



Phone 563.556.8392  
Toll-free 800.678.6565  
Fax 563.556.5321  
4131 Westmark Drive  
Dubuque, IA 52002-2627  
[www.eaglepoint.com](http://www.eaglepoint.com)

## Eagle Point Solution to a Frequently Asked Question

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### Commonly asked Support Questions for *SMI Plot*

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**Summary:**

This document provides solutions to some of the more commonly asked support questions regarding *SMI Plot*. Please note that *SMI Plot* is no longer supported by Eagle Point.

**Product:** SMI Plot

**Platform:**

**Related documents:**

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### Working with Symbols

To help save time in creating a plat, a symbol font was built into the SMI Plot program. When used correctly, this program will automatically draw symbols previously selected by the user just by inserting a code, note, or description with each point stored. To use this program, follow the steps below:

1. Click on the Points menu.
2. Go to Edit, then Edit Code File. This is the file that will tell the program what symbols to map to the points.
3. The code file can be customized to fit the descriptions that are used.
4. The order of information in the code file is essential to successfully mapping the points. The order is as follows: Code or Description, Marker type, Size of the marker. For example: IPF, 43, .06 would map all of the points named IPF to a marker that looks like a crosshairs symbol. See the complete list of symbols below.
5. After the code file has been saved, go to the Points menu, then Edit and Draw from Codes. The points will then be mapped according to their codes or descriptions. If you need to edit the code or description, simply double-click on the individual points and change the note.

### Working with AutoCAD

To export the SMI Plot drawing file into an AutoCAD compatible format, the fonts within SMI Plot must be copied to the AutoCAD *Fonts* directory. There are four SMI Plot fonts you will need to copy, and the extension is .shx.

#### *Windows Method*

1. Start a session of Windows Explorer.
2. Navigate to the \smiplot folder.
3. Use Ctrl+click to highlight the four SHX files in the folder.

4. Right-click on the group and choose Copy.
5. Navigate to the AutoCAD Fonts folder.
6. Right-click on the AutoCAD Fonts folder and choose Paste.

#### *DOS Method*

1. Exit to a MS-DOS prompt.
2. Type in CD \smiplot.
3. Type copy \*.shx c:\AutoCADFonts (where AutoCADFonts is the appropriate AutoCAD Fonts directory).

The file will now have the proper fonts included in the drawing.

#### **Clip Command**

To take off contour lines within a closed chain (ex. House), follow these steps.

1. Type in clip on a blank command line.
2. The mode is set to inside. This will eliminate different objects within the object.
3. Hit the TAB key or click on bound. Click on the object or record from which you want the contour lines erased.
4. Hit the TAB key or click on OBJS. Click on each line that goes through the chosen object (e.g. any contour line that runs through a building).
5. Click OK.

The clip command only works with points and lines with elevations assigned to them.

#### **Deed Commands**

These are commands that can be typed in on a blank command line to help you produce a drawing.

Command	Description
Ocpy	Occupies a given point (e.g. Ocpy 34 [ENTER] - to occupy point 34).
Bkpt	Sets your backsight point.
Ne or 1	Draws a line in a given northeast direction.
Se or 2	Draws a line in a given southeast direction.
Sw or 3	Draws a line in a given southwest direction.
Nw or 4	Draws a line in a given northwest direction.

Example: To enter a deed call of N 35° 25' W for 234.99 feet you would type in NW 35.25 234.99 [ENTER].

Quadrant numbers may be used instead of the directions.

Command	Description
AR	Angle right. To use angle right, type in "ar angle distance" or "ar angle zenith distance".
CR	Curve to the right. To use a curve to the right, type in cr arc length radius.
CL	Curve to the left. To use a curve to the left, type in cl arc length radius.
AZ	Azimuth. To use azimuth, type in "az angle distance" or "az angle zenith distance".
Bkaz	Sets the current back azimuth.

## Divide Command

The Divide command is used to divide a line into even segments. It creates points at the interval you choose. To use the command, follow the steps below.

1. Type in divide on a blank command line.
2. Click on the line you wish to divide.
3. Choose the number of segments that you want the line divided into.
4. Choose either entire line or even stations.
5. Click DIVIDE.

## Draw From Codes

To implement the linework feature in SMI Plot, you will need to define a "map file", which includes the code, linetype, layer, and color of the desired line. The steps below will guide you through defining the file as well as drawing the lines from your codes.

### *Define the Map File*

1. Click on Lines, Create, From Codes...
2. Click on Edit Code File button.
3. Type in the desired codes as follows. Code, Linetype, Layer, Color. The format is the same for each line. For example:

```
IPF,SOLID,LINE,2  
CM,DASH,LINE,1  
IPS,SOLID,LINE,3  
CL,CENTERLINE,CL,1  
FENCE,FENCELINE,LINE,3
```

4. Save the file when you have completed all the code definitions and exit the text editor.

### *Import the Points into SMI Plot*

1. Click on JOB, DRAW FROM CODES.
2. Choose the points to connect.
3. Hit shift button and right mouse button. Choose one of the options from the menu, usually layer or window. If you choose layer, simply click on one of the points and it will automatically choose all the points on that layer. If you choose window, draw a window around the points that you want to connect.
4. Click on the Map File Box.
5. Click Browse.
6. Choose your defined map file. Click OK.
7. Click Create. The lines should be drawn according to the codes attached to the points.

If you need to have annotations on the lines, click on the Move Label icon and click on the line that you want to annotate.

## Extending Lines

To extend boundary lines beyond the points, follow the steps below.

1. Type extend on a blank command line.
2. Uncheck To boundary. This changes the option to distance.
3. Type in a distance.
4. Press tab or click on the line box to move the cursor.
5. Click on the end of the line that you want to extend.
6. Put a check in Add pt/seg box.
7. Click Extend.

If you do not put a check in the add pt/seg box, the original line will be extended the distance that you have chosen.

### **Hatch Command**

To "hatch out" certain areas on your plat, simply:

1. Type in hatch on a blank command line.
2. Click on Pattern to choose a hatch pattern.
3. Click on Record or press Tab to move to the Record box.
4. Move the cursor up to the drawing and click the closed chain that you want to hatch. The hatch command will work with boundary lines and sketch lines.

### **Notes**

- *If the scale needs to be changed, you may do so before you click Pattern. The Pattern button will draw the hatch lines.*
- *To have more control over the hatch patterns, click the User button instead of the Pattern button. This lets you determine the angle of the pattern, the space between hatch lines, the closed chain to hatch, and the scale. After you have finished your settings, click on User to draw the hatch lines.*
- *To edit any hatched area, go to the edit menu and choose edit object.*

### **Implementing the Line Width Feature**

If the lines in your drawing are the same thickness, you will need to load a different pen map. To do this, follow these steps.

1. Go into the SMI plot program.
2. Go to the command line at the bottom of the Plan View and type plotset.
3. Click on the load pen map button.
4. Click on SMI and hit LOAD.
5. Click OK to get back to your plan view.

You should now be able to plot varying line thickness.

### **Loading Additional Line Types**

1. Type in linetypeset and hit [ENTER].
2. Click the LOAD button.

3. You will see line types listed. To see additional libraries of linetypes, click BROWSE.
4. All of the files with a ".lin" extension are line libraries.
5. Select any or all of the files that you want and click LOAD and then DONE.

You will now have the new linetypes listed in the choices for lines.

### Manual Entry Example

1. Open up a new job.
2. Click on Lines, Create, Traverse/Sideshot.
3. At the bottom of the screen, click on the Setup button.
4. Put in your backpoint, occupied point, and if you want elevations carried, click the elevations box and then set your HI and HROD.
5. Click OK to return to the traverse/sideshot menu.
6. Click on the button to indicate whether the shot is a sideshot or a traverse shot.
7. In the white box to the right, put in either the bearing or angle and click the corresponding button to the right. Bearings are entered with the quadrant first. For example, N 57°22' W would be entered 457.22 and then click the BRG button. If the number is an angle right, put in the angle and click the AngRt button and so on. See Deed Commands for additional details.
8. You are asked for either the slope distance or horizontal distance and the zenith angle or vertical distance.
9. Click OK to store the shot. If you are taking a traverse shot, you will automatically be moved up to that point and backsighted on the previous point occupied.

*Note: The sideshots will appear as points and the traverse shots will be linked together with lines to show your traverse. These lines can be deleted or hidden later if you desire.*

### Creating Title Block

#### Title Block Lines

1. Create a new job. You can name it anything.
2. Go to the sheet icon – set the border, tab size, and paper size you want. This example will be 8½"x14" with a ¼" border on four sides.
3. For title block choice, choose none. Click OK. This should give you a clean slate in which to start.
4. Choose the "maximize" box in the sheet view, which is the second button or the box located in the upper right corner of the sheet view.
5. Zoom in on the bottom of the sheet.
6. First we will draw the lines. Choose sketch lines (we will be starting at the bottom right-hand corner). As you provide different X, Y values, it will draw the lines for you. The main box will be defined with the following calls:

```
LOC: 8.25, .25 enter  
LOC: 8.25, 3.625 enter  
LOC: .25, 3.625 enter  
LOC: .25, .25 enter  
LOC: 8.25, .25 enter
```

7. Now we're ready to put in our dividing lines in the title block. Using a ruler, measure up from your starting point to where your first division line starts. In this example the next calls would be:

```
LOC: 8.25, 3.25 enter
LOC: .25, 3.25 enter
LOC: 3.75, 3.25 enter
LOC: 3.75, .25 enter
LOC: 8.25, .25 enter
LOC: 8.25, 2.625 enter
LOC: 3.75, 2.625 enter
LOC: 3.75, 2.25 enter
LOC: 8.25, 2.25 enter
LOC: 8.25, 2.0 enter
LOC: 3.75, 2.0 enter
LOC: 3.75, 1.0 enter
LOC: 8.25, 1.0 enter
LOC: 6.75, 1.0 enter
LOC: 6.75, .25 enter
LOC: 5.25, .25 enter
LOC: 5.25, 1.0 enter
LOC: 3.75, 1.0 enter
LOC: 3.75, .625 enter
LOC: 6.75, .625 enter
```

This finishes our box template.

#### **Title Block Text**

1. To create text in your title block, click on the create text icon. Type in your text and click OK. Drag the text wherever you want to position it. Don't worry if isn't perfect, you can move it later if you want.
2. Repeat the previous step for any text you want in your title block.
3. Go to the Edit menu.
4. Choose Blocks.
5. On the command line, click on record and start choosing the objects in your new title block.
6. After you are sure you have everything selected, click in the origin box on the command line. Your origin will always be the lower right of the sheet. Our example would be "origin: 8.25, .25" which is our bottom right hand corner.
7. Click the name button. Begin the name with TB\_ and the name you want to call it. Our example title block will be TB\_TEXT. The name can only be up to 8 characters in length.
8. Check the external block box and click OK.
9. Make sure you have everything the way that you want it because the next step is the point of no return\*. Are you ready?
10. Click the Create button.
11. You will now be able to go to the sheet icon and choose your new title block.

*Note: \*The block command actually copies everything that you have chosen into the title block, but doesn't delete the information from your current job. If you need to make any changes later, make sure you have the job that you created the title block in saved. You can make changes and then rebuild the block.*

#### **SMI Plot - Integrating the TDS Transfer (SMI Plot 3 Only)**

To be able to use the built in interface with TDS, you must have the TDS Survey Link on your computer. The SMI Plot program calls the file tfr16.exe from the directory in which it is stored. To set up the interface, follow the steps below. This is a one time setup.

1. Open the SMlplot program.
2. Type tds on the blank command line.
3. When the dialog box comes up, change the directory to where the TDS Survey Link is found. The file it searches for is tfr16.exe.
4. When the file is found, it will take you into the TDS Transfer. Each time you wish to return to the transfer, type in TDS [ENTER].

#### *Notes*

- *To be able to import the TDS file into SMI Plot, convert it to an ASCII file.*
- *After the file is converted to an ASCII file, go to Job, import, from file and choose the file to import. It should be located in the default c:\smiplot\jobs directory.*