drop the drawing or modelspace view within the drawing to the new sheet.
   The label block referenced in the sheet set properties is automatically placed on the drawing.
7. Review the label data to ensure that it displays the correct values.
   By default the view number displays as dashes "----". You must renumber the new sheet view to assign it a value.
8. In the Sheet Set Manager, choose the View List tab and select the newly created sheet view.
9. In the Sheet Set Manager, right-click over the view name and select Rename & Renumber.

10. Make changes to view number and view name and then regenerate the sheet to ensure the values update accordingly.
11. In the Sheet Set Manager, double-click on a different sheet to open it in the drawing editor.
12. In the Sheet Set Manager, select the View List tab, right-click over the view name and select Place Callout Block.
13. Select one of your callout blocks and place it on the sheet.
14. Review the callout data to ensure that it displays the correct values.

You should repeat steps 12-14 as many times as necessary to verify the values of all of your callout blocks.

With the new Sheet Set Manager and field functionality in AutoCAD 2005, you will save time and reduce errors. You can let AutoCAD update text references between views and sheets while you focus on your design!