

That CAD Girl

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Making Sheet Set Manager Work for You

How does it work?

When you create a "sheet set" for your project, Sheet Set Manager manages layouts in your drawing files by considering each layout to be a "sheet" that is part of that "sheet set". Whether the layouts are all in one drawing file or distributed among many drawings, you can manage and make changes to them all through the Sheet Set Manager - without even having one of your project drawings open!

To build Sheet Sets into your CAD Standards, there are generally two steps:

1. Creating intelligent title blocks and callout blocks that reference your standard and custom Sheet Set data.
2. Creating a default Sheet Set data file (.dst) that contains all of the sheet and sheet set properties you need for your projects.

Creating intelligent title blocks and callout blocks that display Sheet Set data

Fields are the real building block behind Sheet Set Manager. Creating intelligent title blocks and callout blocks revolves around this command. The Field command creates dynamic Text, MText or Attribute entities.

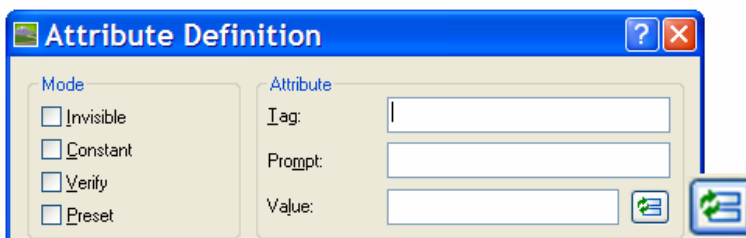
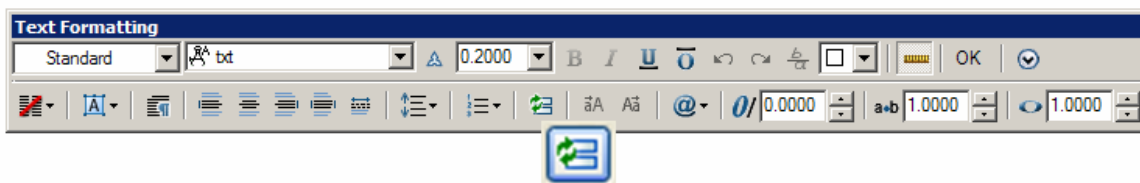
To insert a Field into your drawing:

Insert menu → Field

Command: *field*

Shortcut menu: right-click while Text or MText command is active and select "Insert Field" from the shortcut menu.

Select the *Insert Field* icon from the MTEXT Text Formatting toolbar or the Attribute Definition dialog box.



Fields in Your Title Blocks

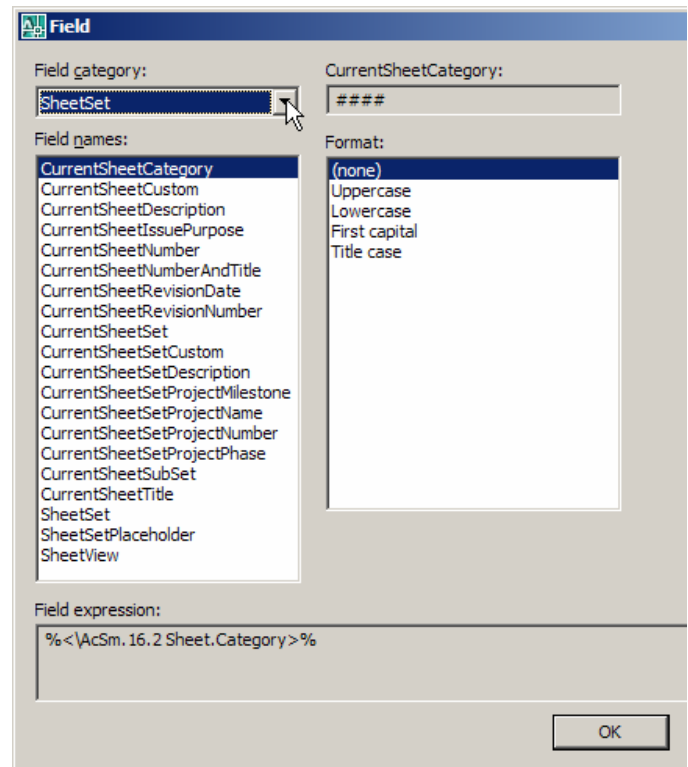
Aside from using Fields with Sheet Set Manager, inserting a Field is an excellent way to automatically display and update basic drawing information in your drawings. You could combine the *SaveDate*, *LastSavedBy* and *FileName* Fields into one MText entity to create a plotstamp that updates whenever the drawing is saved. Browse through the Document and Date & Time Field categories for these handy & helpful Fields.

For pre-defined Sheet Set Fields, select SheetSet in the drop-down box for "Field category" to see a list of the different Fields that can be used with Sheet Set Manager. The list is shown in the dialog at the right.

Note that the Fields for Sheet Sets are generally separated into two groups:

CurrentSheet... properties are for project-related data such as scale, plan date and revisions that are specific to each sheet.

CurrentSheetSet... properties are for project-related data such as project name and project number that will reflect on all sheets in the sheet set.



Here's a Gotcha!

There is not a Field that will automatically count and display the total number of sheets in a sheet set.

You can create a custom sheet set property but will have to enter the total number of sheets manually and update it as sheets are added or removed from the set.

But, check out the Resources Sheet at the end of this document for a handy VBA routine to automatically count the sheets and create a *CustomSheetSet* Property for you.

While the list of pre-defined Fields is fairly thorough with regard to Sheet Sets, it will not satisfy the needs of every office or project. Many times we will have to create our own custom Sheet or Sheet Set properties in order to display the information.

First, you will need to determine how and where the Field will be used...

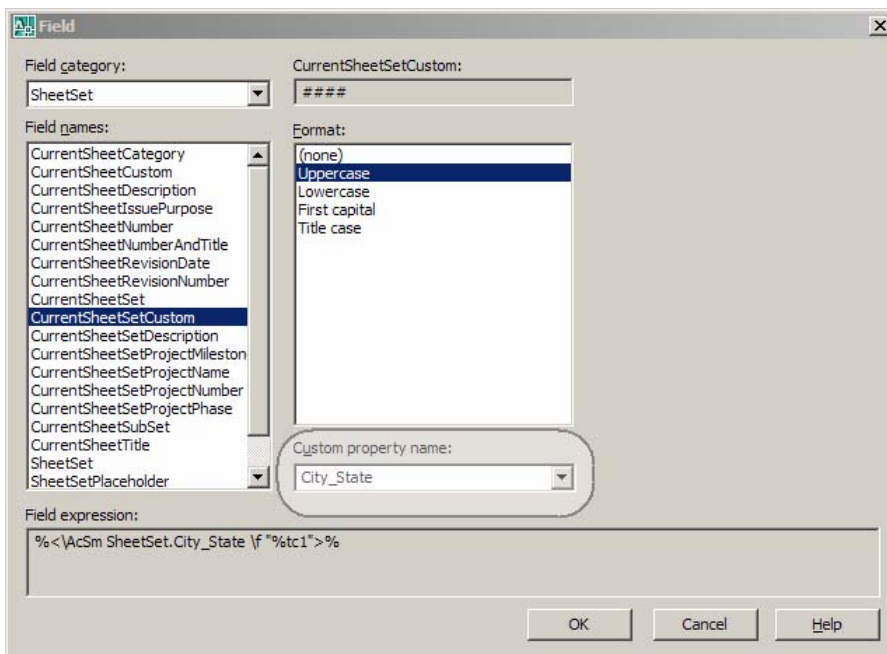
If it applies to all sheets in the Current Sheet Set → Select the *CurrentSheetSetCustom* Field.

Example: The City and State for the project. This information will show up in the title block of all drawings.

If it applies ONLY to the Sheet on which the Field resides → Select the *CurrentSheetCustom* Field

Example: The “Drawn By” initials. Because each sheet could be done by a different person.

Next, in the blank drop-down under “Custom property name:”, type in the name of your custom property.



Here's a Gotcha!

There are basically no restrictions on Custom Property Names; however, for each custom property you create make a note of whether it has been designated a *CurrentSheet* or a *CurrentSheetSet* property and also note the exact spelling and formatting of the custom property.

You will have to enter the same thing again when creating the standard Sheet Set data file and unless the two match exactly, the linking will not work.

After adding Fields to your title block, your project data Fields will look similar to the figure below. Fields appear in a drawing with a shaded background. The shading does not plot; it's just an indicator to you that the text is dynamic. The notes and figure below should help you create your standard title block.

Revisions

Create several custom properties using *CurrentSheetSetCustom*: RevNum01, Rev01, RevDate01, RevNum02, Rev02, RevDate02, etc.

Firm Name and Address

Break this into several custom properties using *CurrentSheetSetCustom*: Firm Name, Firm Address, Firm City/State/ZIP

Project Name and Address

Use *CurrentSheetSetProjectName* for the Project Name and create several custom properties using *CurrentSheetSetCustom* for the address: Project Address, Project City/State/ZIP

Project Number

Use *CurrentSheetSetProjectNumber*

Date

Depending on your need, this Field may be a Sheet property or it may be a Sheet Set property.

There are several options under the Date & Time category such as *SaveDate*, *CreateDate*, *PlotDate*, etc. or you can create a custom property that is manually entered for a "Plan Date" using *CurrentSheetCustom* or *CurrentSheetSetCustom*.

Scale

This can be associated with the Viewport scale by using Field Name "Object" with the "Standard Scale" property or can be created with a *CurrentSheetCustom* property. Look for the critical "Gotcha!" regarding the Drawing Scale Field noted on page 23 of this document.

Sheet Number

Use *CurrentSheetNumber*



Here's a Gotcha!

If you need a Field to be part of a Block, that Field must be embedded into an Attribute entity. A Field that is part of a Text or MText entity and then becomes part of a Block will not update.

So, if you use your title block as an actual Block, all of the Fields listed previously must be embedded into Attributes to work properly.

Callout blocks are, by definition, Blocks - so any Fields must be embedded into an Attribute.

Fields in Your Callout Blocks

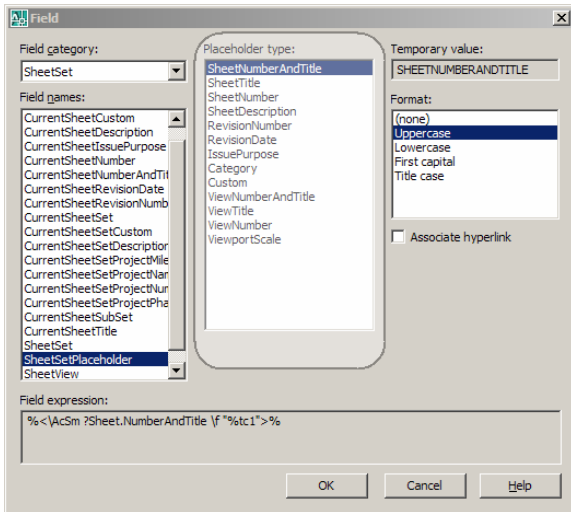
Callout Blocks are notes that reference other sheets. When used with Sheet Set Manager, they must be Block entities.

Recall that the Fields we have discussed to this point refer either to the *CurrentSheetSet* or the *Current Sheet*. Meaning that the Field we insert will display information about the sheet (or layout tab) it is inserted on. We have not come across any Fields that allow us to point to a different sheet.

For instance, on Sheet 001, I need to place a matchline that directs someone to "See Sheet 002". For this matchline Block, I am not able to use any of the Fields that point to a *CurrentSheet* because that would only point to Sheet 001. So, we need another option.

The *SheetSetPlaceholder* Field was created for the purpose of referencing information from one sheet to another sheet.

When you select the *SheetSetPlaceholder* Field, you get a list of pre-defined "Placeholder Types" as shown below. By using the *SheetSetPlaceholder* Fields you can access Sheet Set data about any sheet in the set from any other sheet.



For most of our callout blocks, you will use the *SheetNumber* or *SheetTitle* Placeholder.

To create custom properties for a Placeholder Field, select the Placeholder type: "Custom" from the list.

To work as intended in Sheet Set Manager, Callout Blocks must be Blocks - so the examples below must be created by embedding Fields into Attribute entities.

After adding Fields to your callout blocks, your project data Fields will look similar to the figures below. Because the Fields in both of these examples refer to sheet data from a different sheet than the Block is to be placed, use Field Name: *SheetSetPlaceholder* and Field Type: *SheetNumber* for both.

MATCHLINE SHEET SHEETNUMBER

SEE SHEET SHEETNUMBER
FOR DETAIL

Creating a default Sheet Set data file (.dst)

Creating a default Sheet Set data file requires us to work in the Sheet Set Manager palette.

To open the Sheet Set Manager:

Tools menu → Palettes → Sheet Set Manager

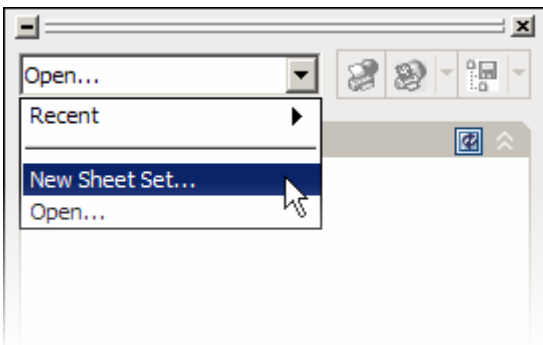
Command: *sheetset*

Quick Key: *CTRL + 4*

Standard Toolbar icon:



It is not necessary to have any of your actual project drawings open when working with Sheet Set Manager; however, Autocad requires a drawing to be open. Even the empty and blank drawing that starts when Autocad is launched is fine.

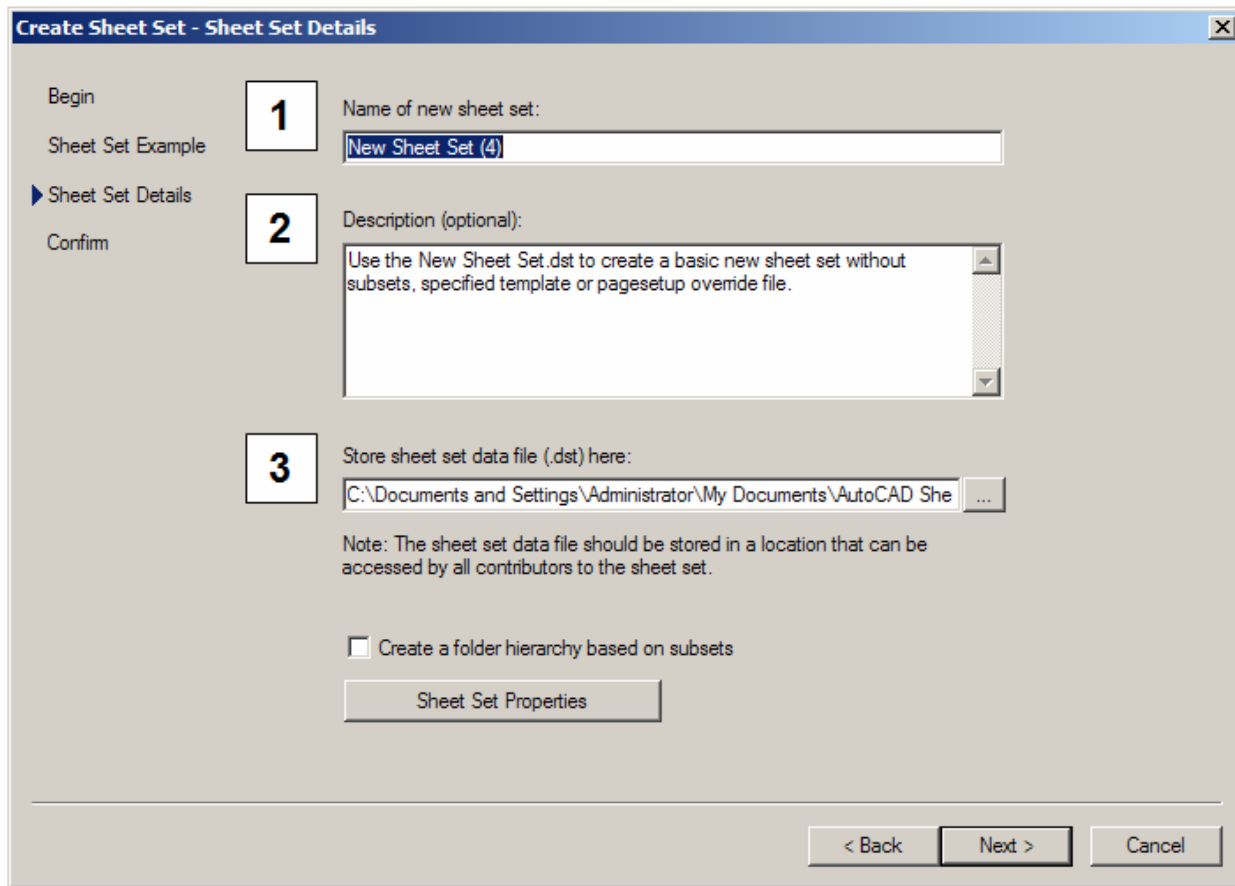


In the Sheet Set Manager palette, click on the drop-down and select "New Sheet Set..." to launch the wizard.

When prompted to "Create a sheet set using"... Choose "An example sheet set" and then pick on Next.

When prompted to "Select a sheet set to use as an example"... Choose the "New Sheet Set" and then pick on Next.

Land Desktop and Civil 3D supply several example sheet sets that you can choose from and each contains various organizational and custom properties. The examples in this handout use the most basic of those provided, the "New Sheet Set". When creating your own standard file, you may find one of the other example sets to be a better starting place.



1

Name of new sheet set:

Because this sheet set data file (.dst) will become your standard, give it a generic name that corresponds to your standards naming convention. Example:

<CompanyName>_Standard.dst

2

Description

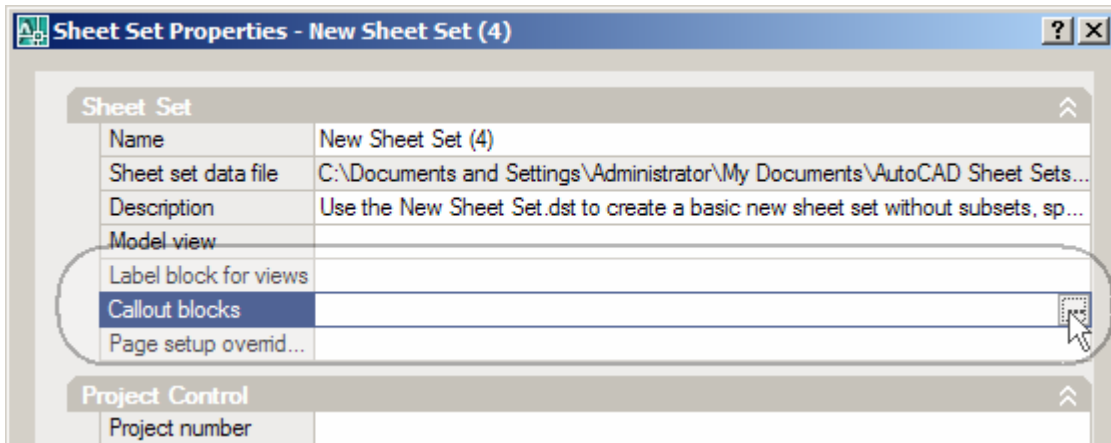
Delete the given description and provide one of your own describing your standard .dst file. The date the file was created is usually good information to include.

3

Store sheet set data file (.dst) here

Because you are creating your standard .dst file, save this file in your standards directory on your server. By default, Autocad saves the file in the "My Documents" folder.

When finished with the steps above, click on the button for "Sheet Set Properties".



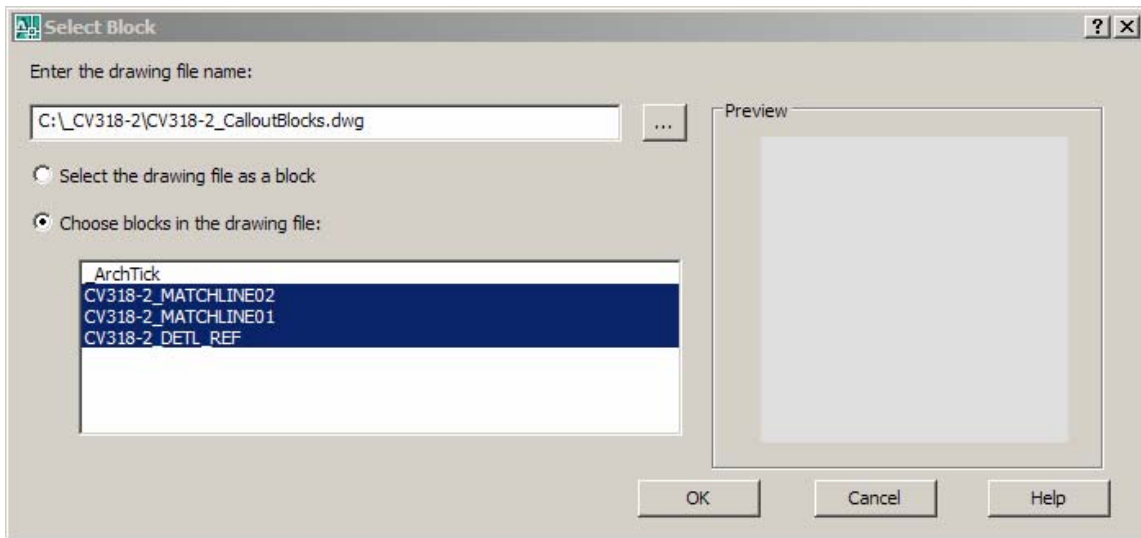
The first thing to set in the Sheet Set Properties dialog box is the location, filename(s) and Block name(s) for the callout blocks.

Select in the blank next to "Callout blocks" and then click on the ellipsis button to show the list of available callout blocks for the Sheet Set. Because this is a new file, the list will be empty so you must click on the "Add" button to add Blocks to the list.

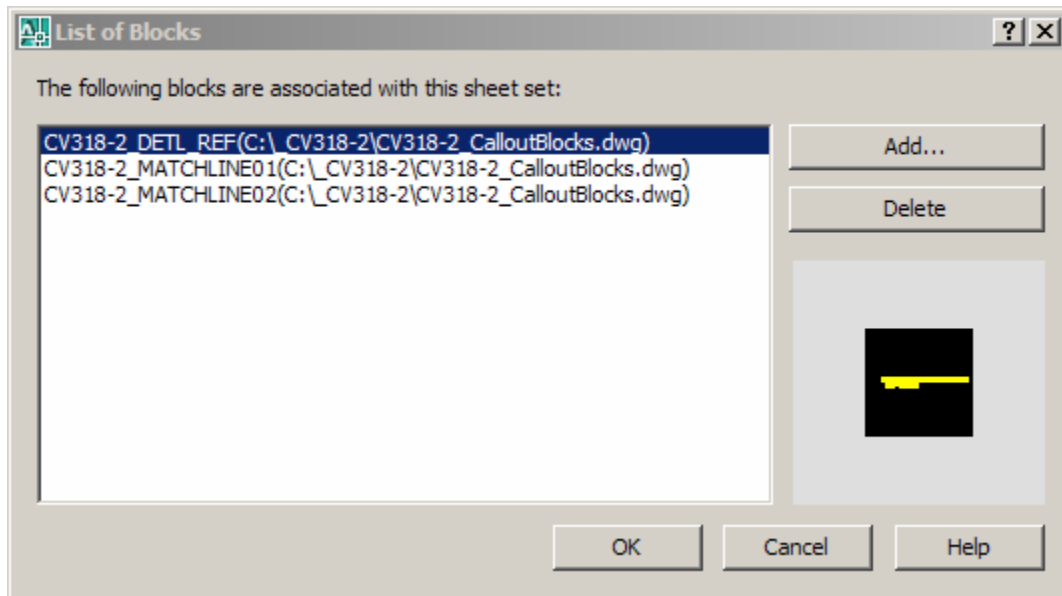
After clicking on "Add", you will see the "Select Block" dialog box which is shown below. Where you are prompted to "Enter the drawing file name:" click on the ellipsis button to browse to the file that contains your callout block definitions.

Select the radio button next to "Choose blocks in the drawing file and use SHIFT-Select or CTRL-Select to choose the callout blocks to use with this Sheet Set.

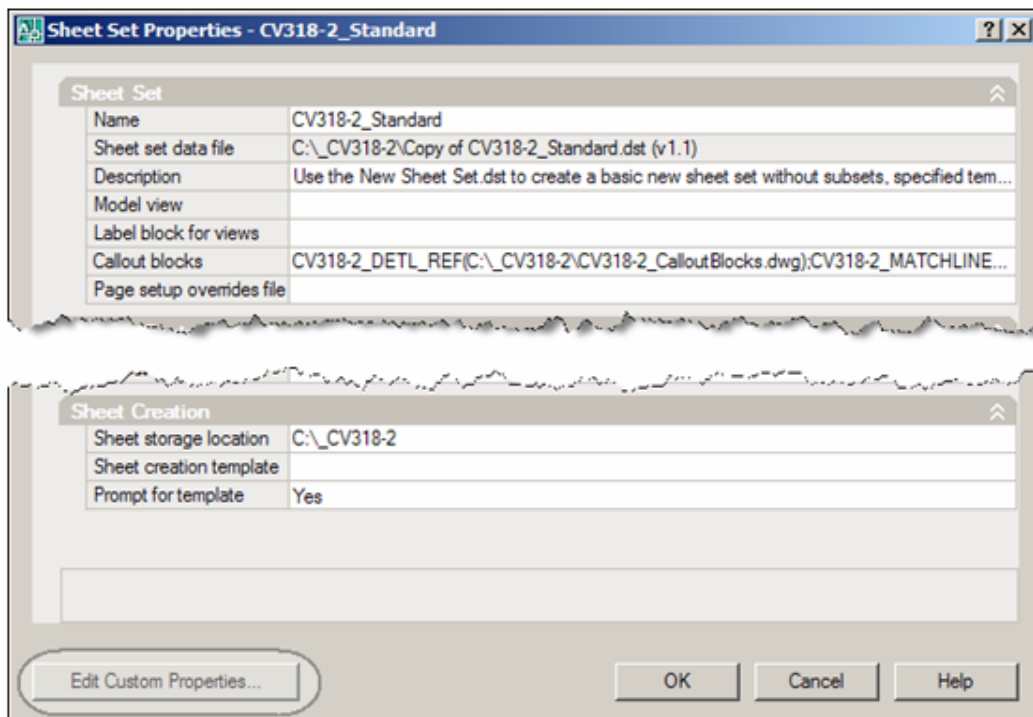
Pick OK to continue.



Your "List of Blocks" that are associated with this sheet set has now been populated as shown below. Pick OK to continue.

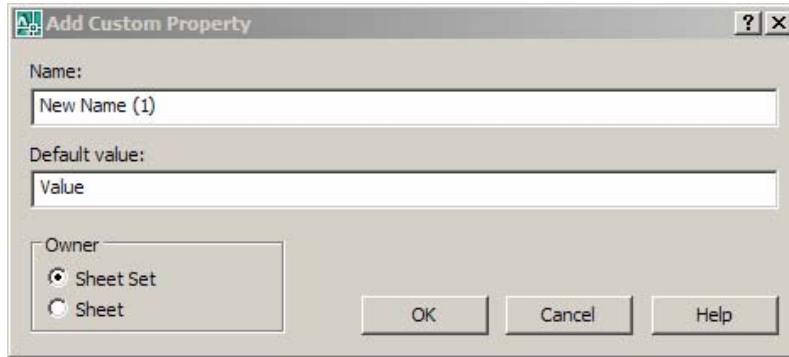


Now back in the Sheet Set Properties dialog box, the next thing to define for your Sheet Set are the custom properties. Click on the "Edit Custom Properties" button.

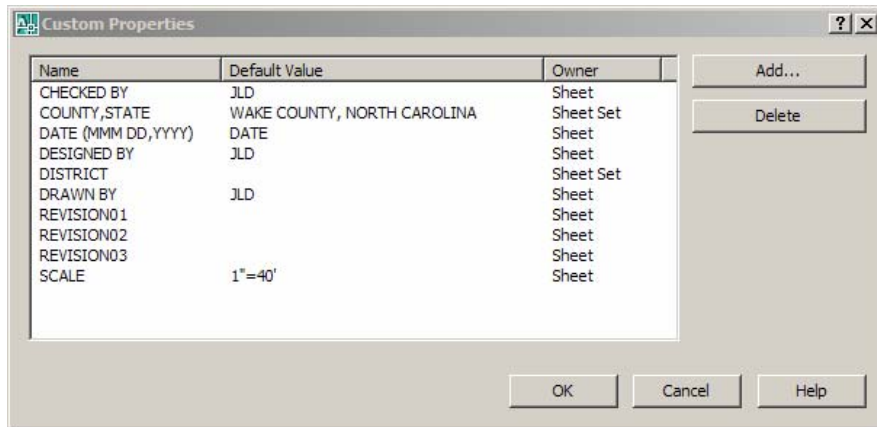


Because this is a new file, the list of Custom Properties will be empty so you must click on the “Add” button to add custom properties to the list.

After clicking on “Add”, you will see the “Add Custom Property” dialog box.



For each custom property to be added to the Sheet Set, complete the entries for “Name:” and “Default value:”. Also, be certain to choose the correct “Owner” of the property - either the Sheet Set or the Sheet. It does not matter what order the Custom Properties are entered - they will be sorted alphabetically in the Sheet Set data file. After entering all the custom properties, click on OK to return to the list of Custom Properties



Here's a Gotcha!

In order for the Sheet Set data file and your standard title blocks and callout blocks to work together, the details of the Custom Property defined here must match the Fields defined in the title block and callout blocks EXACTLY.

And Another... Once defined, the name or the owner of the Custom Property can not be changed - it must be deleted and re-created. However, the default value can be changed by double-clicking on them in the list of Custom Properties.

Now populated with your default values, your Sheet Set Properties should look like the figure below. Note the different sections of the dialog for Sheet Custom Properties and Sheet Set Custom Properties.

The screenshot shows the 'Sheet Set Properties - CV318-2_Standard' dialog box. It is organized into five main sections, each with a collapse/expand arrow:

- Sheet Set:** Name: CV318-2_Standard; Sheet set data file: C:_CV318-2\CV318-2_Standard.dst (v1.1); Description: Use the New Sheet Set.dst to create a basic new sheet set without subsets, specified tem...; Model view: ; Label block for views: ; Callout blocks: CV318-2_DET_L_REF(C:_CV318-2\CV318-2_CalloutBlocks.dwg); CV318-2_MATCHLINE...; Page setup overrides file:
- Project Control:** Project number: ; Project name: ; Project phase: ; Project milestone:
- Sheet Custom Properties:** CHECKED BY: JLD; DATE (MMM DD,YYYY): DATE; DESIGNED BY: JLD; DRAWN BY: JLD; REVISION01: ; REVISION02: ; REVISION03: ; REVISION04: ; SCALE: 1"=40'
- Sheet Creation:** Sheet storage location: C:_CV318-2; Sheet creation template: ; Prompt for template: Yes
- Sheet Set Custom Properties:** COUNTY.STATE: WAKE COUNTY, NORTH CAROLINA

At the bottom, there are four buttons: 'Edit Custom Properties...', 'OK', 'Cancel', and 'Help'.

Click OK to continue back to the Wizard and then Finish to complete the creation of our standard Sheet Set data file (.dst).

Creating and Managing Your Project Sheet Set

We have now created all the pieces we need to take advantage of the Sheet Set Manager.

Create a new sheet set for your project

To create a new sheet set for your project, follow the same steps as described starting on page 6 of this document. The only differences are that you:

- Use your standard Sheet Set data file (.dst) as the example sheet set
- For the “Store Sheet Set Data File here:” - Select the same project directory where project drawings and other project-related files are stored.
- Complete the entries for your sheet and sheet set properties using your actual project data

Add sheets to your sheet sets

Once you have created and opened a sheet set for your project, Sheet Set Manager needs to know what layouts in what drawing files are part of the sheet set.

If your drawings are open, it’s as simple as dragging a layout into the Sheet Set Manager.

If your drawings are not open, right-click on the sheet set name in Sheet Set Manager and select the option to “Import Layout as Sheet”. Click on the button to “Browse for Drawings”, select one or more drawings that contain layouts belonging to the Sheet Set and then pick “Open”.

As noted in the dialog box, a layout will only be available for import if it has been activated (made current at least once), if it is not associated with another sheet set and if the drawing has been Saved after adding the layout.

Place a check in the box next to each layout to be imported and then pick on “Import Checked”.

You will see the layouts appear as sheets in your current sheet set.



Here’s a Gotcha!

When importing layouts as sheets into your sheet set, Sheet Set Manager will assign the layout name as the default sheet title. Therefore, if a layout contains the “Grading Plan” sheet, rename the layout to “Grading Plan” before importing into the sheet set and the sheet title will be correct.

The sheet title can be easily changed through Sheet Set Manager, but renaming the sheet title will NOT update the associated layout. If you wish them to correspond, it must be done manually after importing.

Re-Order sheets in your sheet set

To re-order the sheets in your sheet set, it's as easy as dragging and dropping the sheets in the correct order.

Re-Name, Number & Re-Number sheets in your sheet set

Sheet Set Manager does not assign sheet numbers to sheets when added to the sheet set. Sheet numbers must be entered manually. To re-name, number or re-number sheets in your sheet set, right click on a sheet and select the "Rename or Renumber" option.

Hint: After renaming or renumbering a sheet, press the Enter key to advance to the next sheet in the set.

Change sheet or sheet set properties

Right-click on the sheet set name and select Properties to make revisions affecting all sheets in the set.

Right-click on a single sheet and select Properties to make revisions affecting that sheet only.

Create a sheet list table

Open your cover sheet or other sheet where you want to insert a sheet list table. Right-click on the name of the sheet set and select the option to "Insert Sheet List Table".

Open a drawing containing a sheet in your sheet set

Open the sheet set in Sheet Set Manager and double-click on the sheet you wish to open.

Remove a sheet from the set

Right-click on the sheet to be removed from the set and select the option to "Remove sheet". This will not affect the drawing file at all, it simply removes the link between that layout and the sheet set.

Publish a sheet set

Right-click on the sheet set and click "Publish". Under the flyout you will find many options to publish one or more sheets at one time, to send to a plotter or DWF file and also whether to publish in reverse order.



Here's a Gotcha!

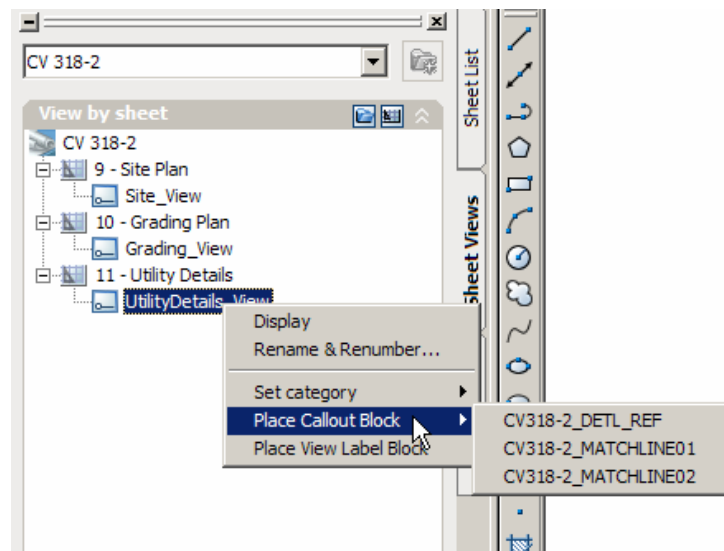
As you're working with Sheet Set Manager, many changes you make will not take effect until you Save the drawing or execute a Regen command. If you do not get the response you're expecting, try to Save and Regen before panic sets in.

Insert a callout block on one sheet referencing another sheet

Because callout blocks refer to other sheets this process requires a couple of extra steps. To allow you to access other sheets, you must create a Named View for each sheet.

For any sheet referencing or referenced by a callout block:

1. Double click on the sheet in Sheet Set Manager to open the layout.
2. Execute the Autocad View command by typing VIEW at the command line.
3. In the View Manager dialog, click on "New".
4. Enter a View Name. For drawings with multiple layouts, each View name must be unique. Example: Grading_View, SitePlan_View, etc.
5. For the View Boundary, it is fine to leave the setting to "Current View" regardless of what the "current view" is. The View does not have to display any particular area in the layout, there only has to be a View created in the layout.
6. After creating a named View for all layouts in the drawing, Save the drawing.
7. In Sheet Set Manager, double-click on the sheet on which you plan to place the callout block. This will open the correct drawing and layout.
8. Along the right side of the Sheet Set Manager, switch to the "Sheet Views" palette. You should see the Named Views associated with each sheet.
9. Right-click on the Named View corresponding to the sheet you want the Callout Block to point to.
10. Select the option to "Place Callout Block" and select the callout block you want to use.
11. Specify the insertion point in the drawing and then press "Enter" to accept the default prompts.




Example as shown above: On your Site Plan, you want a note that states, "See Sheet 11 for Detail". From the Sheet List palette of Sheet Set Manager, open the Site Plan sheet. Then switch to the Sheet Views palette, right-click on the Named View "UtilityDetails_View" and select Place Callout Block.



Here's a Critical Gotcha!

If you are using the "Standard Scale" of the Viewport to show the scale of your drawing in the title block by using an Object Field, you must now re-associate that Field on EACH sheet in order to have the Field actually reflect the Viewport scale.

In the new layout, open the Scale: Field for editing

1. Right-click on the Field and select "Edit Field"
2. In the Field Name: list, select "Object"
3. Pick the "Select Object" icon next to "Object Type" 
4. Select the Viewport that the Field is to associate with.
5. In the list of Properties:, select "Standard Scale"
6. Pick on OK to close.

Tips, Tricks and Additional Resources

Tips & Tricks

1. Lee Ambrosius has posted a file with instructions that you can download and use to create a custom sheet set property for the Total Number of Sheets.

His website is: http://www.hyperpics.com/customization/vb_vba/vba_downloads.asp

R2007 <i>SheetCount17.zip</i> (8KB) Last updated on: 8/15/06	SheetCount - This example is used to demonstrate how to create a custom sheet set property that holds the total number of sheets for all the sheets in the sheet set file.
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2. Did you know that Attributes now have a "Multi-line" property? It was added in 2008.
3. From [AUGI TIPniques: AutoCAD 2008 Odds & Ends - July 2007](#)
 - CTRL + drag and drop a layout to make a copy
 - Drag to reorder layouts
 - CTRL + shift to copy multiple layouts
 - Double-click to rename
 - Drag and drop layout to Sheet Set Manager to add to Sheet Set
4. To control how and when your Fields are updated, use the FIELDEVAL environment variable. The FIELDEVAL environment variable has the following setting options: Not updated, Updated on open, Updated on save, Updated on plot, Updated on use of ETRANSMIT and/or Updated on regeneration.
5. The PUBLISHCOLLATE system variable controls whether PDFs are published as a single job or multiple, individual files.