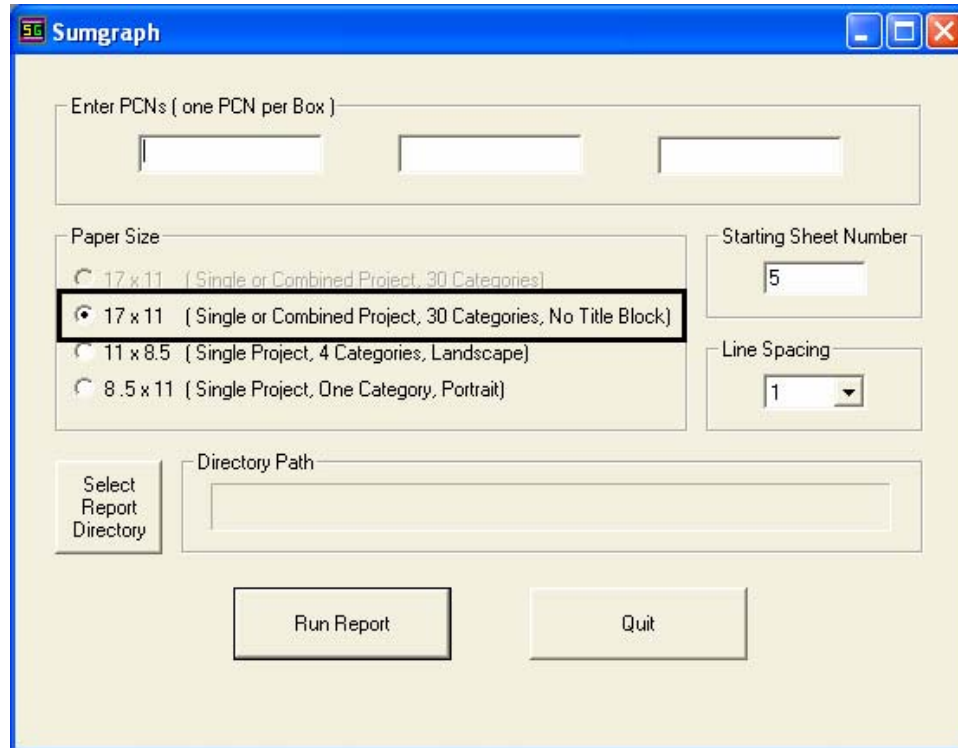


This document guides you through opening the Summary of Approximate Quantities Sheet created within your project folder and attaching the DXF files created from the Sumgraph software, through the use of MicroStation Reference file tools. Upon completion of the following procedures, the Sumgraph sheets can be plotted with the CDOT Batch Printing Process.

Summary of Approximate Quantities (SAQ) Sheets Creation

Saving the SAQ Sheets

1. Generate your SAQ Sheets through the Sumgraph program. Ensure that the Directory Path for the DXF files is set to the Project Specific Design\Drawings\Reference_Files folder. The MicroStation levels have been adjusted in Sumgraph to accommodate the latest CDOT configuration. The following Menu has been modified. The default selection is shown below:



The screenshot shows the Sumgraph application window with the following configuration options:

- Enter PCNs (one PCN per Box)**: Three empty text input fields.
- Paper Size**: A list of radio button options:
 - 17 x 11 (Single or Combined Project, 30 Categories)
 - 17 x 11 (Single or Combined Project, 30 Categories, No Title Block)
 - 11 x 8.5 (Single Project, 4 Categories, Landscape)
 - 8.5 x 11 (Single Project, One Category, Portrait)
- Starting Sheet Number**: A text input field containing the value 5.
- Line Spacing**: A dropdown menu set to 1.
- Select Report Directory**: A button next to a text input field for the Directory Path.
- Run Report** and **Quit**: Two buttons at the bottom of the window.

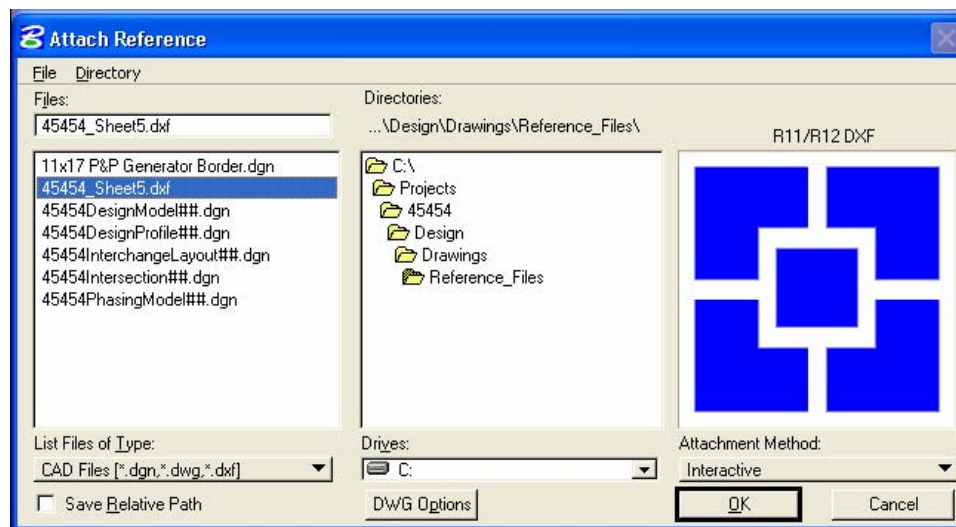
Note: The designer no longer has the option to select the Sumgraph sheet creation that includes an 17x11 border. The only method available is the No Title Block option.

Creating the MicroStation Sheet Files

- The Drawing Sheet File to be used is located in the Project Directory Structure under the **Design\Drawings** Folder called **45454DES_SAQ##.dgn**. The Project Creation Utility has replaced the JPC# portion of the file name with the unique Project Code, in this example shown as 45454. The file can be renamed to **45454DES_SAQ01.dgn**, replacing the ## with a sheet number value. The *Windows Explorer Copy & Rename* can also be used in order to preserve the original drawing file, if desired.

Note: It is an acceptable procedure to place all your SAQ sheets within one file if desired, but this exercise will only cover the placement of one SAQ sheet per Drawing file.

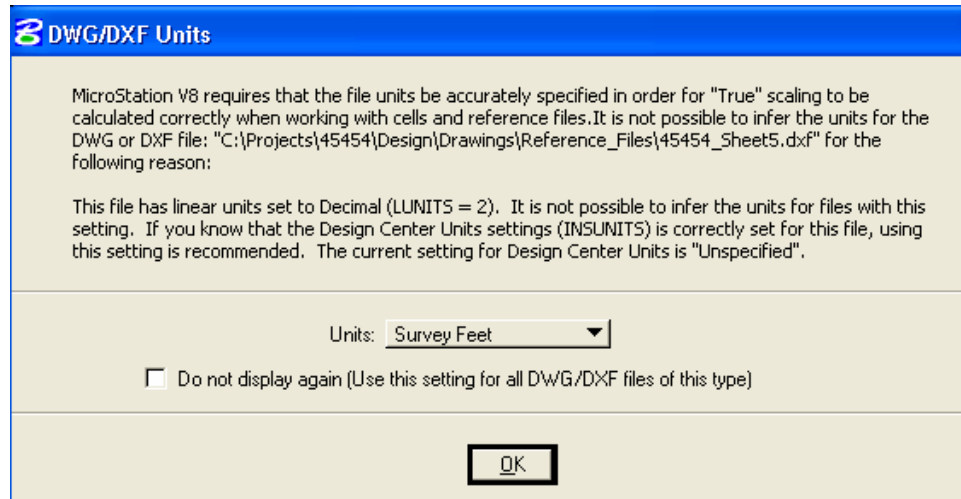
- Open the **45454DES_SAQ01.dgn**. Notice that the Border Cell has already been placed within the file. The cell should not need to be relocated or scaled, as it has been positioned at the correct coordinates and scaled appropriately to accommodate the Sumgraph DXF reference file attachment. For information, the drawing has been scaled to 1"=200' and the coordinates for the lower left hand corner of the border read X=43.50, Y=-1.00, Z=0.
- From the MicroStation Main Menu, select **File > Reference** to open the **Attach Reference** dialog box. Navigate to the Project Specific **Design\Drawings\Reference_Files** folder and select the Sumgraph DXF from the **Files** list. It may be necessary to manually move the desired files to this location, prior to attachment, if the sheets were not placed in this folder in step 1 above. <D> **OK** to proceed.



Note: If the DXF file does not show up in the list, it may be necessary to change the **List Files of Type** to show CAD Files (*.dgn, *.dwg, *.dxf). After making the change, the list should contain the desired file.

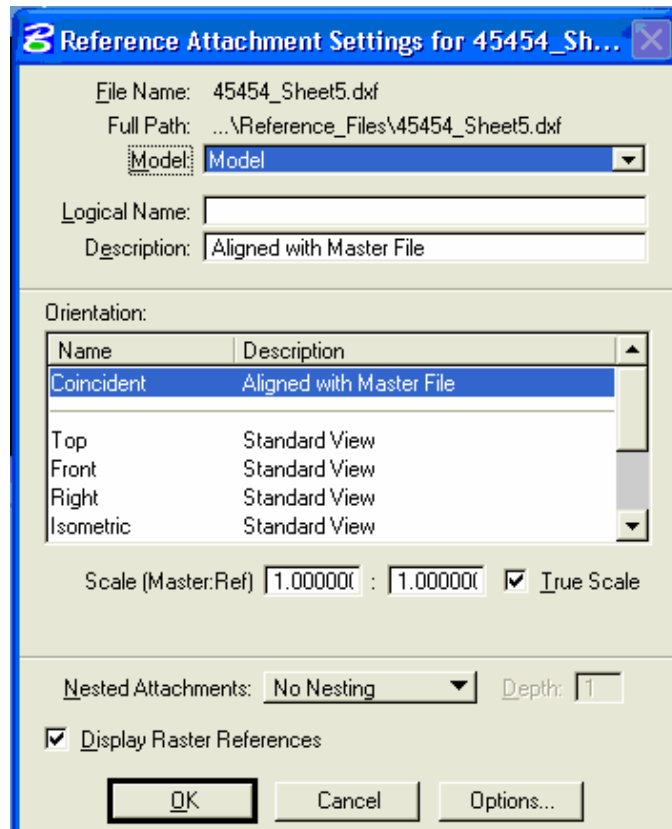
CDOT SAQ Sheets

- The DWG/DXF Units Dialog box will now appear. The units should be set by default to Survey Feet. Accept this setting by <D> OK.



Note: Do not check the "Do not Display again" settings box, as this reminder is necessary for all DWG/DXF attachments and may vary on occasion.

- The Reference Attachment Settings dialog box will appear. All the default settings on this dialog box can be accepted. <D> OK to proceed.



CDOT SAQ Sheets

7. The Sumgraph DXF sheet will now be attached as a reference file in the correct location for printing. Place the appropriate Resident Engineer Identification cell and update any other Titleblock information desired. The CDOT Titleblock can be updated with the **Edit Text** command.
8. After the initial sheet has been created, each consecutive sheet can be copied and renamed using the Windows Explorer or through the **File > Save As** command in MicroStation. The reference file attachment will need to be updated for each sheet. Select **File > Reference** to open the **References** dialog box, Double click on the attached Reference file to display the **Attachment Settings** dialog box. Navigate to the desired location, select the desired sheet and <D> **OK** twice. The Sheet file will now contain the correct Sumgraph DXF sheet.
9. After creating the desired SAQ sheets, proceed with the **CDOT Batch Printing Process**. Instructions for batch printing can be found on the start > **All Programs > _CDOT_CADD_Information > Workflows > CDOT Batch Printing** or on the **CDOT Menu** under **Help > Workflows**.
10. The Sumgraph program may need to be re-run during the course of the Design Project so that SAQ DXF Sheets are updated with revised information. Make sure to maintain the identical naming convention for the DXF files that are updated and save the files to the correct folder in the Project directory structure and proceed with CDOT Batch Printing.