

MicroStation Basic Macros...

To run a macro after it has been downloaded and unzipped:

- At the MicroStation command line type in **macro *macro_name*** (e.g., macro badline).
- Or, use **Utilities > Macros>MicroStation BASIC** from the MicroStation pulldown menus to bring up the Macros dialog box, select the macro name in the dialog box, and then select the **Run** button.
- Or, attach the "macro *macro_name*" keyin to one of the function keys and then hit the function key to run the macro.
- Or, attach the "macro *macro_name*" keyin to a tool in a custom toolbox or menu.

badline (V7 only)

- This macro locates "zinger" lines that go from the drawing off into space that the user can't locate or delete using Microstation commands. This macro will find these lines and isolate them on a user defined level/symbology so that they can be selected using the Edit>Select By Attributes tool and then deleted with the element delete tool. (These lines are typically created by Geopak Survey when you try to store a point whose coordinates are off the design plane.)

checkcmt (V7 only)

- This macro proof reads Geopak input files (or criteria files) for comment delimiter errors. (Comment delimiters used by Geopak are /* and */ pairs.) Geopak doesn't allow nested comments, so errors include two consecutive open comment delimiters, two consecutive close comment delimiters, or unpaired comment delimiters. If an error is found, a message box will pop up with the line number(s) and type of error (e.g., "Two consecutive open comment delimiters found on line #234").

Check_Report (V7,V8 X10 & X30)

- This is the user interface routine for the 3-port criteria file chk_xs_report.3pc which traces the data from red/blue top and design/original ground cross section reports onto the proposed cross sections to allow for quick visual checking.

chkbear (V7, V8X10 & X30)

- This macro checks the COGO "describe chain" output file for kinks in an alignment by comparing the AH and BK bearings of consecutive chain elements. The user chooses the tolerance for bearing comparison in an initialization dialog box (i.e. how much the bearings need to differ before they are flagged as a kink). This macro only works with bearings, rather than azimuths, and uses the "describe chain" listing. The results are reported both on the screen and in log files chkbear.log and chkbear.err.

chngcase (V7 only)

- This macro changes the case of text or text nodes to all lowercase, all uppercase, or mixed case (first letter of phrases and sentences uppercase, everything else lowercase). User identifies text/text nodes to be changed by creating a selection set, or by setting a fence, prior to calling the macro.

ClearLimit (V7, V8 X10 & X30)

- This is the user interface routine for the 3-port criteria file clearing_limits_plan.3pc which draws the limits of clearing into the plan design file, based on the data from the Geopak clearing report.

curve_widening (V7, V8 X10)

- This is the user interface routine for the 3-port criteria file curve_widening.3pc which will draw the curve widening into the plan design file.

delpxs (V7 only)

- This macro deletes everything in a dgn file on user specified levels. By default, this macro assumes that everything except levels 56 and 63 should be deleted. However, the user can adjust the levels to be deleted in an initial dialog box that pops up when the macro is called. Also in the initial dialog the user can choose to have the dgn file compressed after the elements are deleted. (Notice that this macro deletes all the elements in the dgn file on the specified levels, regardless of whether the levels are turned on or off, so use with caution.)

Delxs61 (V7 only)

- This macro deletes everything in a dgn file on level 61. This was written to facilitate deleting extraneous elements that are drawn with the criteria files. In the initial dialog box that pops up when the macro is called, the user can choose to have the dgn file compressed after the elements are deleted. (Notice that this macro deletes all elements in the dgn file on level 61, so use with caution.)

find_shortlines (V7, V8 X10 & X30)

- This macro finds and marks any short line segments with the same level/symbology as the proposed cross section elements, which are within the tolerance distance of the finish grade. These short line segments confuse the Geopak XS Reports procedures and can be tricky to locate. This macro allows for the option of searching the entire file, searching a fenced area or searching a selection set.

fixggrp2 (V7 only)

- This macro changes the tcb variable GRAFIC (the next available graphic group number) to a user defined value. This was written to address a bug in the Geopak D&C Manager that sometimes fails to increment the GRAFIC variable in the file header after creating a graphic group. **Don't use this macro unless you're absolutely sure you know what you're doing.**

get_xs_pts (V7, V8 X10 & X30)

- This is a routine used by the 3-port criteria ssb_trace.3pc which extracts the points from the current station from the temporary file (c:\temp\xs_pts.lis) that the 3-port criteria then plots.

[get_xs_stations \(V7, V8 X10 & X30\)](#)

- This is one of two subroutines called by the 3-port criteria `ssb_trace.3pc` (The other one is `parse_ssb`). This macro makes a list of the stations for the current Geopak cross section file. The output file is called `xs_station.lis` and is placed in the current directory.

[gtmet \(V7, V8 X10 & X30\)](#)

- This macro places North and East coordinates of the users data point(s). Coordinates are rounded to the nearest master unit. Coordinate text is formatted with commas separating thousands and with an "N" or "E" suffix (i.e. 12,345 N). The North coordinate text is rotated 90 degrees and is located above and to the left of the point; the East coordinate text is horizontal and is located above and to the left of the point. The text size and offset from the data point, are user definable in an initialization dialog box.

[milepost \(V7, V8 X10\)](#)

- This is the user interface routine called by the 3-port criteria `milepost.3pc` which draws milepost stationing for a chain. The user identifies the beginning location and initial milepost number.

[parse_ssb \(V7, V8 X10\)](#)

- This is one of two subroutines called by the 3-port criteria `ssb_trace.3pc` (The other one is `get_xs_pts`). The 3 port criteria draws a trace line onto existing design cross sections representing the information from the FHWA slope stake report to allow the user to graphically spot check the information in the slope stake report. This macro extracts the points from the slope stake report and writes it in a normalized format to `c:\temp\parsed_ssb.lis`.

[placell1 \(V7 only\)](#)

- This macro places cells scaled to fit exactly inside circles previously drawn into `dgn` file on a user defined level. This only works correctly for cells with their origin at the center of the cell (e.g., tree cells).

[placell1_v8 \(V8 X10 & X30\)](#)

- This macro places user specified cell(s), scaled to fit exactly inside a circle(s) that has been drawn on a user specified level. The following assumptions were made: 1) The origin of the cell is at the centroid of the cell 2) The width of the cell in the x-direction will be scaled to match the circle diameter 3) The origin of the cell will be placed at the center of the circle 4) The cell will always be placed at `AA=0`.

[placell2 \(V7 only\)](#)

- This macro places an instance of the active cell, at the current active scale, and then allows the user to interactively rotate the cell about its origin.

placell3 (v7 only)

- This macro places an instance of the active cell, at the current active angle, and then allows the user to interactively scale the cell about its origin.

placell4 (v7 only)

- This macro places an instance of the active cell, and then allows the user to interactively scale the cell about its origin and then interactively rotate the cell about its origin. (Similar to the Place Cell Interactive command except that the relative horizontal/vertical proportions of the cell are always maintained.)

refhub (v7 only)

- This macro finds all the instances of a specific text string in the current design file and places a cell at those locations. User specifies the text string to find, the cell name, the cell scale and the cell library in a setup dialog box. The cells are placed at AA=0 and with cell origin matching the text string origin.

Rotatex2 (v7 only)

- This macro rotates all the text/text node elements in the current selection set, or within a fence, to the active angle.

row_pt_sort (v7, v8 X10 & X30)

- This is a subroutine called by the 3 port criteria row_pts.3pc to process points file created by that 3pc. This macro outputs two sorted points files (one for each side of the roadway) that are used by the 3 port criteria.

row_pt_ui (v7, v8 X10 & X30)

- This is a subroutine called by the 3 port criteria row_pts.3pc to provide the user interface for that 3pc.

startup_v8 (v8 X10 & X30)

- This macro is a startup macro for V8, it sets the CO, WT and LC to Bylevel.

XS_ClearLimits (v8 X10 & X30)

- This is a subroutine that provides the user interface for the 3 port criteria clearing_limits_XS.3pc.

XSDELETE (v8 X10 & X30)

- This macro deletes all levels except for the existing ground and the cross section cell.

zero_super (v7, v8 X10 & X30)

- This macro adds the 0% cross-slope filler lines to the Geopak autoshaps input file. The new file is saved as originalname_rev.inp in the working directory.