

Iowa Department of Transportation Office of Design

## 21A-80

## MicroStation Batch Print Shape Placement

Design Manual Chapter 21 Automation Tools Instructions Originally Issued: 12-31-08 Revised: 05-29-09

This tool can be accessed from the <u>Geopak</u>: D&C Manager, as shown at the right.

If the item is not found as shown, use the *D&C* > *Edit* > *Find* tool to locate it.)

Simply stated, the <u>MicroStation</u> **Batch Print Shape Placement** tool places "plot shapes" around selected sheet borders in the Working model of a "sheet file". These "plot shapes" have specific element attributes which are used by the <u>MicroStation</u> **Batch Print** process to locate and print the correct sheets.



The <u>MicroStation</u> **Batch Print** tool searches the file(s) for specific "Print Boundary" attributes to determine what area(s) to print. The boundary, as defined by the **Batch Print** program,

- can be either single or multiple,
- can be a cell, shape, view, or more,
- can be any color, level, style, and/or weight, and
- can be either referenced or active, as shown in the dialog below.

dsnShtPlotShapeBatchPrint Properties			
Reference View	<u>D</u> K Cancel		
Print Boundary Method Shape	Search Files ✓ <u>M</u> aster File		
Levet: dsnShtPlotShapeBatck	<u>R</u> eferences		
<u>Style:</u> <u>W</u> eight:			
Process Multiple Boundary Elements			

## Files containing a Working Model and Multiple Sheets within that model

Plot shapes, (which were specifically designed for MicroStation Batch Print), exist around all sheets in the 100-sheet border file, and are on the non-printable level dsnShtPlotShapeMultiColor. (The "100-sheet file" concept pertains to file types A, B, C, G, T, U, and possibly others.) Running the **Batch Print Shape Placement** program copies the selected plot border shapes and numbers from the referenced dsnShtPlotShapeMultiColor level to another non-printable active level, dsnShtPlotShapeBatchPrint, then turns off the "…MultiColor" level.

Each sheet in the "100-sheet-border reference file" contains a dashed, colored plot border and also a large number corresponding to the respective sheet location and placement order, (and possibly corresponds to the sheet number). The color for both the dashed plot borders and large sheet position numbers corresponds to the sheet location, such as color 1 for sheet 1, color 2 for sheet 2, etc., as shown below.



When the Batch Print Shape Placement tool is accessed, the following **Select Sheets** dialog is displayed.

The tabs near the bottom of the dialog can be used to help select the sheets to be printed, or a combination of *Ctrl-Click* and/or *Shift-Click* selection commands can be used to create the sheet list.

Select Sheets			
	3 4 5 6 7		
Se	lect Even Cance	Select All	Select Odd

Before using the **Batch Print Shape Placement** tool, the working model may look something like shown below, with the plot borders being dashed and multi-colored, as located by the arrow.



After selecting the sheets in the **Select Sheets** dialog, click the **OK** button. As stated earlier, running the **Batch Print Shape Placement** program copies the selected plot border shapes and location numbers from the non-printable referenced level dsnShtPlotShapeMultiColor to the non-printable active level dsnShtPlotShapeBatchPrint The "...MultiColor" level will be turned off, and the new "...BatchPrint" level, (with the copied borders and numbers), will be turned on, as shown below. The newly copied borders and numbers, (placed on the "...Batch Print" level), are now a solid blue color rather than dashed and multi-colored.



**NOTE:** Older files, (that may not include the referenced multicolored borders), can be updated to work with MicroStation Batch Print by referencing the appropriate border file, as follows:

W:\Highway\Design\CADD\OrigFiles\dsnOrigEng.border or dsnOrigMet.border The border file reference attachment may need to be scaled to match the existing sheet file scale, and must be moved to properly align sheet one in the "multi-color" file, to the lower left sheet in the existing border file. After aligning the files, turn off all but one level in the multicolor reference file attachment, leaving the level dsnShtPlotShapeMultiColor turned on.

## Files with Single Sheet models and no Working Model

All Plan/Profile style sheet files, (including Plan & Profile, Full Plan, and Full Profile), are created with the Geopak Sheeting process, and do not use the 100-sheet seed file. Each "sheet seed-file" has a reference of a specific file containing a plan sheet border, such as the DsnESheet-3000-10.dgn file, shown below. The blue plot shape border, (located by the arrow), is on the MicroStation Batch Print level dsnShtPlotShapeBatchPrint. Therefore, there is no need to run the Batch Print Shape Placement tool before using the MicroStation Batch Print program.

**NOTE:** Some old files may still display a couple additional dashed borders, which were at one time used with different plotting procedures, and should now be ignored.



As before, the **Batch Print** process should be set to search for a shape on level dsnPlotShapeBatchPrint. When the "**Border, Send to Back**" command is run, (to alter the border file reference update sequence), the blue border, (shown above), is copied into the file. Therefore, the **Search File** parameter selected should be "**Master File**", as shown below. For more information on the "**Border, Send to Back**" command, see file 21A-81.

dsnShtPlotShapeBatchPrint Properties Reference View View: 1	QK Cancel
Method Shape	ach Files Master File <u>R</u> eferences
Process Multiple Boundary Elements	

The only other significant difference for Single Sheet Models is that the plotting will be from separate numbered models, rather than from the working model, since there is only one sheet per model.

For more information on **Batch Printing** plan sheets, see instruction file <u>21E-1</u>.