



AUTODESK UNIVERSITY 2015

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Step out of the Past and into the Future with Sheet Set Manager

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Learning Objectives

- Learn how to differentiate between the standard DWG™ method and the Sheet Set Manager DWG method
- Learn how to invert current borders, callouts, and page layouts for use with Sheet Set Manager
- Learn how to set up and use AutoCAD software's Sheet Set Manager
- Learn how to save hours of time by having AutoCAD software automate the page layout process
- Learn how to decrease overall drawing-file size through the use of Sheet Set Manager

Description

Learn how to use AutoCAD software Sheet Set Manager to manage and automate your page layouts and callouts. There is no longer any need to manually control border information, page numbers, section/detail callouts, or other repetitive information. This class will explain Sheet Set Manager from setup to implementation-knowledge that will greatly increase your project efficiency and accuracy.

Your AU Experts

Adam is the owner and CAD manager of Dirig Design, Inc., which provides technical drawings for architectural millwork shops across the United States. Adam an AutoCAD Certified Professional, has been using AutoCAD software since 2003. He holds a degree in woodworking and cabinetry, and began his career as a cabinetmaker. He later transitioned to CAD designer and computer numerical control (CNC) programmer/operator before starting Dirig Design in 2009. He enjoys learning new technologies and strongly believes that using the most up-to-date software to its greatest potential can lead to increasingly streamlined workflow as well as growth for his business and the businesses of those he serves. Additionally, as a subcontractor for multiple customers, he has seen a wide variety of drawing methods and has gleaned from their successes or failures in order to improve his own techniques. He enjoys teaching and will provide clear, practical knowledge of AutoCAD software's lesser-known features that can greatly benefit the everyday user.

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Learn to differentiate between the standard DWG method and the Sheet Set Manager DWG method.

STANDARD DWG METHOD

Snapshot of the standard DWG method:

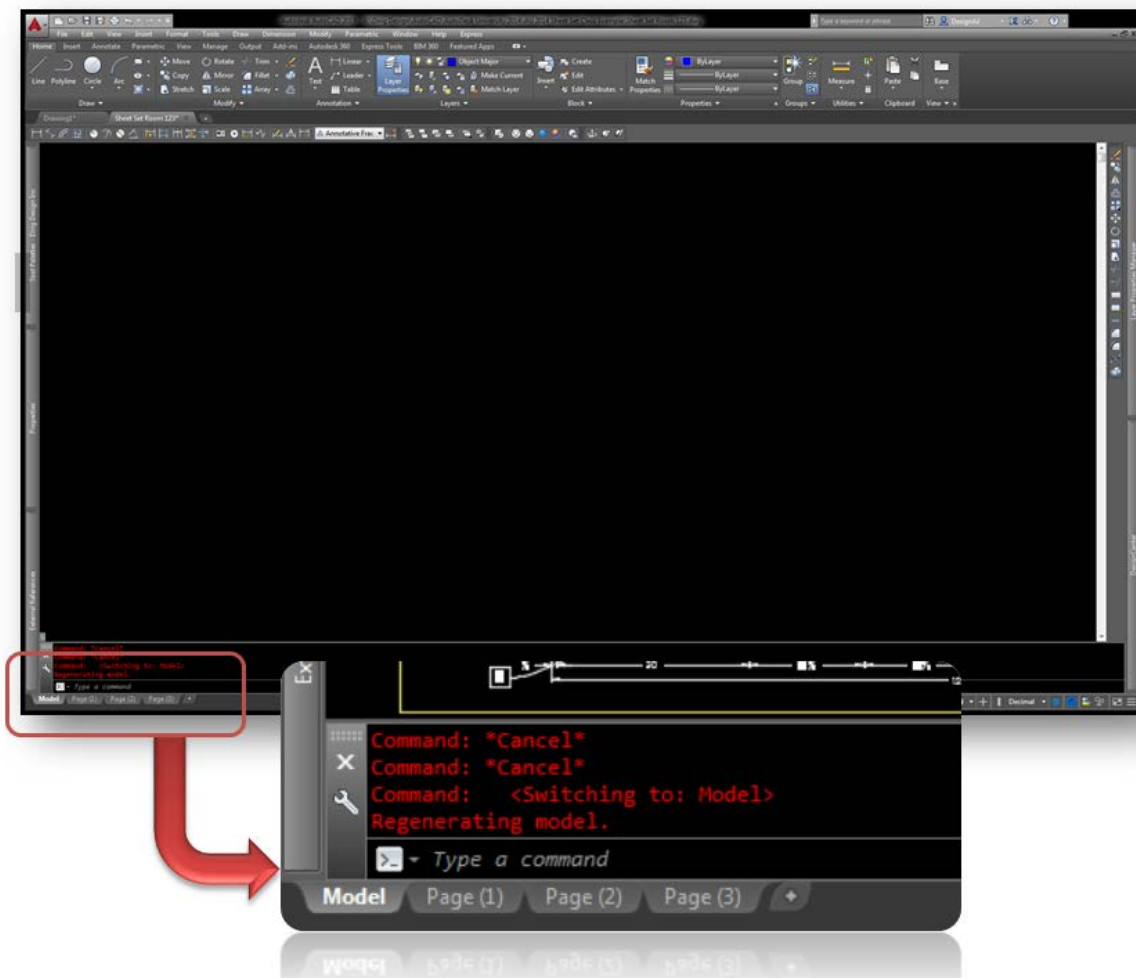


FIGURE 1: STANDARD DWG METHOD.

Model Space: Drawing geometry is created and dimensioned in model space.

Page (1)-(3): Viewports are made which refer to created model space geometry.

In the standard drawing setup, model space geometry is in the same DWG file as the paper space viewports. All callouts and references are based in the DWG file as well. This is usually fine in smaller projects; however, the larger the project, the more complicated this standard DWG method becomes. Below is a list of the issues faced when using this method:

1. Only one person at a time can open the DWG file and edit.
2. If the size of the project is large, so is the size of the file, which makes it much harder and longer to edit.
3. Callouts, view labels, section symbols, elevation symbols, etc. are manually entered and revised, increasing the possibility of mistakes.
4. Each viewport requires scaling and view placement.
5. Each paper space layout requires manual information that can get tedious when revising and creating.

SHEET SET MANAGER DWG METHOD

Using SSM the first part of the DWG setup remains much the same. All the geometry is created and dimensioned within model space; however, paper space, view labels, section symbols, pages information, project information, view placement, and view scaling is all handled by the SSM features and database. SSM uses **Fields, Views, and X-references** to accomplish this and allows for multiple people to access and edit the same project while maintaining small and easy to navigate DWG files.

AutoCAD **Fields** are information (data) that is stored within the DWG file or from an external data file (like SSM's **dst** files). These fields are very versatile and are able to be edited with ease. Editing one will change all instances of that field (similar to blocks), but can be used across multiple DWG files.

Fields (FIELD command)

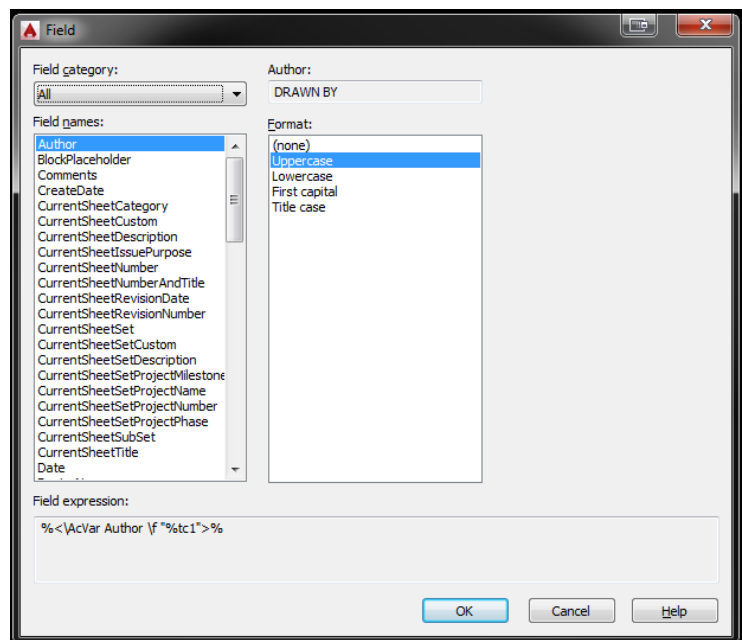


FIGURE 2: FIELD DISPLAY DIALOG BOX.

Views (VIEW command)

AutoCAD Views are either preset views (top, bottom, left, right, etc.) standard in all DWG files or can be customized in each individual DWG file.

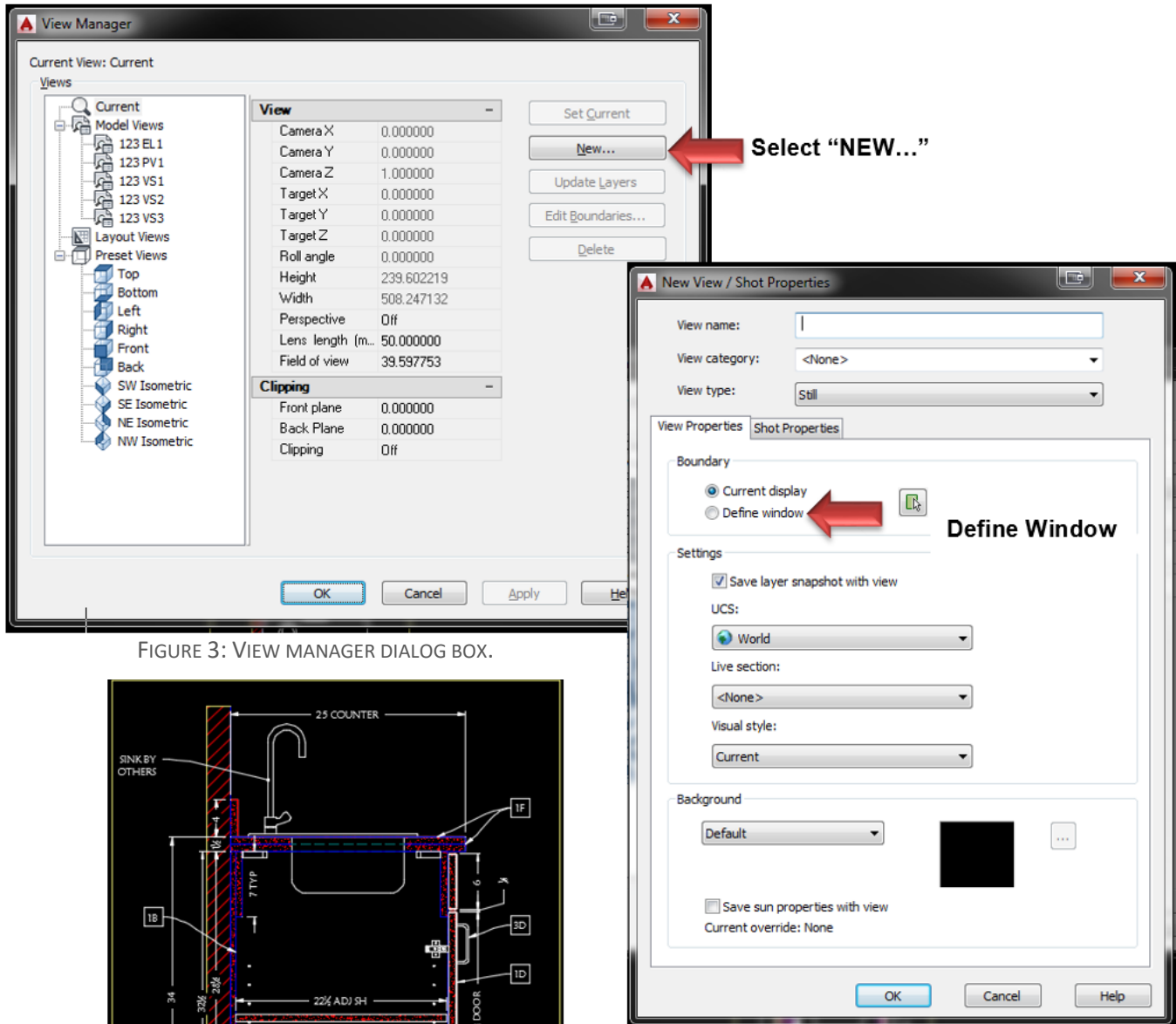


FIGURE 3: VIEW MANAGER DIALOG BOX.

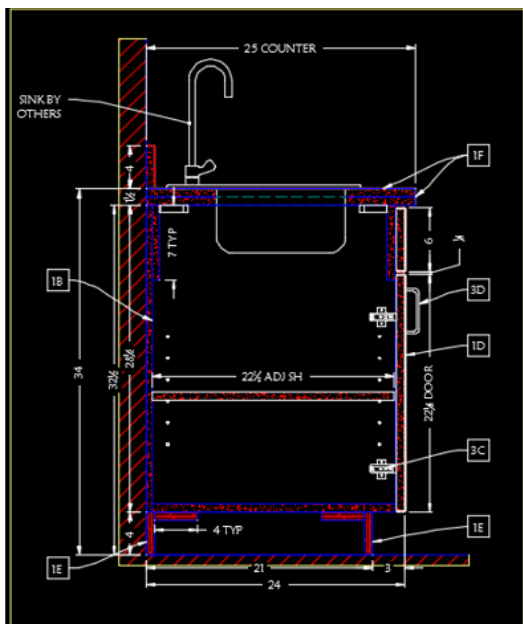


FIGURE 4: WINDOW VIEW AROUND VS1 (VERTICAL SECTION 1)



(XREF command)

X-References are DWG files that are referenced within another DWG file. Simply put, it is a drawing inside a drawing.

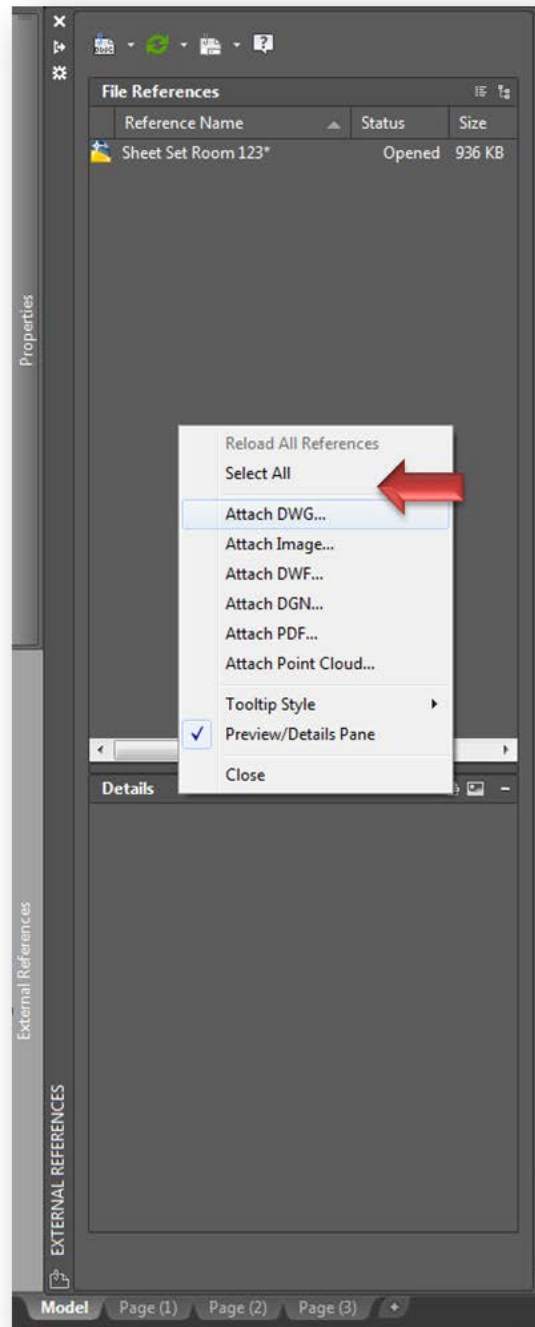


FIGURE 6: RIGHT CLICK INSIDE THE EXTERNAL REFERENCES PALETTE AND SELECT "ATTACH DWG..." LOCATE THE APPROPRIATE DWG FILE AND SELECT "OK".



Learn how to convert current borders, callouts, and page layouts for use with Sheet Set Manager

SSM INITIAL DWT SETUP

The first thing you need when setting up a new Sheet Set is the Sheet Set Manager palettes. To access this palette type, "SHEETSET" or select the View ribbon tab and "Sheet Set Manager". Before "New Sheet Set..." is selected, there are a few things that need to be created:

- A DWT file with desired border setup in paperspace. (Plus any applicable files: border jpg's, x-ref's, or other).

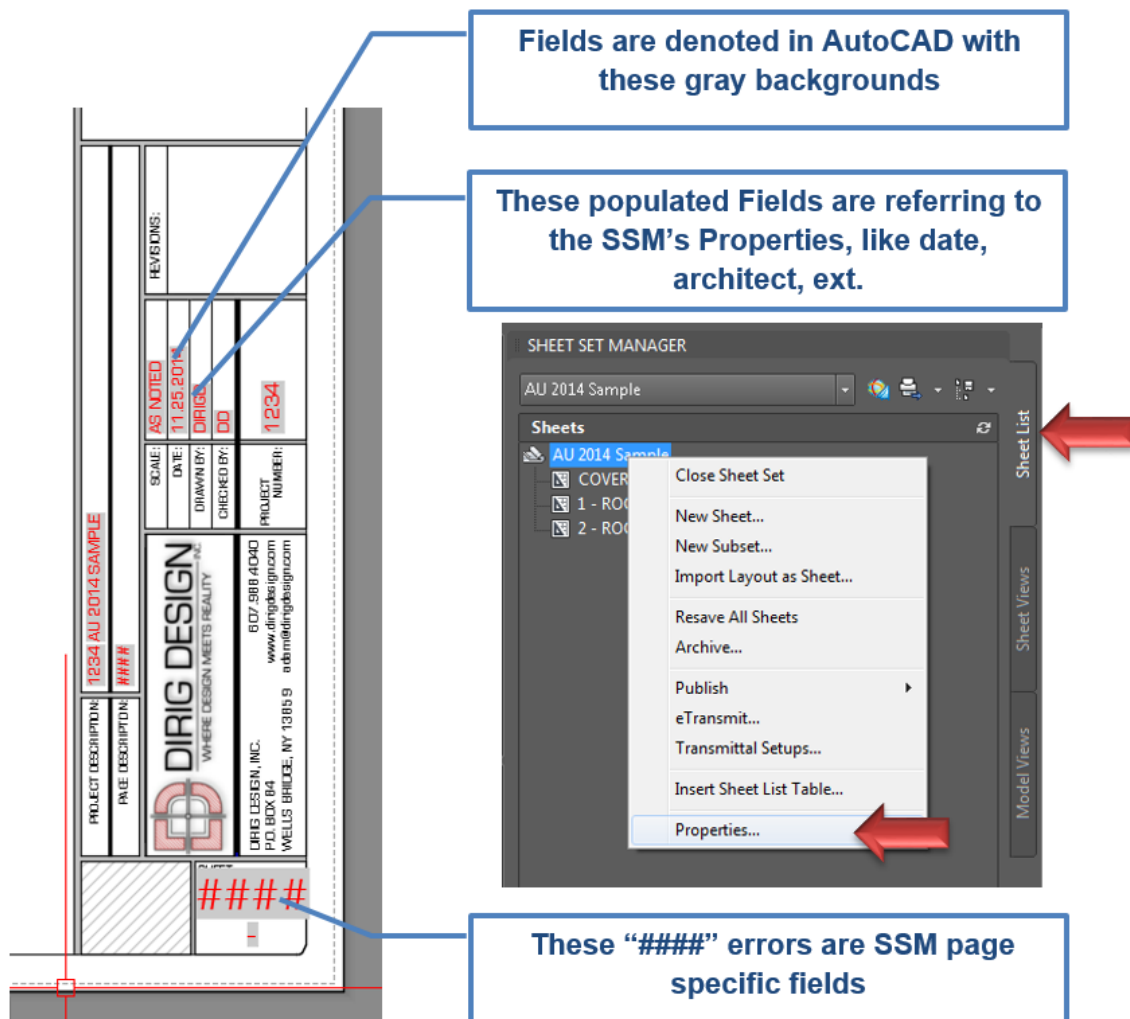


FIGURE 7: PAGE BORDER SETUP. THIS BORDER IS A BLOCK ALL THE READABLE TEXT ARE ATTRIBUTE DEFINITIONS WITHIN THE BORDER BLOCK. THE "####" INFORMATION IS A SEPARATE BLOCK PER PAGE. THESE FIELDS HAVE THE AUTOMATED SHEET SET MANAGER FIELDS FOR POPULATING PAGE SPECIFIC INFORMATION (I.E. PAGE NUMBER, PAGE DESCRIPTION).



- DWT file of callout blocks, section symbols, ext. (see figure 8)

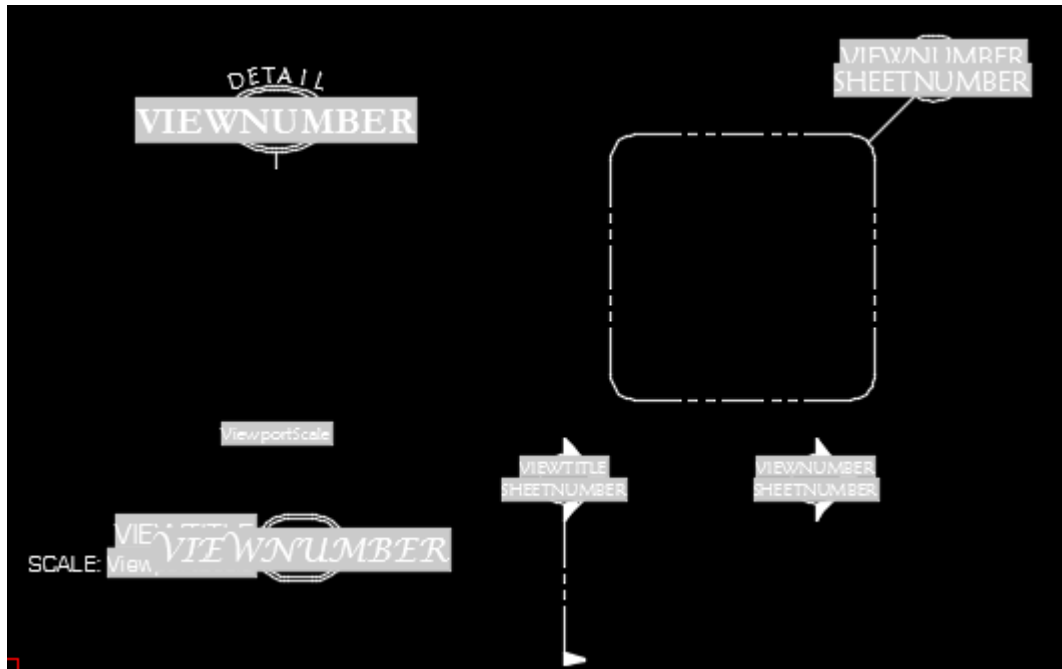
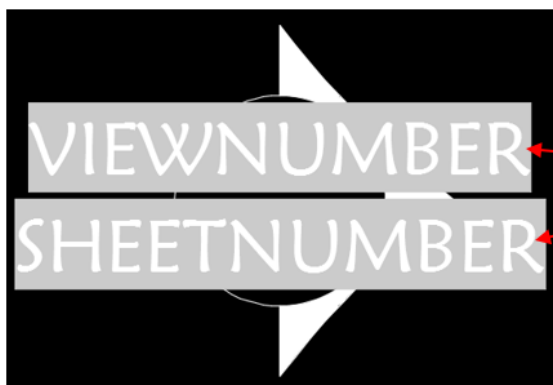


FIGURE 8: THESE VIEW LABEL AND CALLOUT BLOCKS ARE SAVED IN A SEPARATE DWT FILE. THEY ARE SAVED AT FULL SCALE FOR PAPERSPACE (I.E. TEXT HEIGHT IS 3/32").



These callout blocks have been setup to automated view number and sheet number Sheet Set Fields.

FIGURE 9: CALLOUT DEFINED.

Learn how to set up and use AutoCAD software's Sheet Set Manager

NEW SHEET SET WALK-THROUGH

Now that these DWT files are setup. Let's start the SSM setup process by selecting "New Sheet Set..." in the SSM side bar, and follow the steps laid out below.

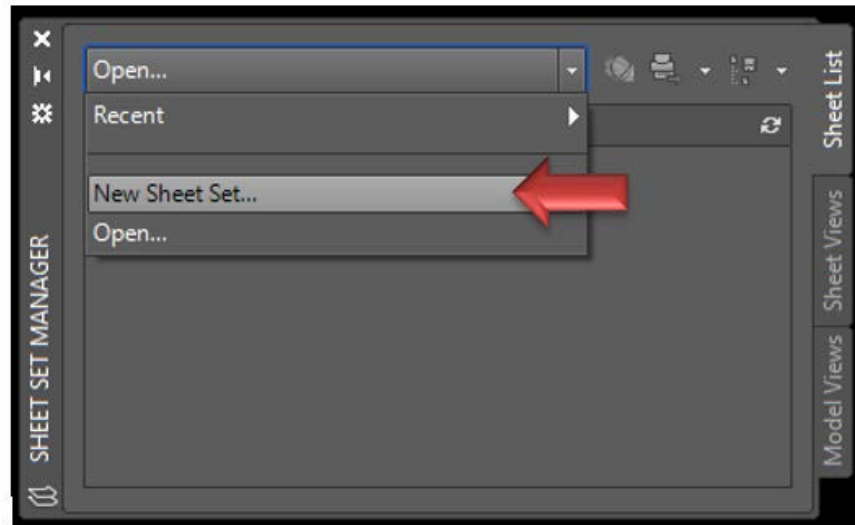


FIGURE 10: SSM PALETTE.

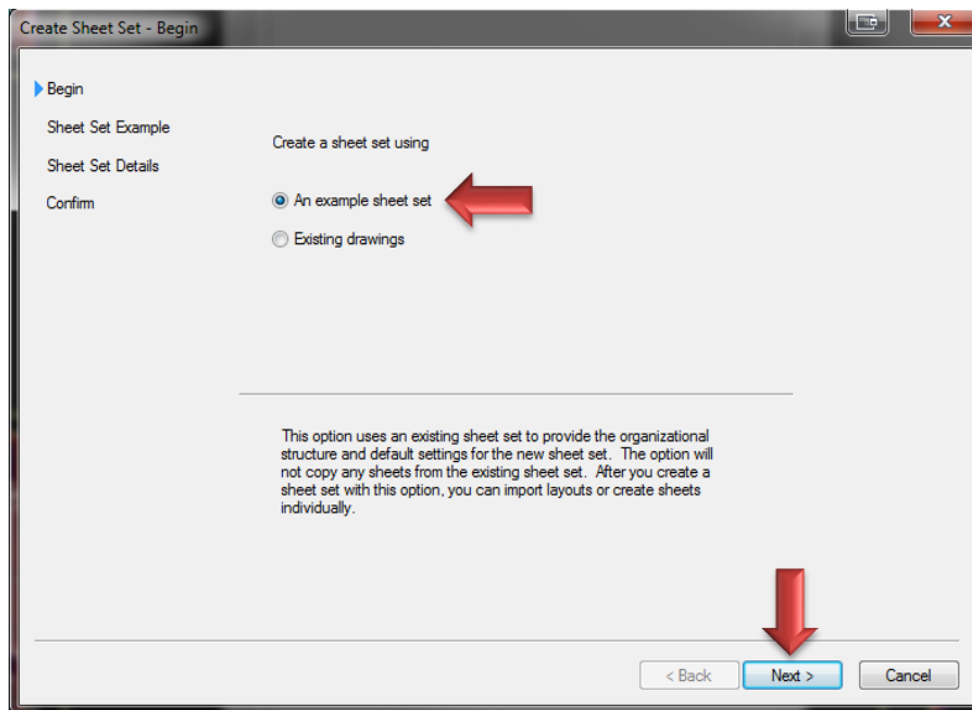


FIGURE 11: SSM INITIAL SETUP "BEGIN"

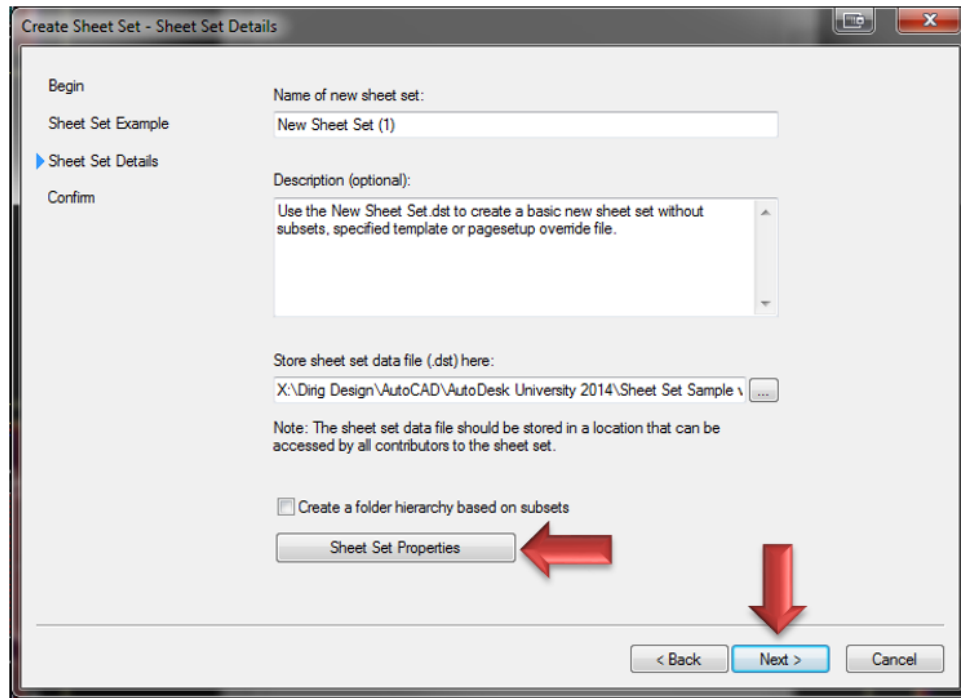


FIGURE 12: SSM INITIAL SETUP "SHEET SET EXAMPLE"

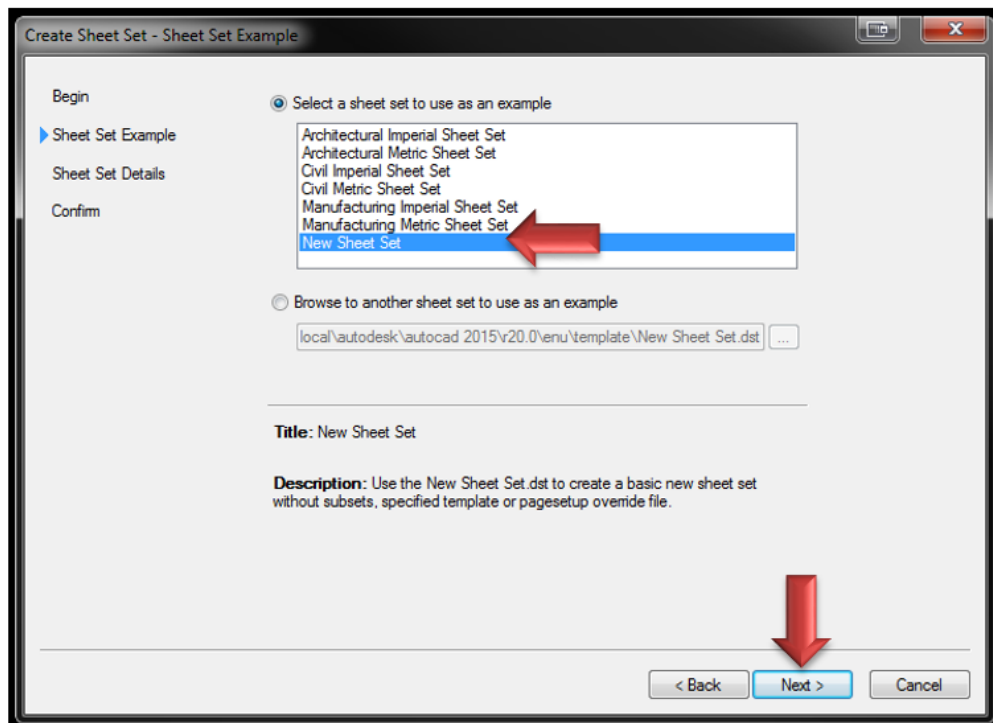


FIGURE 13: SSM INITIAL SETUP "SHEET SET DETAILS"

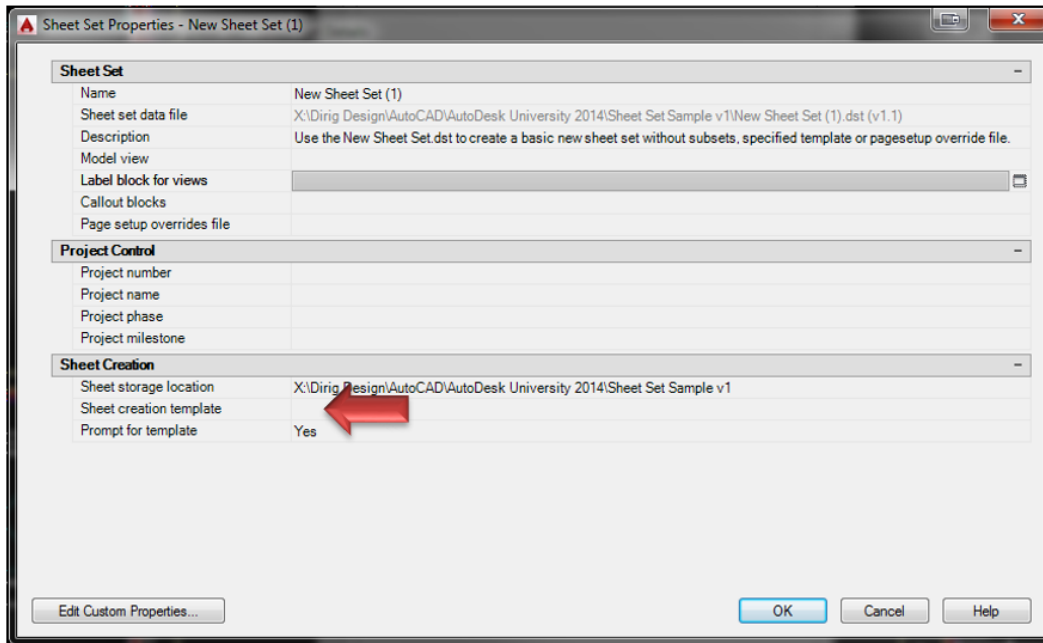


FIGURE 14: "SHEET SET PROPERTIES" IS THE DATABASE WHERE MOST OF THE PROJECT INFORMATION IS STORED. WE WILL GO OVER THIS IN DETAIL LATER. I JUST WANT TO SPECIFY THE "SHEET CREATION TEMPLATE" FOR THIS

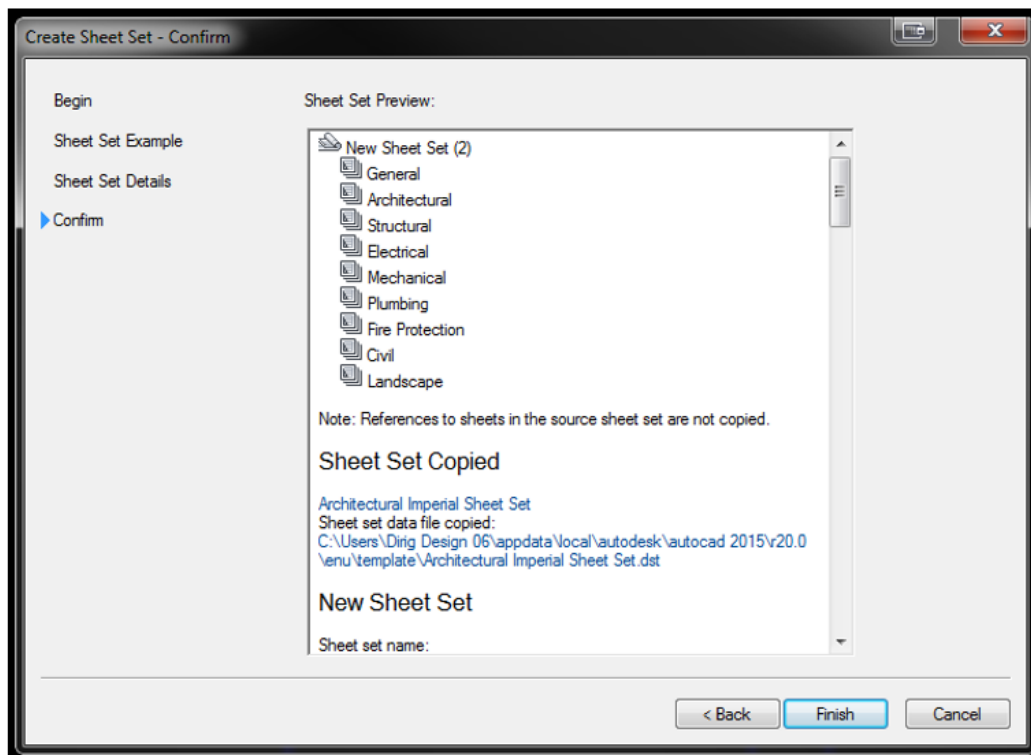


FIGURE 15: SSM INITIAL SETUP "CONFIRM" SELECT FINISH TO CONFIRM.

The Sheet Set DST file has been created, and has been opened in the SSM side bar menu.

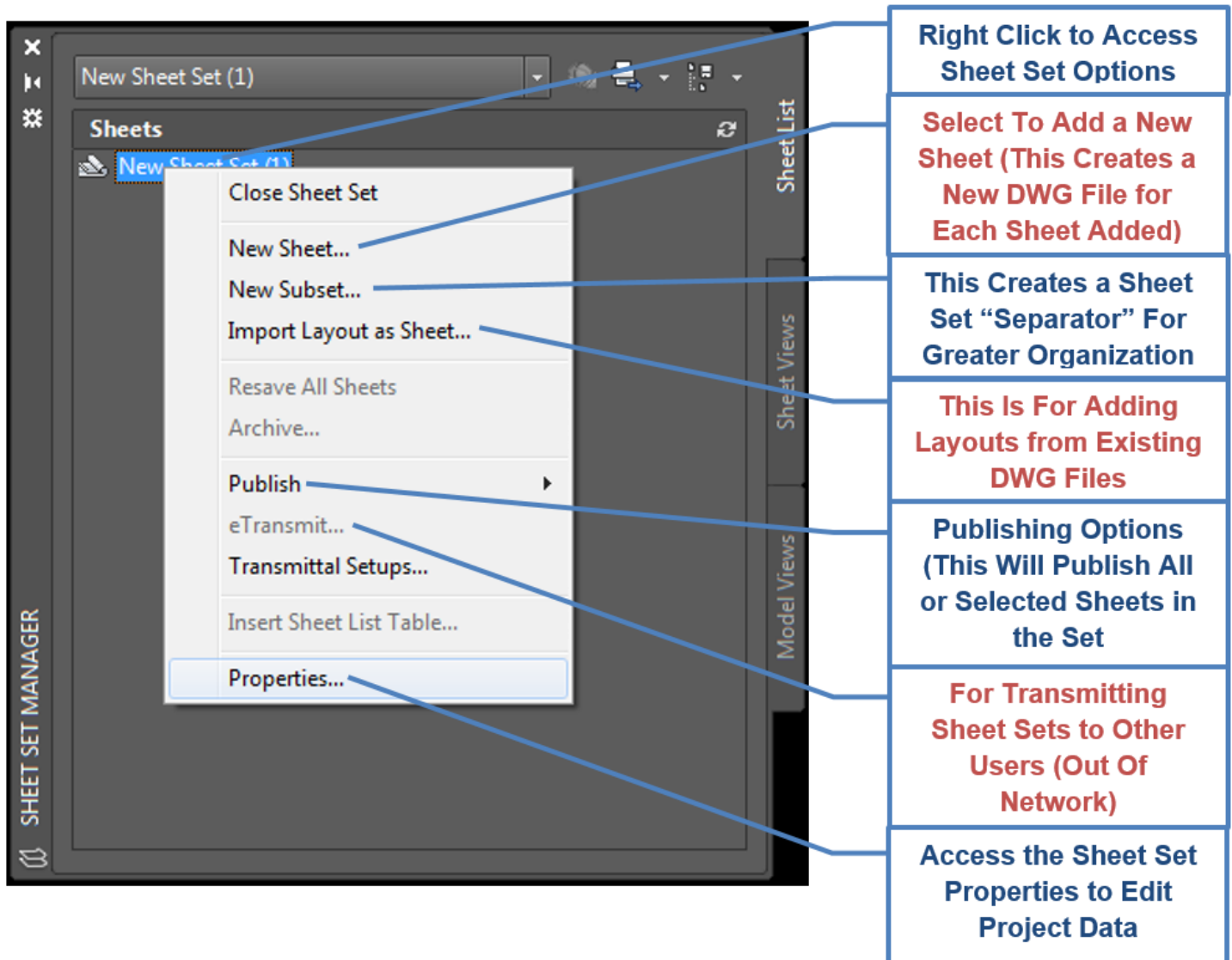


FIGURE 16: SSM RIGHT CLICK MENU BREAKDOWN.

SHEET SET DWG SETUP

For the Standard DWG setup, model space geometry is created and then viewported in paperspace (within the same DWG file) as described above.

For Sheet Set DWG setup, model space geometry is created and dimensioned, but instead of viewporting it in paperspace of the same DWG file, only views are created (making sure the annotative scale is set to the desired scale). (See figure 2 for view setup)

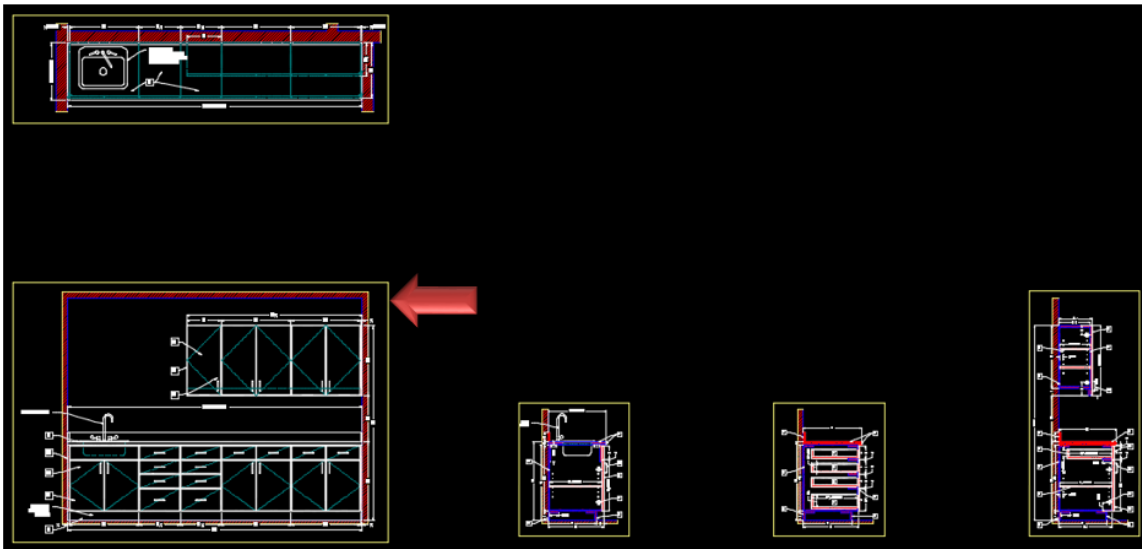


FIGURE 17: NOTE AREAS WITH YELLOW RECTANGLE DENOTING THE AREAS THAT HAVE BEEN VIEWED

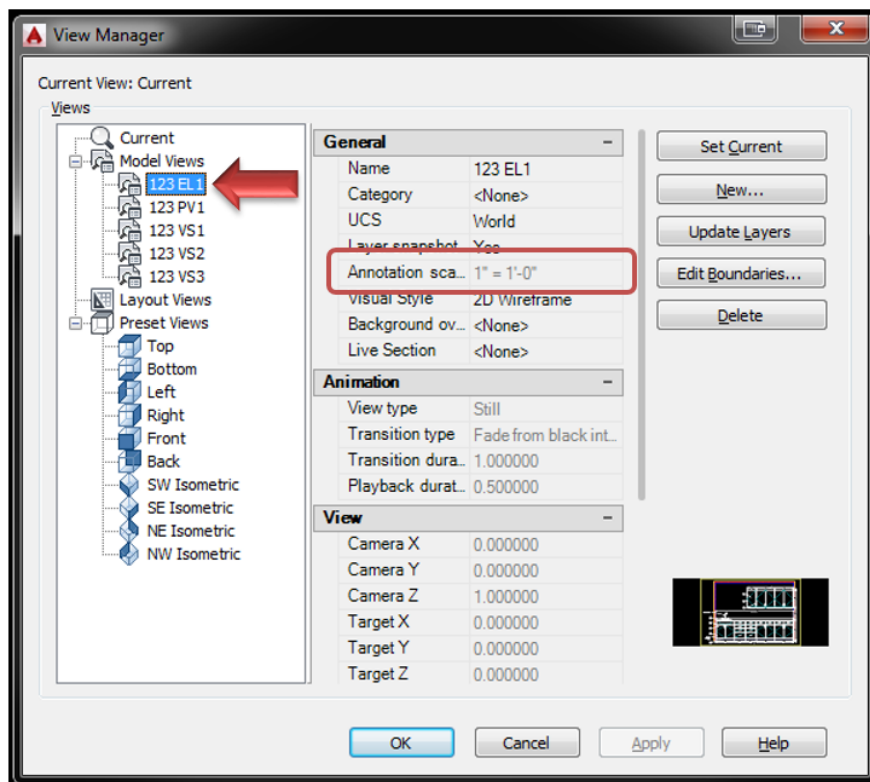


FIGURE 18: VIEW DIALOG BOX SHOWING CREATED VIEWS AND ANNOTATIVE SCALE ASSIGNED TO VIEW.

Learn how to save hours of time by letting AutoCAD software automate the page layout process

Now that we have a DWG with views, let's go back to the sheet set manager and see how it automates the page layout process. The SSM Palette is divided into three tabs:

- **Sheet List:** The tab with all the "sheets"; also shows numbers and descriptions
- **Sheet View:** The individual views per sheet (these will be edited later)
- **Model Views:** Shows the model space views setup in previous steps

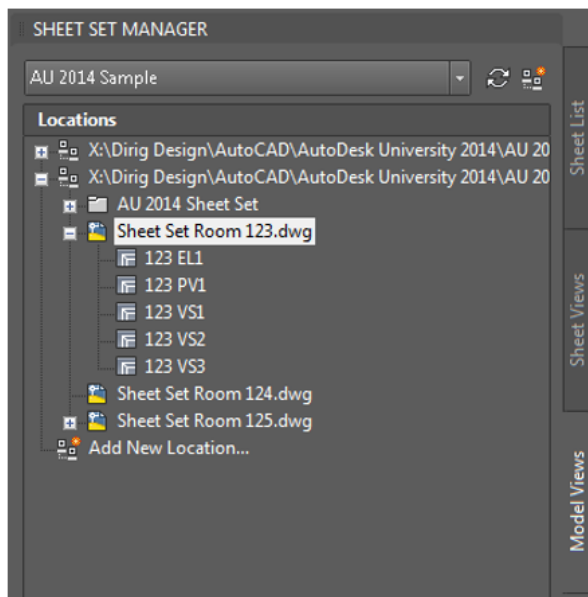
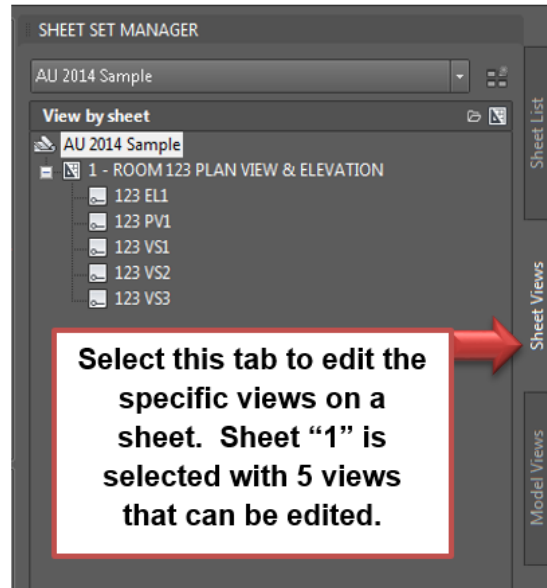
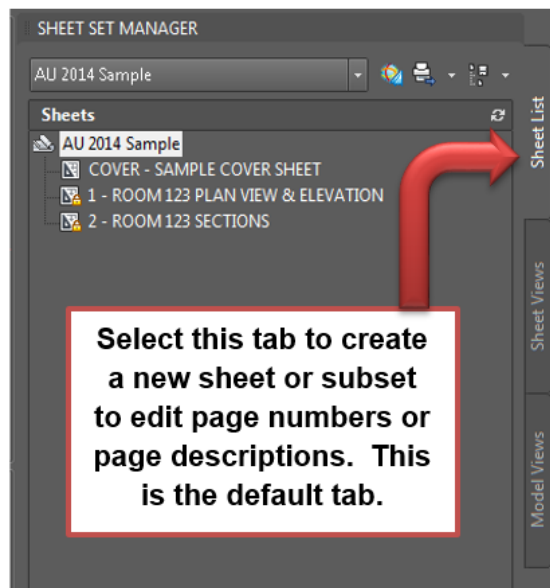


FIGURE 19: SSM SIDE TAB BREAKDOWN.

LAYING OUT THE SHEET

1. Create a sheet in “Sheet List” tab. Right Click on the “AU 2014 Sample” and select “New Sheet”

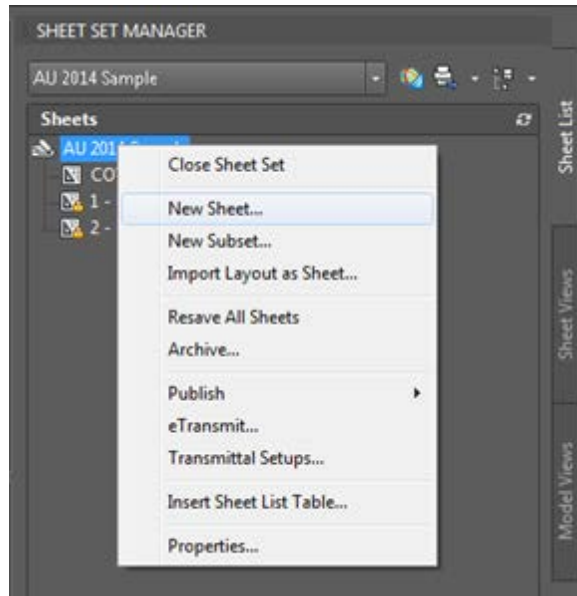


FIGURE 20: SSM CREATING A “NEW SHEET”

2. Once the new sheet is created go to the “Model Views” tab and select the desired DWG file.

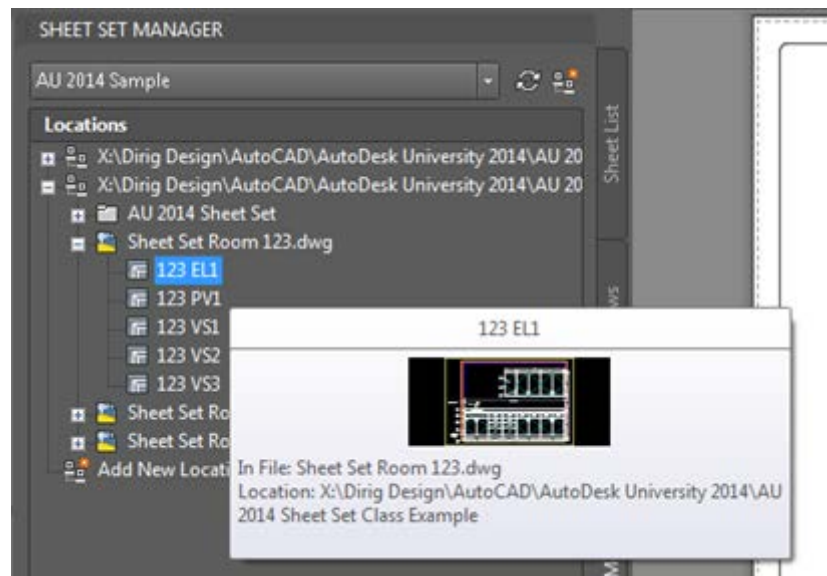


FIGURE 21: SSM ADDING VIEWS TO THE NEW SHEET FROM THE “MODEL VIEWS” TAB

3. Drag and Drop Views from the “Model Views” tab and place on paperspace.

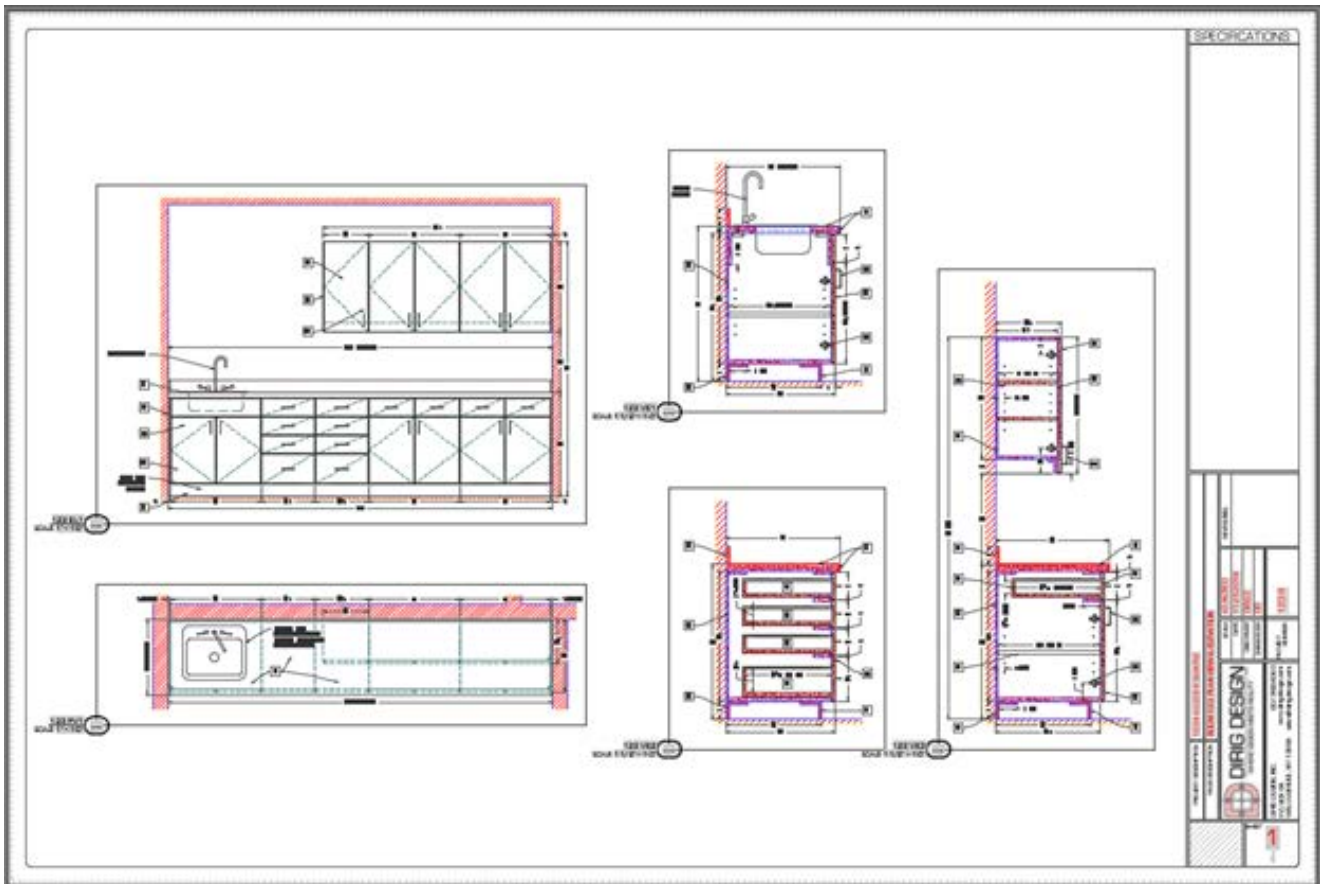


FIGURE 22: NEW SHEET AFTER MODEL VIEWS ADDED

4. Edit the view names and descriptions from the “Sheet Views” table

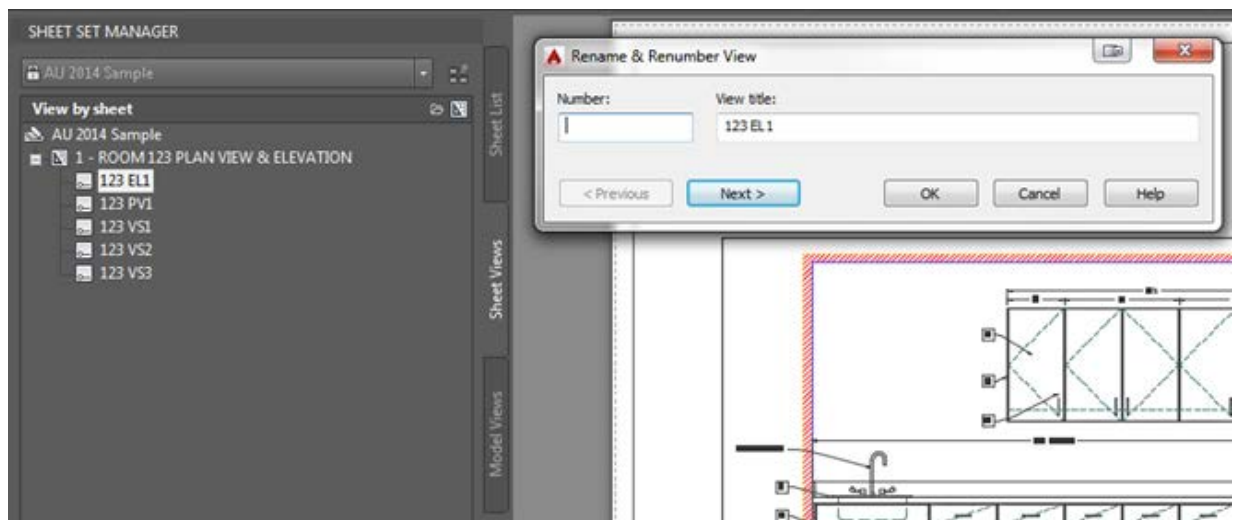


FIGURE 23: THE “SHEET VIEWS” TAB NOW HAS VIEWS THAT WERE PLACED ON THE NEW SHEET

5. Drop the section and elevation callouts.

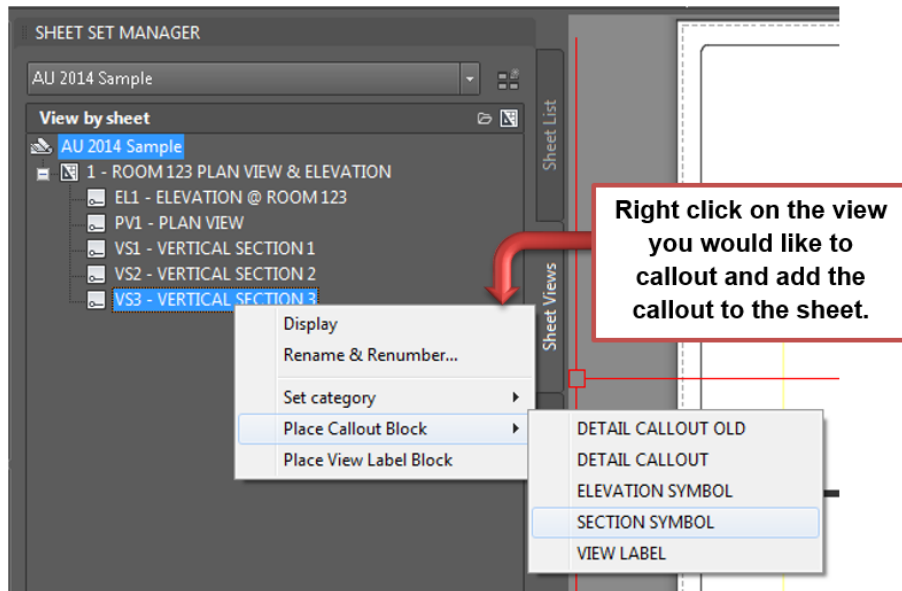


FIGURE 24: ADDING VIEW LABELS

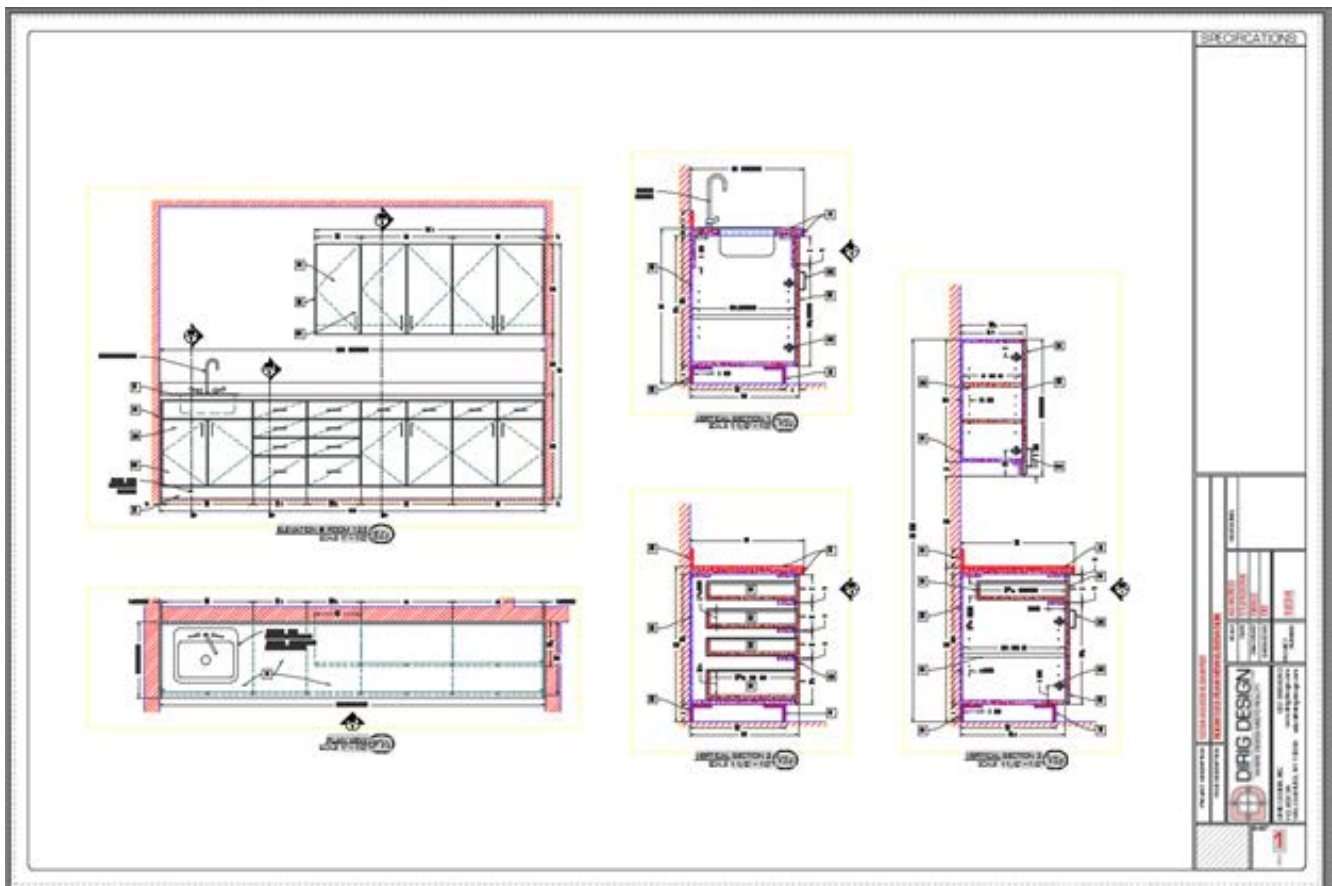


FIGURE 25: FINISHED SHEET

Learn how to decrease overall drawing-file size through the use of Sheet Set Manager

FOLDER STRUCTURE

Sheet Set Manager gives the ability to separate whatever you need into individual DWG files (Rooms, Floors, etc.) while still being able to be a part of the sheet set and be published together. Smaller files equal faster work; faster work equals more profit. AutoCAD's Sheet Set Manager has changed the way my business works. It has decreased time in revision work and time editing drawings. Below is a simple folder structure for SSM that has worked very well for my business and I hope it can help yours.

Project Folder is the Working Folder

Sheet Set Folder is the SSM Folder

Other Folders are for the page border setup

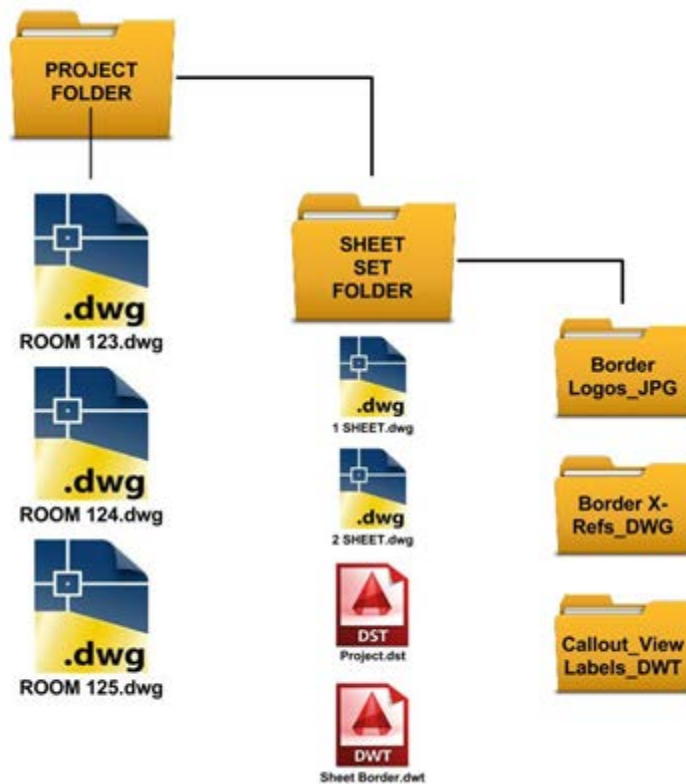


FIGURE 26: EXAMPLE OF FOLDER STRUCTURE.

Thank You for attending my class. I hope you found it informative!