

PointCad

This program can be executed from a shell out of AutoCAD by selecting from the File Pull-down menu of SurvCADD or from DOS by typing POINTCAD. POINTCAD.EXE will transfer point coordinates from a coordinate data file, (such as generated by Surveyor I coordinate geometry program or from the SurvCADD Traverse Reduction Program) to an AutoCAD drawing in the form of point symbol, point number, elevation and description attributes. After the program loads, type [H] for help to review further information.

When using the View Coordinate or Points to AutoCAD output routines, the user is prompted for the DESCRIPTION FIND MATCH:. By using the * character all points in the specified point number range are output. By responding with another character substring, only descriptions with matching characters will be output. The * character can be used as a wild card character. If you enter PC*, Pointcad will output points with the letters PC in the text/description field. For example, if point numbers 1, 5, 12 & 15 had descriptions of PC1, PC2, PC3 & PC4 respectively, these points would be output.

[D] Default Paths & Formats

Figure P1 shows the main menu of Pointcad. The first time you use the program you should use the [D] menu option to setup the drive path and format for the coordinate file(s) you will be working with. Pointcad will prompt for the drive/path of the input and output files.

```
2:00:45 PM
[PointCAD Program by ACF Corp. Vers. 11 (c)1991]
      [D] Default Paths & Formats
      [S] Set Input & Output Files
      [U] View Input File Coordinates
      [P] Points to AutoCad
      [E] Edit Description Code Translation Table
      [A] Append Script OFF
      [H] Help & Settings
      [T] Traverse Programs
      [F] Process DXF Program
      [X] Shell to DOS
      [C] Convert COR file to CRD file
      [Esc] Exit Program

INPUT FILE :
OUTPUT FILE:
FREE MEMORY: 497496 * 49352

CHOOSE MENU OPTION ?
```

Figure P1

Below is a table of the input and output file format screens.

Input File Formats:

- 0** This option will read a coordinate file generated by SurvCADD Traverse Reduction Program (*.CRD file) or by SurvCogo.
- 1** This option will read a 2 or 3 dimensional coordinate file from the original Carlson Coordinate Geometry program.
- 2** This option will read the file generated by the Write Points Command found on the File Pull-Down Menu explained previously.
- 3** This option will read a file generated by the Universal Plus program or MTI Cogo (formerly Discotec). Use the JobLog function to create an ASCII file.
- 4** This option will read a file generated by Simplicity version 2 Coordinate Geometry. This is an ASCII File consisting of a North and East coordinate.
- 5** This option will read an ASCII file generated by the WildSoft program.
- 6** This option will read a file generated by the generic ascii output option of the Geodometer data collection program.
- 7** This option will read a file generated by CivilSoft's Cogo. Set the printer output to a file name and then list the points to this file.
- 8** This option will read a file generated by the Maptech Coordinate Geometry Program.
- 9, 10, 11, & 12** are included to read generic ASCII files generated by programs not specifically listed above such as D.C.A.
- 13** This option reads an ASCII file generated by SDRMAP. Use Data Base Editor Coordinate format.

-1 This option reads a file generated by version 3 of Simplicity Coordinate Geometry.
 When you use input formats 2 through 13 the file is converted to the file TEMP\$\$\$\$.COR which is a format 0 file. If you are using these input formats then each time you convert a different file you must use the [D] option to set the correct format.

Output File Formats:

- 0** This option will write a coordinate file such as generated by SurvCADD Traverse Reduction Program (*.CRD file) or by SurvCogo.
- 1** This option will write a file that can be read by AutoCAD's SCRIPT command. The file can be used to draw points, lines, polylines or arcs. Lines, arcs and polylines require description coding as explained later.
- 2 thru 9 & 11** Output files for use by different cogo programs. The ASCII formats show the type of output in parentheses. For example, option 6 will write a file consisting of a point number, northing, easting, elevation and point description delimited by commas.
- 10** This option will write a file that can be read by AutoCAD's DXFIN command. The blocks SRVPNOI must be defined if you are going to transfer to a non-SurvCADD system.
- 12** This Option writes a file that can be read by Civilsoft Cogo.
- 13** This Option writes an ASCII file that can be read by SDRMAP's Database editor Coordinate Format.
- 1** This option writes a file compatible with version 3 of Simplicity Coordinate Geometry.

[S] Set Input and Output Files

Use this option to define the names of your input and output files. The files should include file extensions but not a path or drive name. They should be set using the [D] option explained previously.

Example Prompts:

Name of Format# 0 Coordinate Data Input File: SITETOP0.CRD

Name of AutoCad Script Output File: SITE.SCR

[V] View Input File Coordinates

Use this option to view or display the input file's list of coordinates on the screen. This option prompts for the range of points to display and the description find match characters. The description find match can be used to filter the output of this routine and the [P] Points to AutoCAD option. For example, if the user enters the characters SS* then only coordinates with the substring characters SS in the description will be output. If the user enters SS1 only coordinates with the same matching description will be output. If the user enters * then all coordinate points in the specified range will be output.

Example Prompts:

Printer Toggle ON? (press [P] to change from on to off followed by [Enter])

This determines if the coordinate list will be sent to the printer device.

Point# to Start at: 10

Point# to End at: 100

Determines the range of point numbers that will be output.

Description Find Match: *

Enable Description Code Translation Table: Y

Determines if the list will use the Description Code Table to output the point description.

[P] Points to AutoCAD

This option will read the input coordinate file and draw a point symbol, point number, elevation and description at specified coordinates. This option prompts for the range of points and the description find match characters. The next prompt enables or disables the use of the description translation table explained below. Respond with Y to enable its use or N to disable or not use the table. This option then prompts for plotting scale, point label text size and point symbol size.

Next the user is prompted if you want to label elevations. If you respond with Y then you can define the number of decimal places to round the elevation label to and its position around the point symbol. The user then disables or enables the plotting of descriptions. The output format must be set to I (script output) or 10 (DXF output) for this option to function.

Example Script file output Prompts: (DXF prompts very slightly)

Point# to Start at: 10

Point# to End at: 100

Determines the range of point numbers that will be output.

Description Find Match: *

Asterick is a wild card character which when used by itself means all.

Enable Description Code Translation Table: Y

Determines if the list will use the Description Code Table to output the point description.

Point Symbol Number: 23

Determines the point symbol that will be plotted. If the Description Code Table is enabled this is used for points that do not have a description code in the table.

Point Label Location Block/Attdef suffix: I

Determines the position that the point number is plotted relative to the point symbol.

Scale of Plot: 50

This variable will be used as a multiplier for the point symbol size and point label text size.

Rotation Angle: 0

Determines the angle that point attributes will be twisted.

Point Label Text Scale: .06

This variable is multiplied by the Scale variable above and AutoCAD's Text units is set accordingly to size the point number, elevation, and description.

Point Symbol Size: .06

This variable is multiplied by the Scale variable above and units are set accordingly to size the point symbol.

Elevations (Y/N): Y

Determines if elevations will be plotted.

Number of Decimal Places for Elevations (0-3): 2

Description (Y/N): Y

Determines if point descriptions will be plotted.

[E] Edit Description Code Translation Table

This option allows you to setup or edit a table of codes that can be used to draw certain point symbols and automatic descriptions. This can be very effective in plotting coordinates that have been collected with an electronic data collector. By entering 1, 2 or 3 character code numbers or letters in the description field of a point, a specified symbol and description can be plotted in AutoCAD. Figure P2 shows the Edit screen with part of a table. The bottom of the screen shows the keys that control the line placement of the HI-LIGHT. By placing the HI-LIGHT on a particular line and pressing the [F2] key the user is prompted for the values of the table. To initialize or append more codes to the table use POINTCAD's [H] Help option and hold the [Alt] key and press the [I] key. The table can be given any name and have up to 999 codes.

If you press the [P] key while viewing the code table, printer options are displayed at the bottom of the screen. Pressing [P] again prints the full table. Pressing [F] prints a Field version of the table printing only codes and auto/descriptions. Pressing [C] presents five printer device options. The default printer device is LPT1:, if your printer is configured otherwise use this option to change to alternate ports or a file. (This device is also used for the print option in [V] View Coordinates explained previously.)

EDIT DESCRIPTION CODES #CODE'S: 20				FILE: DESCODE.DTA	2:45:36 PM	
#	CODE	SYB#	SYB/SIZE	AUTO/DESCRIPTION	TEXT/SIZE	LAYER
1	EPR	9	.06	EOPR	.08	PAUE
2	EPL	9	.06	EOPL	.08	PAUE
3	BC	10	.01	BLDG CORNER*LO	.08	BLDG
4	MH	41	.1	MANHOLE	.08	UTIL
5	36	52	.2	TREE	.08	TREE
6	CL	9	.06	CENTERLINE	.08	CLINE
7	TS	1	.08	TRAFFIC SIGN	.08	UTIL
8	BU	59	.1	BUSH	.08	TREE
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

F2 EDIT HI-LIGHTED LINE **↑↓** MOVE HI-LIGHT UP & DOWN **PgUp & PgDn** MOVE PAGE
Esc EXIT **Home** HI-LIGHT 1ST LINE **End** HI-LIGHT LAST LINE **P** PRINT TABLE

Figure P2

You can use the [.] character (period) in the Auto Description field of the table to blank the description. The [/] character can be used after a code to append text to an Auto/Description. If you coded a point with the description GR+O/ 1204A, this would output the auto/description defined in the table and append the characters 1204A to it. These appended characters should follow the point or fine drawing code.

You can do line work by adding the following codes:

+0 or +3 or -40 START LINE

-0 or -I or -04 END LINE

*0 START LINE & CLOSE BACK ON AFTER -0 CODE

+I or -I BEGIN 3 POINT ARC

+2 OTHER POINT OF 3 POINT ARC

+3 or -3 END 3 POINT ARC

+4 or -04 BEGIN SMOOTH CURVE (CURVE FITTED POLYLINE)

-4 or -40END SMOOTH CURVE

*4 BEGIN & CLOSE BACK ON AFTER -4 CODE

+5 BEGIN 3DPOLY LINE (BARRIER LINE)

-5 END 3DPOLY LINE

*5 BEGIN & CLOSE BACK ON AFTER -5 CODE

If you decide to use this feature do not use the characters + - or * in a description code. For example, if you code a point with the description 12+0 PointCad will begin a line and find all consecutive code 12's and connect them with lines until it encounters a code 12-0.

[A] Append Script

This option toggles whether to overwrite or append the last written script file.

[H] Help & Settings

The Help screen shows the line editing keys. These keys control cursor movement and editing whenever the program is prompting you for data. By pressing the page up and page down keys you can set the screen colors. By holding the (Alt] key and pressing the [D] key the user can edit the values of the SDEFAULT.DTA file referenced other places in this manual. By pressing [Enter] additional help screens can be accessed.

[T] Run Traverse Program

This option allows access to the Traverse Reduction and Editing programs.

[F] Process DXF Program

This option runs the Process DXF program which will write a generic DXF file. Use this program to write DXF files to non SurvCADD/AutoCAD systems, AutoSketch or Intergraph Micro Station. The program also contains functions for rotating and renumbering a SurvCADD *.CRD File. See details of this program in the next section.

[X] Shell to DOS

Allows the user to run DOS programs and return to POINTCAD by entering EXIT.

[Esc] Exit Program

Exits program and returns to AutoCAD's Drawing Editor or DOS

