

Metes and Bounds Help



Topics:

- Drawing Wizard
- Data Entry
 - Entering Metes and Bounds Data
 - Entering Section Call Data
- Layers
 - Layer Options
 - Analyze Layer Closing Error
- Tabs
- Drawing Options
 - Drawing Labels and Captioning
- Pictures
 - Background Picture
 - Floating Pictures
 - Snapshots
- Opening, Saving, Printing, Importing and Exporting
- Calculations Menu
- Tools Menu
- Window Menu
- Conversion Table
- Preferences

- Registering, Upgrading and Renewing



Drawing Wizard



The Drawing Wizard is an optional way to start a new drawing and can be found under the File menu. It will ask you several questions about what type of drawing you plan on creating. Based on your answers to these questions, the wizard will preset some of the drawing values to help you accomplish your goals. Using the wizard does not lock you into a particular workflow; it only presets a few options. You can always change any of the drawing options to better suit your needs.

- Simple
 - This option is optimized for working with a single layer. It will keep the drawing centered in the middle of your screen. It is very similar to the blank drawing that you get when you do not use the wizard.

Drawing Wizard (Continued)

- **Complex**
 - This option is optimized for working with multiple layers/plots/tracts in a single drawing. It also provides the option of using a scaled background image, such as a section or topographical map.

- **Section Based**
 - This option will start your drawing using the Section Finder. It allows for easy entry of section calls such as "The northwest quarter of the southeast quarter".

- **Lat / Long**
 - This option will start your drawing using the Lat/Long to Layer tool. Use this option to turn a list of Lat/Long coordinates into a series of metes and bounds calls.

If the Show New Drawing Wizard at Startup checkbox is checked, the wizard will appear each time you start Metes and Bounds. If you uncheck this box, you can still access the wizard from the File menu.

Entering Data

Data can be entered either manually or by using the Data Entry form.

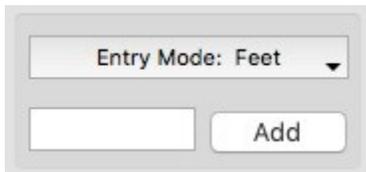
To enter data manually, enter the call into the entry field and press the Add button.



The data should be entered as {N/S} {DD:MM:SS} {E/W} {Distance}. Example: N 44:30:25 E 100. You can also enter "due" north/south/east/west by entering just the direction and the distance. Example: N 100 would be due north 100 feet.

Line calls can also be entered in the following format: {N/S} {DD.MMSS} {E/W} {Distance}. Example: n33.3333e 100.

Distances entered manually are assumed to be feet. To have the software assume a unit of measurement other than feet choose Data Entry Mode from the Tools menu. This will activate a menu button that can be used to change the unit of measurement to that which is being entered. Values entered in this way will be converted to feet. This menu button can be seen below.



In most cases, a "v" or "m" can be added to the distance to indicate that the value being entered is either a vara or meter. Example: N 45 E 100v would indicate 100 varas. The full text of the unit type can also be used, such as N 45 E 100 Yards.

Additional Call Entries:

- Curve - Brings up the curve editor.
- Line - Brings up the line editor.
- Draw - Enters call drawing mode.
- POB - Creates a call that returns from the end of the last call to the POB.
- @ - Creates a new layer.
- @LayerName - Creates a new layer with the specified name.
- / - Adding this slash before a call will create in invisible call.

Data Entry Form

To enter data using the Data Entry form, press the Enter Data button. This will bring up the Data Entry form. You can also bring up this form by right-clicking in the main drawing area or the call list and choosing Enter Data from the popup menu.

The screenshot shows a software window titled "Data Entry". At the top, there are three tabs: "Line" (selected), "Curve", and "Corner". The main area contains several input fields: "Direction:" with a dropdown menu set to "North"; "Degrees:" with an empty text box; "Minutes:" with an empty text box; "Seconds:" with an empty text box; "Bearing:" with a dropdown menu set to "East"; and "Distance:" with an empty text box and a unit dropdown menu set to "Feet". Below these fields is a checkbox labeled "Clear on Add Line" which is currently unchecked. At the bottom left, there is a checked checkbox for "Call Visible", a "Delete Last" button, and a "Cancel" button. At the bottom right, there is a "Text Entry" button with a small icon, an "Edit Call" dropdown menu, and a prominent blue "Add Line" button.

Entering Line Data:

To add a line to the drawing, make sure that the Line tab is selected. Then, enter the call data and press the Add Line button.

If the Call Visible box is unchecked, then the call will not be drawn on the screen, nor will it be used in calculations such as area. An invisible call will be shaded in red in the call list. Calls can be made visible/invisible by right-clicking on the call in the main window.



To delete the last line of the drawing, press the Delete Last button.

You can edit any line by choosing it from the Edit Line menu button.

You can bring up a unit conversion calculator by pressing the ▼ popup menu arrow next to the distance unit popup menu.

If the call's angle is expressed as a decimal or compass direction, you can press the ▼ popup menu arrow next to the degree box to bring up one of the angle converters.

Check the Clear on Add Line checkbox to clear the data entry form when the Add Line button is pressed.

Entering Curve Data:

To enter a curve, select the Curve tab.

The screenshot shows a software interface titled "Data Entry" with three tabs: "Line", "Curve", and "Corner". The "Curve" tab is selected. The interface includes a "Direction:" dropdown menu set to "Left", a "Radius:" input field, and a unit dropdown menu set to "Feet". Below these are five sub-tabs: "Arc Len. (dms)", "Arc Len. (Distance)", "Central Angle", "Chord Bearing", and "Radial Line". The "Arc Len. (dms)" sub-tab is active, containing three input fields labeled "Degree:", "Minutes:", and "Seconds:". At the bottom left, there is a checked checkbox for "Call Visible", a "Delete Last" button, and a "Cancel" button. At the bottom right, there is a "Text Entry" button, an "Edit Call" dropdown menu, and a blue "Add Curve" button.

Choose which direction the curve is facing, either Left or Right.

Enter the Radius of the curve. Clicking the Popup Menu widget next to the radius will bring up a menu of options for finding the radius if the radius isn't given.

Choose the correct tab to enter the curve data in the format that you are using.

The image shows a software interface titled "Data Entry". At the top, there are three tabs: "Line", "Curve" (which is selected and highlighted in blue), and "Corner". Below the tabs, there are two main input sections. The first section has "Direction:" with a dropdown menu set to "Left" and "Radius:" with an empty text input field and a unit dropdown menu set to "Feet". The second section has five sub-tabs: "Arc Len. (dms)", "Arc Len. (Distance)" (selected and highlighted in blue), "Central Angle", "Chord Bearing", and "Radial Line". Below these sub-tabs is a larger input area containing "Arc Length:" followed by an empty text input field and a unit dropdown menu set to "Feet". At the bottom of the dialog, there are several controls: a checked checkbox labeled "Call Visible", a "Delete Last" button, a "Cancel" button, a "Text Entry" button with a document icon, an "Edit Call" button with a dropdown arrow, and a blue "Add Curve" button.

Arc Length (Distance)

Click the ▼ popup menu arrow next to the Arc Length field for additional conversion options.

Data Entry

Line **Curve** Corner

Direction:
Radius:

Arc Len. (dms) Arc Len. (Distance) **Central Angle** Chord Bearing Radial Line

Degree:

Minutes:

Seconds:

Call Visible

Central Angle

Data Entry

Line Curve Corner

Direction: Left
Radius: Feet

Arc Len. (dms) Arc Len. (Distance) Central Angle Chord Bearing Radial Line

Chord Bearing: Ex: N 36:45:12 W
Chord Length: Feet

Call Visible

Chord Bearing

Click the ▼ popup menu arrow next to the Chord Length field for additional conversion options.

Data Entry

Line **Curve** Corner

Direction:
Radius:

Arc Len. (dms) Arc Len. (Distance) Central Angle Chord Bearing **Radial Line**

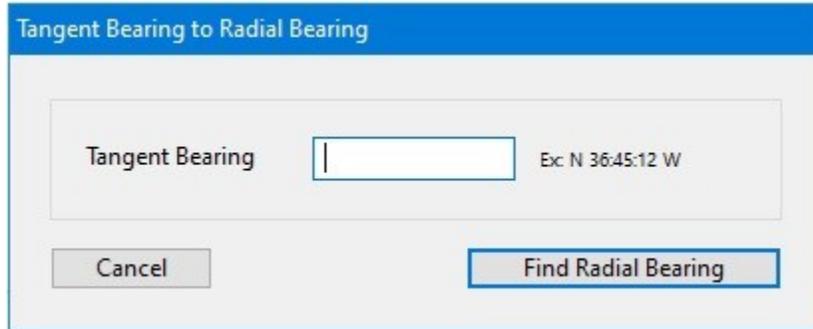
Radial Bearing: Ex: N 36:45:12 W
Arc Length: Feet

Call Visible

Radial Line

Press the Add Curve button to add the curve.

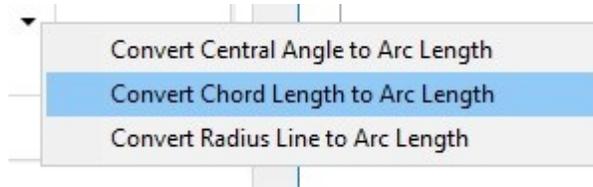
You can convert a Tangent Bearing and Radius to a Radial Bearing by pressing the ▼ popup menu arrow next to the Radial Bearing field. This the button will bring up the conversion form:



The image shows a dialog box titled "Tangent Bearing to Radial Bearing". It features a text input field labeled "Tangent Bearing" with a cursor inside. To the right of the input field is the text "Exc N 36:45:12 W". Below the input field are two buttons: "Cancel" on the left and "Find Radial Bearing" on the right.

Enter the Tangent Bearing. Pressing the Convert button will enter the Radial Bearing into the appropriate field on the main data entry form.

Click the ▼ popup menu arrow next to the Chord Length field for additional conversion options.



Data Entry

Line Curve Corner

Direction: Left Radius: Feet

Arc Len. (dms) Arc Len. (Distance) Central Angle Chord Bearing Radial Line Missing

Solve as missing Chord Bearing

Note: May produce unexpected results if parts of the curve exceed their mathematical limits.

Missing Radius

- Approximate Radius from Chord Length and Arc Length
- Radius from Tangent Length and Central (Delta) Angle
- Radius from Arc Length and Central (Delta) Angle

Call Visible

Delete Last

Cancel

Text Entry

Edit Call

Add Curve

Missing Curve Data

To enter non-tangent curves, enter the deflection as a line with a length of 0 feet, then enter the curve call.

To enter curve data manually:

Text input field:

Add

On the main window, enter Right or Left, space, Radius, space, arc length in degree. For example, to enter a left facing curve, with a radius of 50 feet and an arc length of 30 degrees, 25 minutes enter "L 50 30:25". Then press the Add button.

Entering Corner Call Data

The screenshot shows a software dialog box titled "Data Entry" with three tabs: "Line", "Curve", and "Corner". The "Corner" tab is selected. Inside the dialog, there are three main input areas: a "Quarter Call" text field with a blue border and a placeholder "Ex: NW/4 SE/4"; a "Corner:" dropdown menu currently showing "NW"; and a "Choose Section Corner to Calculate From:" dropdown menu currently showing "Top Left". Below these inputs, there is a "Call Visible" checkbox which is unchecked. At the bottom of the dialog, there are several buttons: "Delete Last", "Cancel", "Text Entry" (with a small icon), "Edit Call" (with a small downward arrow), and "Add Corner" (highlighted in blue).

Entering a Corner Call simplifies the process of setting layers to use the same starting point. The Corner Call line is an invisible line from the drawing's origin to a section corner. For example, if your layer's description starts something like "*Beginning at a point South 300.00 feet from the northwest corner of the northeast quarter of Section 19*", you could create an invisible call from the drawing's origin to the section corner as described. Then you would create another invisible line call for *South 300 feet*. This allows all of the layers to share the same origin, thus facilitating the automatic scaling and placement of each layer within a section.

If the drawing's origin is not one of the corners, you will have to choose a corner to calculate the Corner Call from. Use this same corner for any additional layers.

This call should be the first call in the call list. If not, you can move it to the top of the call list using the Moving Calls feature outline below.

Township/Range/Section information can be entered by clicking the disclosure icon and entering the T/R/S data.

The screenshot shows a close-up of the "Origin:" and "Current Layer:" input sections. Each section has three sub-inputs labeled "T", "R", and "S". The "Origin:" section has empty text boxes for "T" and "R", and a dropdown menu for "S" showing the value "1". The "Current Layer:" section has empty text boxes for "T" and "R", and a dropdown menu for "S" showing the value "1".

Bounded Line:

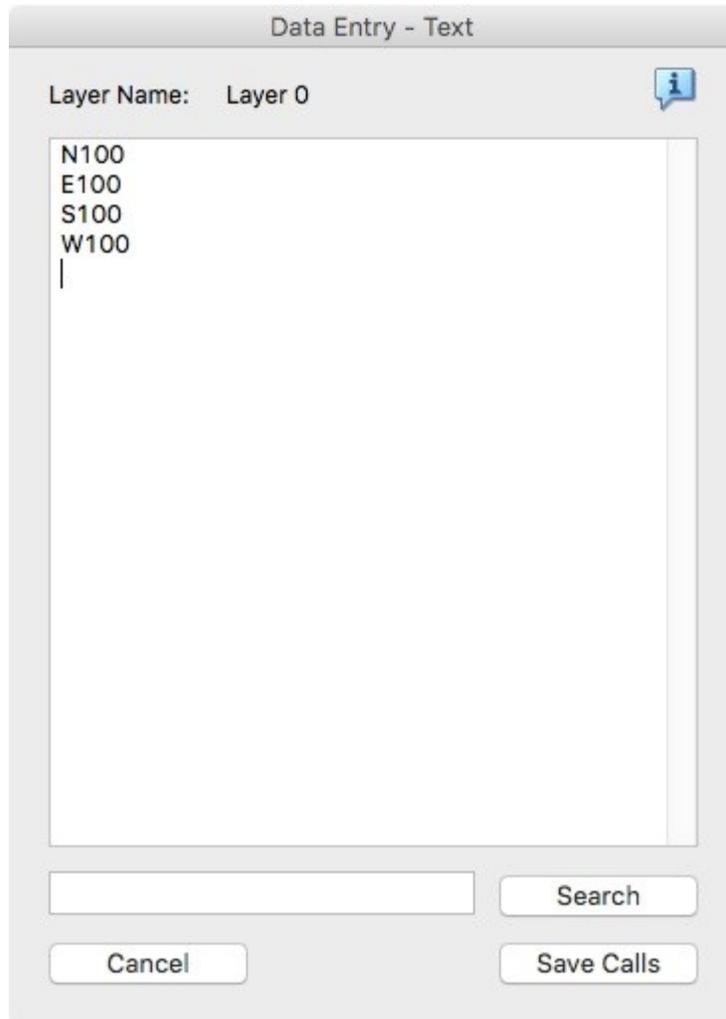
The image shows a software dialog box titled "Data Entry" with four tabs: "Line", "Curve", "Corner", and "Bounded Line". The "Bounded Line" tab is selected and highlighted in blue. Inside the dialog, there is a "Bounding Layer:" label followed by a dropdown menu showing "Layer 0". Below that is a "Call / Bearing:" label followed by an empty text input field. Underneath the input field, there is a note: "Use * for unknown length" and an example: "Example: N 35 E *". At the bottom left, there is a checked checkbox labeled "Call Visible", a "Delete Last" button, and a "Cancel" button. At the bottom right, there is a "Text Entry" button with a small icon, an "Edit Call" button with a dropdown arrow, and a blue "Create Line" button.

This tab allows you to enter a call that will be cropped at the boundary of another layer. Or it allows you to enter a bearing with an unknown length that will be cropped at the boundary of another layer. First choose the bounding layer, then enter either the call or bearing. If entering a bearing with an unknown length, use an * asterisks for the length.

Note: This option cannot be used if the drawing's origin is set to Auto-Center. It also requires that the drawing contain at least two layers - one for the bounding layer and the layer for which the call is being entered.

Entering Calls Via Text Editor

Calls can also be entered via a text editor interface by pressing the Text Entry button on the Data Entry form.



The image shows a software dialog box titled "Data Entry - Text". At the top, it displays "Layer Name: Layer 0" next to an information icon. The main area is a text editor containing the text "N100", "E100", "S100", "W100", and a vertical cursor. At the bottom, there is a search input field, a "Search" button, a "Cancel" button, and a "Save Calls" button.

Any calls that can be entered in the call entry box on the main window can also be entered here.

Search and Replace can be found under the Edit menu.

Options:

Convert Degree/Distance to Azimuth Call: This menu option will “roll up” Degree<enter>Distance<enter> entries into azimuth calls.

Entering Missing, Incomplete or Vague Calls:

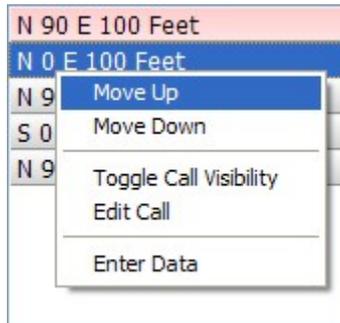
An incomplete or poorly written description may be missing part or all of a call. The software can help solve for these bad calls with several caveats.

- There can only be one bad call per layer.
- The layer will now close completely, even if it wouldn't have otherwise.
- The resulting call will be a line and not a curve.

To use this feature, enter a question mark (?) in place of the call. The question mark can only be entered using the manual entry field.

Moving Calls:

You can move calls up or down in the call list by right-clicking on the call and choosing Move Up or Move Down from the popup menu.



Hiding Calls:

You can hide a call's line and captions by right-clicking on the call and choosing Toggle Line Drawing.

Return to Call:

You can return to the endpoint of a previous call by right-clicking on the call that you want to return to in the call list and choosing Return to Call. This will create an invisible call that returns to the endpoint of the chosen call. The recommended way to return to a call is to create a new layer using the Return to Call custom layer. Using this method of Return to Call can cause some functions to act unexpectedly, such as the Split Layer function and area calculations. However, depending on how you intended to use the software, this option may be the easiest way to accomplish your goals.

Set Call Label:

You can set a custom label for an individual call by right-clicking on the call in the call list and choosing Set Call Label from the popup menu. This will bring up the Set Call Label form. Enter the call's label and press the Set Label button. The call label uses the same settings as the layer [Show Call](#) feature.



Call Label

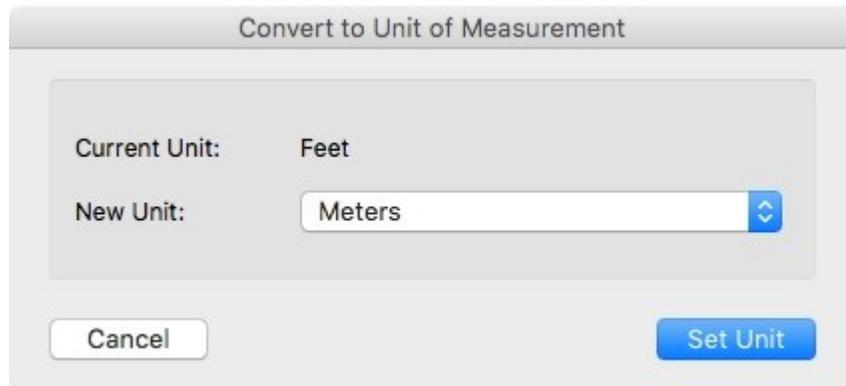
Call Label:

[Note: The Call Label uses the same settings as the Show Calls Option.](#)

Cancel Set Label

Convert Unit of Measurement:

You can convert the unit of measurement for a line call by right-clicking on the call and choosing Convert Unit of Measurement from the popup menu.



Convert to Unit of Measurement

Current Unit: Feet

New Unit:

Cancel Set Unit

Toggle Line Drawing:

You can have a line not draw by selecting this popup menu option. This will also cause the labels for this line not to draw. This is different than the Call Visibility. This option will allow the line to be part of all other features, just not be drawn on the drawing.

Drawing Calls:

See the Call Drawing Tool for information on drawing calls.

Section Finder

This feature will show a graphical representation of a section description. For example:

The screenshot shows the 'Section Finder' window. On the left is a control panel with a text input field containing 'NW/4'. Below it are fields for 'Call:' (containing 'NW/4' with an example 'Ex: E600 N/2 SE/4'), 'Fill Color:' (a green color bar), 'Fill Transparency:' (a slider), and 'Style:' (a dropdown menu set to 'Solid - Gradient'). There are 'Remove', 'Add', 'Remove All', and 'Apply' buttons. At the bottom of the control panel are fields for 'TWN:', 'RNG:', and 'SEC:' (set to 'Unused'), and a '1/4 Grid' dropdown. Two checkboxes, 'Area' and 'Directions', are checked. On the right is a 2x2 grid representing a section. The top-left quadrant is highlighted in green and labeled 'NW/4'. The grid is also labeled with 'N' at the top, 'S' at the bottom, 'W' on the left, and 'E' on the right. Below the grid, the text reads '6,969,600 square feet. 160 acres.' A 'Close' button is located at the bottom right of the window.

To enter a section call, enter it into the Call text box and then press the Add button.

- To enter a quarter, enter NW/4, NE/4, SW/4 or SE/4
- To enter a half, enter N/2, S/2, E/2 or W/2
- To enter a three fourth quarter, enter N3/4, S3/4, E3/4 or W3/4
- To enter in feet, enter N, S, E or W, followed by the distance in feet. For example, "the north 600 feet" would be: N600
- To enter exceptions in feet, enter -N, -S, -E or -W, followed by the distance in feet. For example, "EXC N 300 feet" would be -N300
- To enter exceptions in acres, enter ~N, ~S, ~E or ~W, followed by the acreage. For example, "EXC N 27 AC" would be ~N27
- To enter acres, enter NxAC, SxAC, ExAC or WxAC, where x is the number of acres. For example, "North 20 acres of the SW/4 or the NE/4" would be N20AC SW/4 NE/4.

Click on the Fill Color to change the color used to draw the next added call.
Slide the transparency slider to adjust the calls transparency. The far left is fully transparent.
Choose the fill style to be used for the next added call by choosing the desired style from the Style popup menu.

To edit a call, choose the call from the call list. Make the desired changes and then press the Edit button.

To delete a call, choose the call from the call list and press the Remove button.
To delete all calls for a section, press the Remove All button.

Entering the Township, Range and Section is optional.

You can enter data for up to 36 sections. To view all 36 sections at once, choose View All from the section popup menu.

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

When viewing all sections, click on the desired section to edit it.

Grid Overlay

This popup menu will allow you to choose a grid to draw for the sections. Options are No Grid, 1/4, 1/16 and 1/64 sections.

Show Area

Checking this checkbox will draw area of the entered calls in the lower left hand corner of the drawing.

Directions

Checking this checkbox will draw North/South/East/West markers on the drawing.

Section Finder Options Menu

Save Picture as File: This menu option allows you to save the section drawing as a picture.

Save Picture as Background: This menu option allows you to set the current drawing's background picture to the current section drawing.

Print: This menu option will print the current section.

Create New Layer From Selected Aliquot Part: This menu option will create a series of calls in the current drawing that represent the selected section call.

New Drawing from Current Section: This menu option will create a new drawing containing calls for each section part. It will also use the section picture for the drawing's background.

New Layer from Current Section: This menu option will create a new layer containing calls for each section part.

Calls from Sections 1-36: This menu option will create metes and bounds calls for all 36 sections. The "unused" section will not be included.

Section Finder To Calls

Layer Options

- New Drawing
- Add Layers To Current Drawing
- Include Section Borders

▼

Bottom Right Corner of Section 36

X:

Y:

Lat:

Long:

Cancel Create

Calculate

Area of Section: This menu will calculate the area of the drawn section.

Area From All Sections: This menu will calculate the drawn area of all of the sections in the selected range.

View

View Ranges: The software supports up to 9 ranges. Choosing this option allows you to select which range to work with.

Range Selector

6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36
6	5	4	3	2	1	6	5	4	3	2	1	6	5	4	3	2	1
7	8	9	10	11	12	7	8	9	10	11	12	7	8	9	10	11	12
18	17	16	15	14	13	18	17	16	15	14	13	18	17	16	15	14	13
19	20	21	22	23	24	19	20	21	22	23	24	19	20	21	22	23	24
30	29	28	27	26	25	30	29	28	27	26	25	30	29	28	27	26	25
31	32	33	34	35	36	31	32	33	34	35	36	31	32	33	34	35	36

Click on a range to select it

[Close](#)

View Current Range Sections: This option shows you all of the selections in the currently selected range. This is the same as choosing View All from the section popup menu.

Layers

Layers Menu:

Add New Layer:

Use this menu to create a new layer. You will be presented with a form allowing you to name the new layer. The new layer will become the drawings current layer.



The image shows a dialog box titled "New Layer". It contains two input fields: "Layer Name:" with the text "Layer 1" entered, and "Offset:" with a dropdown menu showing "None". At the bottom, there are two buttons: "Cancel" and "Add Layer".

Choosing a layer from the Offset menu will cause the new layer to have the same offset as the selected layer.



The image shows a close-up of the "Offset:" dropdown menu. The menu is open, showing three options: "None" (with a checkmark), "Last Layer's Offset" (highlighted in blue), and "Layer 0".

If a layer has been moved via the mouse, it will have an offset. If you want the new layer to start drawing in the same location as a layer that was moved via the mouse, choose the moved layer from the Offset menu.

Add New Advanced Layer:

Section Layer

This option is a quick way to create a 1 to 5 mile square section. If you pick a size larger than 1 mile, you'll be given the option to include tick marks at the mile marks. You can also choose which quadrant to create the section in. This allows you to choose if the section is drawn north/south and east/west of the drawing's origin. Creating a Section Layer requires that the drawing's origin be set to something other than Auto-Center. The recommended origin setting is Center of Screen.

New Advanced Layer

New Layer Type:  Section Layer

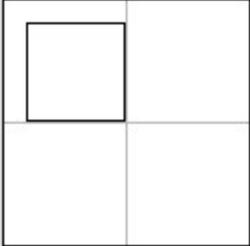
Layer Name:

Set Layer's Offset to Last Layer's Offset

NW Quadrant

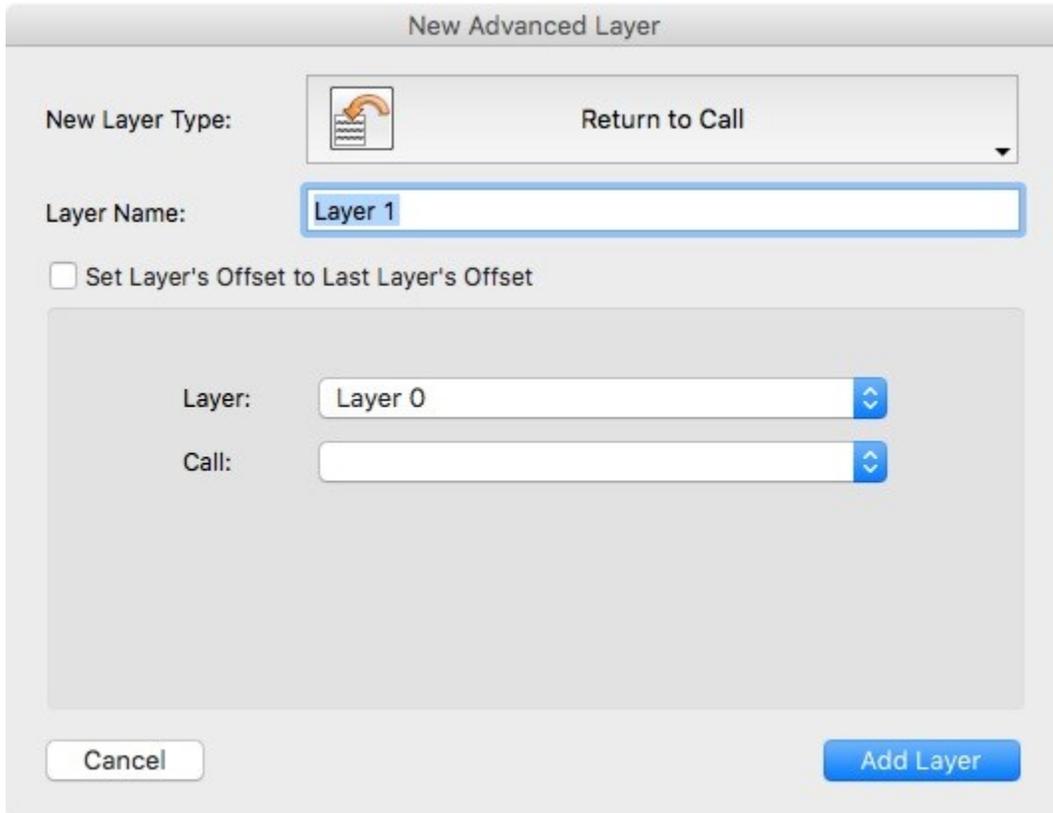
1 Square Mile

Tick Mark at Mile Mark



Return to Call

Creating a Return to Call layer will create a new layer that starts at the endpoint of the layer and call that is chosen. It will automatically create a series of invisible calls, from the drawing's origin, to the chosen call's endpoint. This makes it easy to return to a common point when multiple tracts start at the same reference point. Creating a Return to Call layer requires that the drawing's origin be set to something other than Auto-Center. The recommended origin setting is Center of Screen. This method is the recommended way to return to a call, however, in some cases the "Return to Call" call option may also be viable.



New Advanced Layer

New Layer Type:  Return to Call

Layer Name:

Set Layer's Offset to Last Layer's Offset

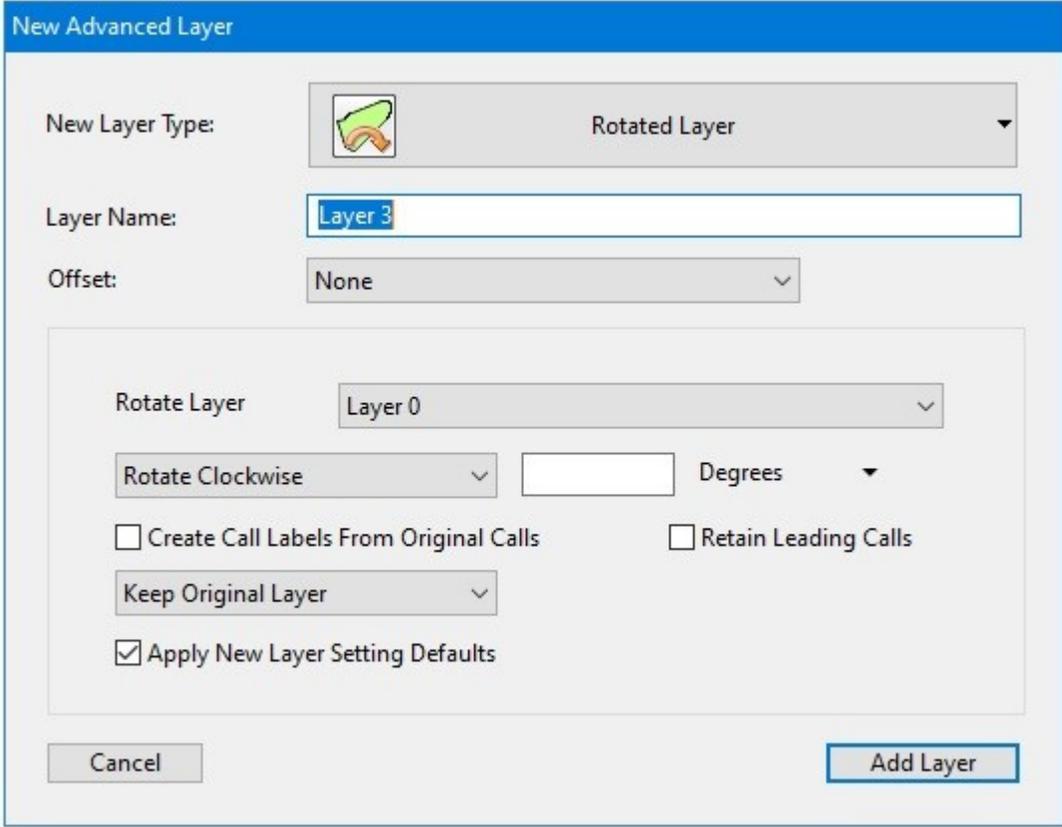
Layer:

Call:

Cancel Add Layer

Rotated Layer

This option will create a new layer by rotating or flipping the selected layer. This will create a new set of calls for the new layer. The recommended origin setting is Center of Screen.

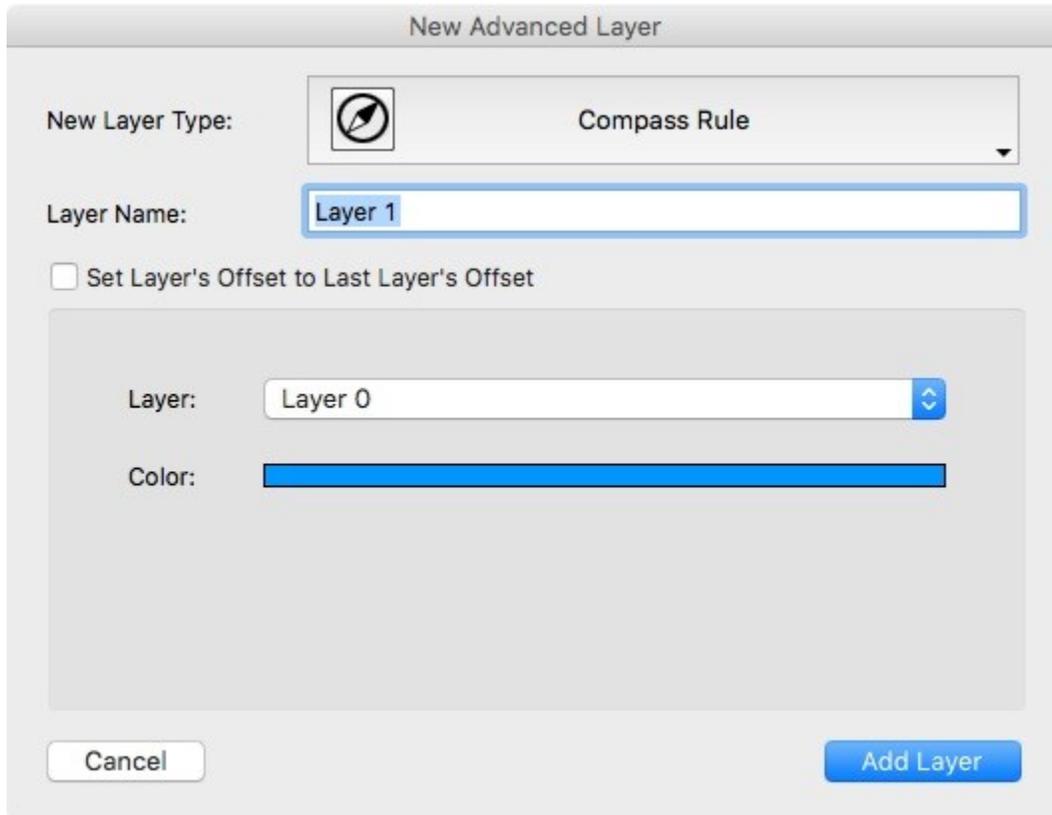


The image shows a software dialog box titled "New Advanced Layer". It contains the following fields and options:

- New Layer Type:** A dropdown menu with a green and orange icon, currently set to "Rotated Layer".
- Layer Name:** A text input field containing "Layer 3".
- Offset:** A dropdown menu set to "None".
- Rotate Layer:** A dropdown menu set to "Layer 0".
- Rotate Clockwise:** A dropdown menu set to "Rotate Clockwise".
- Degrees:** An empty text input field followed by a "Degrees" label and a dropdown arrow.
- Options:** Two checkboxes, "Create Call Labels From Original Calls" and "Retain Leading Calls", both of which are unchecked.
- Keep Original Layer:** A dropdown menu set to "Keep Original Layer".
- Apply New Layer Setting Defaults:** A checked checkbox.
- Buttons:** "Cancel" and "Add Layer" buttons at the bottom.

Compass Rule Layer

This option will create a new layer by applying the Compass Rule to the selected layer. The default colors for this layer will be set to the selected color. The recommended origin setting is Center of Screen.



The image shows a dialog box titled "New Advanced Layer". It contains the following elements:

- New Layer Type:** A dropdown menu with a compass icon and the text "Compass Rule".
- Layer Name:** A text input field containing "Layer 1".
- Set Layer's Offset to Last Layer's Offset**
- Layer:** A dropdown menu with "Layer 0" selected.
- Color:** A color selection bar showing a blue color.
- Buttons:** "Cancel" and "Add Layer".

Reverse Direction Layer

This option will create a new layer by reverse the direction of the calls. For example, if a plot runs clockwise, the new plot layer will run counter-clockwise.

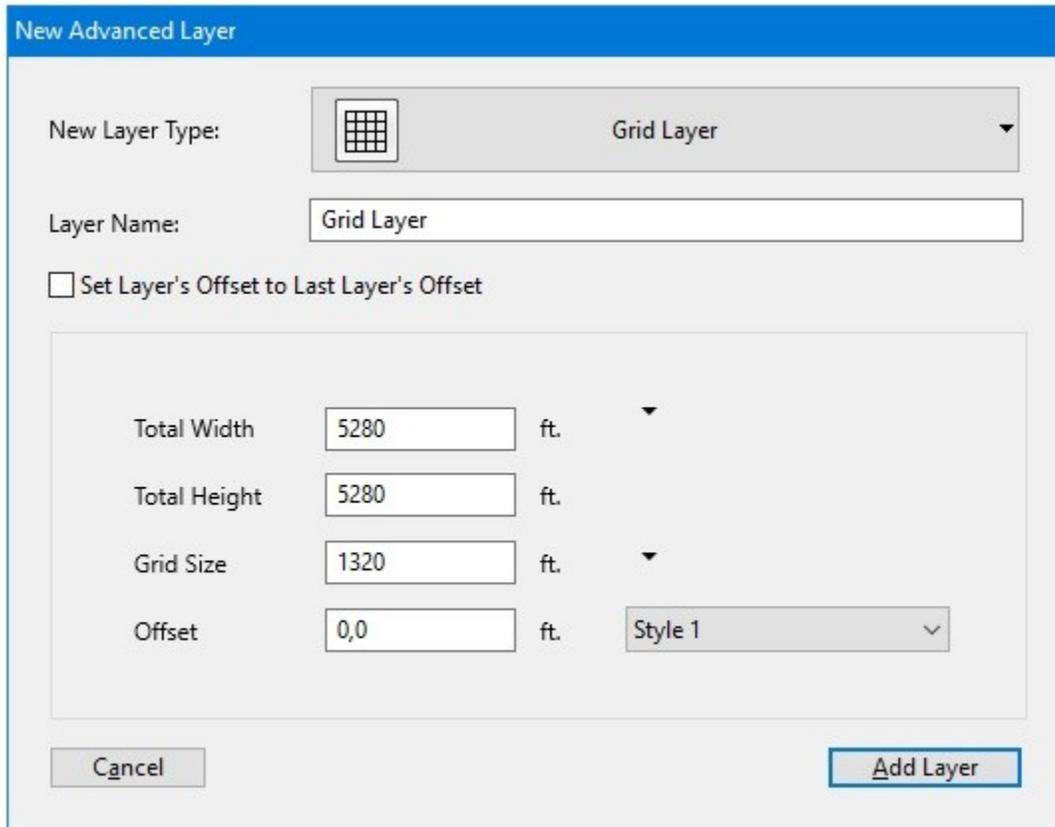
The image shows a dialog box titled "New Advanced Layer". It contains the following elements:

- New Layer Type:** A dropdown menu with an icon of two arrows forming a circle and the text "Reverse Direction".
- Layer Name:** A text input field containing "Layer 0 Reversed".
- Set Layer's Offset to Last Layer's Offset**
- Layer:** A dropdown menu with "Layer 0" selected.
- Retain Leading Invisible Calls**
- Buttons:** "Cancel" and "Add Layer" (highlighted in blue).

Check the Retain Leading Invisible Calls checkbox to have the new layer copy any leading invisible calls from the original layer.

Grid Layer

This option will create a new layer. This layer will contain a grid of the specified width and the specified spacing.



The image shows a software dialog box titled "New Advanced Layer" with a blue header. The dialog is used to create a "Grid Layer".

- New Layer Type:** A dropdown menu with a grid icon and the text "Grid Layer".
- Layer Name:** A text input field containing "Grid Layer".
- Set Layer's Offset to Last Layer's Offset:** An unchecked checkbox.
- Grid Dimensions:** A group box containing:
 - Total Width:** Input field with "5280" and "ft." unit.
 - Total Height:** Input field with "5280" and "ft." unit.
 - Grid Size:** Input field with "1320" and "ft." unit.
 - Offset:** Input field with "0,0" and "ft." unit.
- Style:** A dropdown menu currently showing "Style 1".
- Buttons:** "Cancel" and "Add Layer" buttons at the bottom.

A style of grey lines with blue section boundaries can be selected from the style popup menu.

Center Line Offset

New Advanced Layer

New Layer Type:  Center Line Offset

Layer Name: Layer 0 Center Line Offset

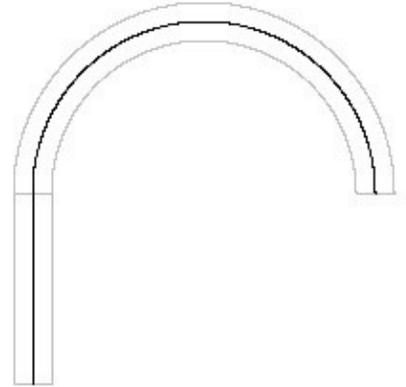
Set Layer's Offset to Last Layer's Offset

Layer: Layer 0 Center Line Offset

Left Offset: 10 Ft. Hide Center Line

Right Offset: 10 Ft. Hide Original Layer

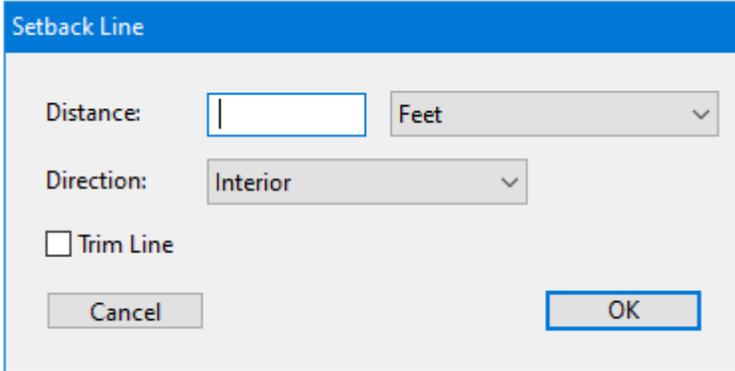
Cancel Add Layer



Enter the left and right offsets.

Setback Layer

To create a setback layer, right click on the layer call that you want to create the setback for. Choose 'Create Setback Line Layer' from the popup menu.



The image shows a dialog box titled "Setback Line" with a blue header. It contains the following fields and controls:

- Distance:** A text input field followed by a unit dropdown menu currently set to "Feet".
- Direction:** A dropdown menu currently set to "Interior".
- Trim Line:** An unchecked checkbox.
- Buttons:** "Cancel" and "OK" buttons at the bottom.

Enter the distance for the setback.

Choose whether you want the line to be created on the interior or exterior of the selected layer.

Select the Trim Line option if you want to trim one or both ends of the line.

Delete Current Layer:

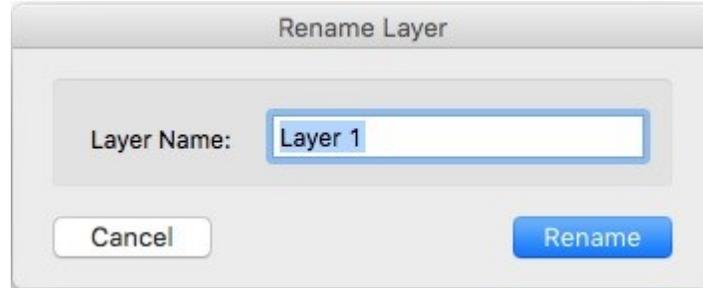
This menu will prompt you to delete the current layer.

Delete Selected Layers:

Selecting this option from the layer option popup menu will allow you to delete multiple layers at once.

Rename Current Layer:

This menu will bring up a form that will let you rename the current layer. Enter a new name and press the Rename button.



The image shows a dialog box titled "Rename Layer". It contains a text input field labeled "Layer Name:" with the text "Layer 1" inside. Below the input field are two buttons: "Cancel" and "Rename".

Duplicate Current Layer:

This menu will duplicate the current layer. The new layer will be placed in the center of the drawing window. The new layer will become the current layer.

Attributes

Layer:

Attribute #	Type	Name	Value
1	Owner	Owner	<input type="text"/>
2	Tax ID	Tax ID	<input type="text"/>
3	Custom	Libre	<input type="text"/>
4	Area Sq Ft		
5	Unused		
6	Unused		
7	Unused		
8	Unused		
9	Unused		
10	Unused		

The Layer Attributes form allows you to assign up to 10 attributes to a layer. These attributes can be searched as well as exported in .SHP and .KML files. Some attribute types, such as Owner, allow you to enter in a value. Other attribute types, such as Area, are calculated automatically.

To edit the master list of attribute types that will be used for all layers, press the Edit button.

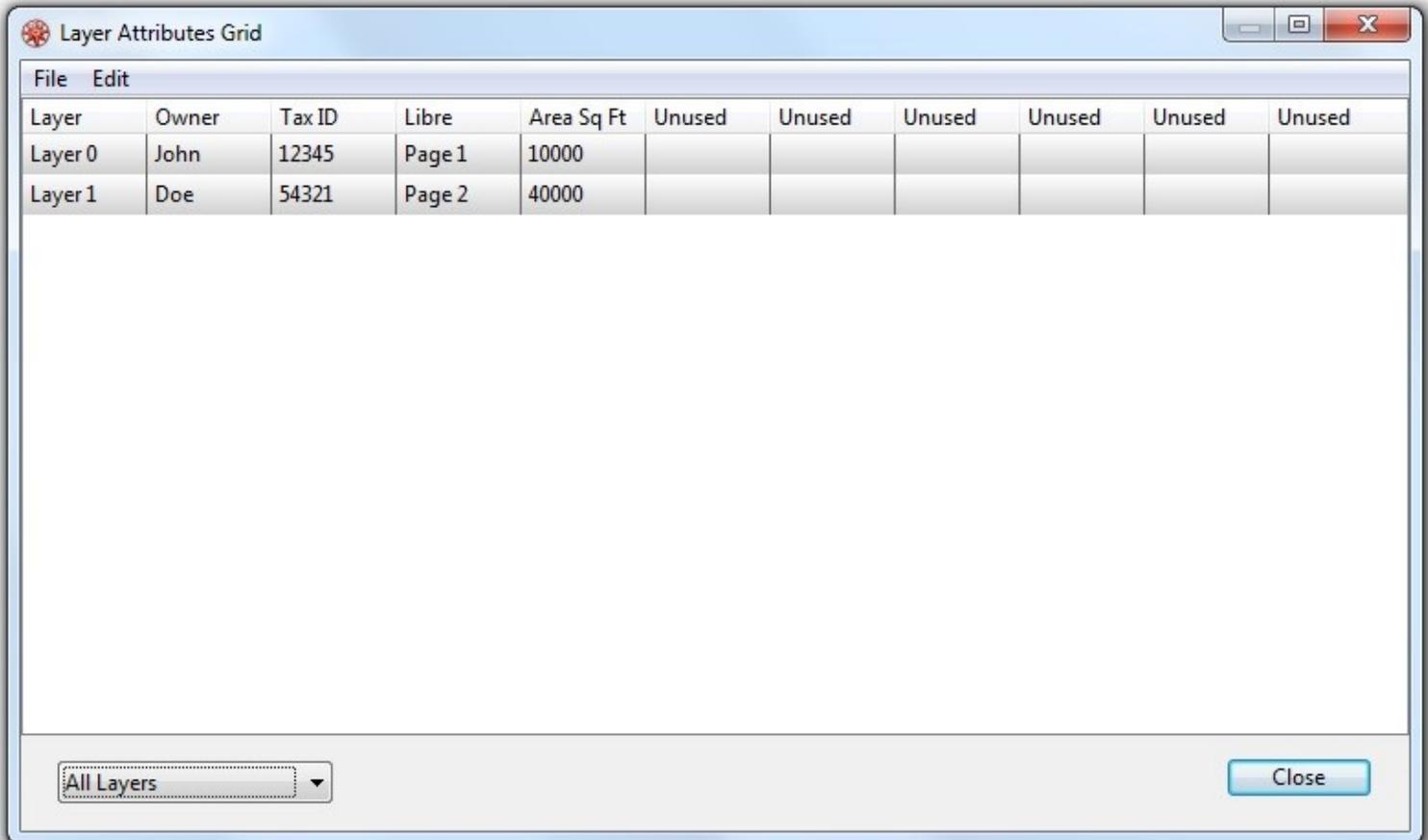
Layer Attributes Configuration

Attribute #	Type	Name
1	Owner	
2	Tax ID	
3	Custom	Libre
4	Area Sq Ft	
5	Unused	
6	Unused	
7	Unused	
8	Unused	
9	Unused	
10	Unused	

Cancel Save & Close

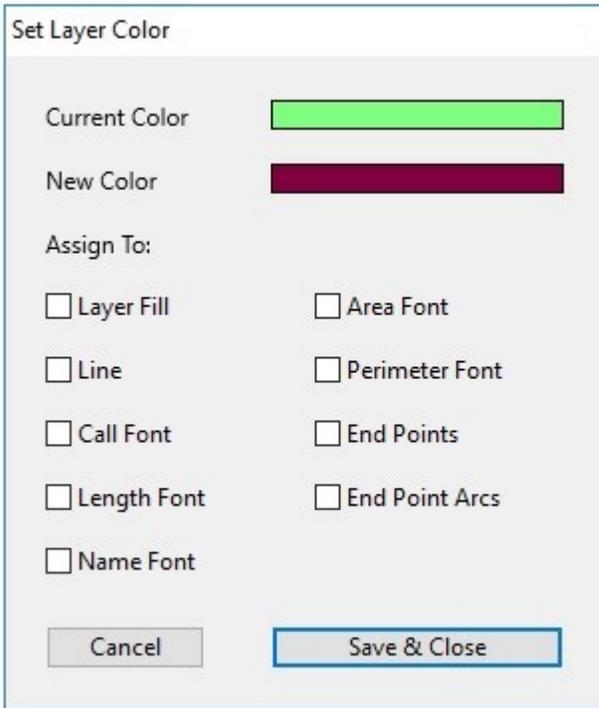
The Layer Attributes Configuration form allows you to set the type for each attribute. If you pick the Custom type, then you will be able to enter a name to use for this type. This name will be displayed on the Layer Attributes form.

Clicking the **View as Grid** button will bring up the Layer Attribute Grid window.



Set Layer Color:

This option gives you the ability to set the layer's color, for all the various color options, in one place.



The image shows a dialog box titled "Set Layer Color". It contains two color selection bars: "Current Color" (yellow) and "New Color" (dark red). Below these are several checkboxes under the heading "Assign To:", including "Layer Fill", "Line", "Call Font", "Length Font", "Name Font", "Area Font", "Perimeter Font", "End Points", and "End Point Arcs". At the bottom are "Cancel" and "Save & Close" buttons.

Option	Checked
Current Color	Yellow
New Color	Dark Red
Layer Fill	<input type="checkbox"/>
Line	<input type="checkbox"/>
Call Font	<input type="checkbox"/>
Length Font	<input type="checkbox"/>
Name Font	<input type="checkbox"/>
Area Font	<input type="checkbox"/>
Perimeter Font	<input type="checkbox"/>
End Points	<input type="checkbox"/>
End Point Arcs	<input type="checkbox"/>

Set Current Layer Origin X,Y:

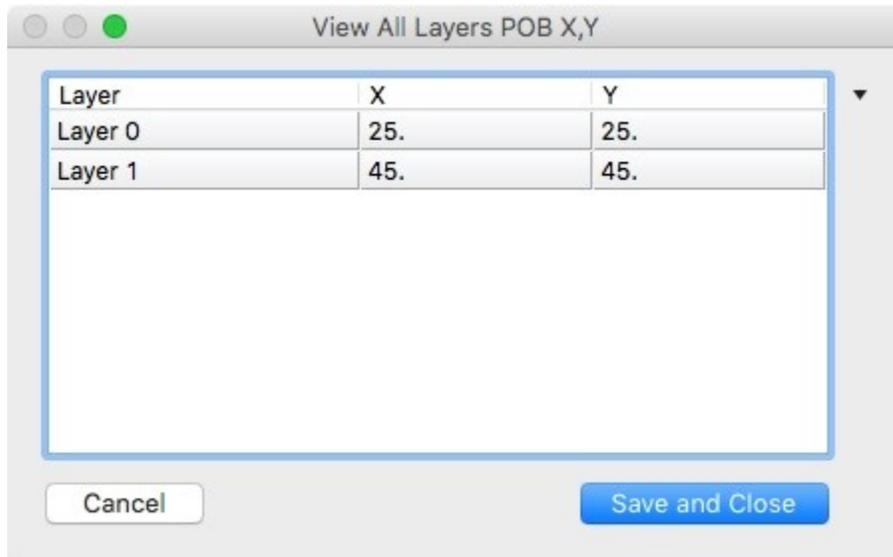
Choosing this option will bring up the following form. It can be used to set the X,Y coordinates for the layer's origin. This has no visual effect on the drawing, but will be used when showing/saving the point coordinates, exporting the current layer as a DXF file and when viewing the endpoint X,Y. This setting also has no effect on the Offset or Origin functions.



The dialog box titled "Origin X,Y" features a dropdown menu at the top with "X,Y" selected and "Lat / Long" as an alternative. Below the menu are two input fields: "X: 0." and "Y: 0.". At the bottom, there are "Cancel" and "Save and Close" buttons.

Enter the X and Y coordinates and press the Save and Close button.

You can also view origin X,Y for all layers at once by selecting View All Layers from the Options menu. Doing so will bring up the following form:



The dialog box titled "View All Layers POB X,Y" contains a table with three columns: "Layer", "X", and "Y". The table has two data rows: "Layer 0" with X=25. and Y=25., and "Layer 1" with X=45. and Y=45.. Below the table are "Cancel" and "Save and Close" buttons.

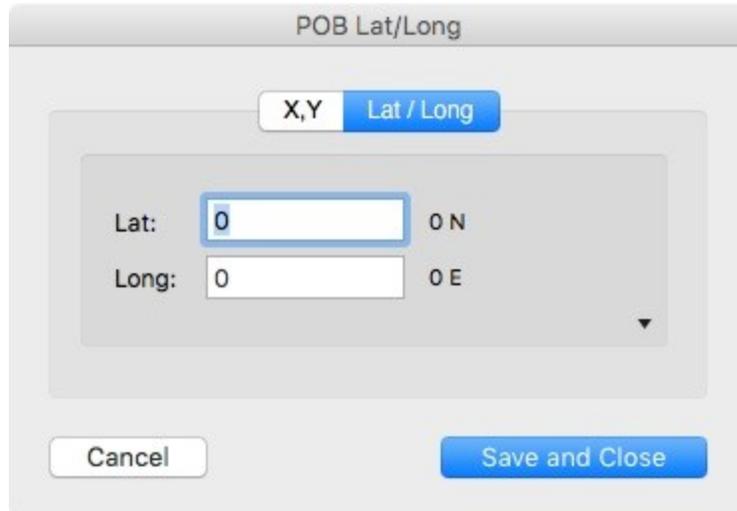
Layer	X	Y
Layer 0	25.	25.
Layer 1	45.	45.

The X, Y values can be edited on this form by clicking in any X, Y cell and entering a new value.

A set of x,y coordinates can be applied to all layers by choosing the option from the popup menu widget.

Set Current Layer POB Lat/Long:

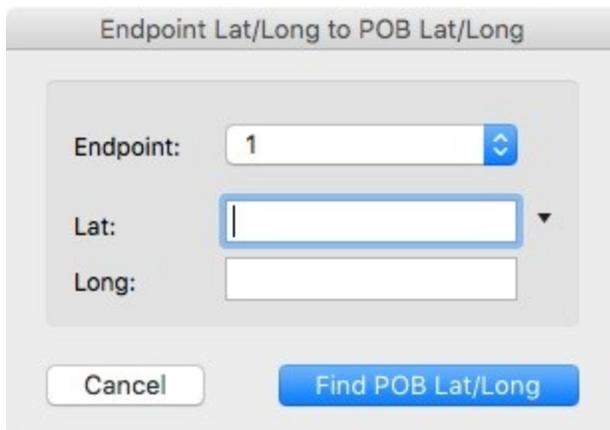
Choosing this option will bring up the following form. It can be used to set the latitude and longitude coordinates for the POB. This has no visual effect on the drawing, but will be used by the various other Lat/Long functions as a starting point offset.



Enter the latitude and longitude coordinates and press the Save and Close button.

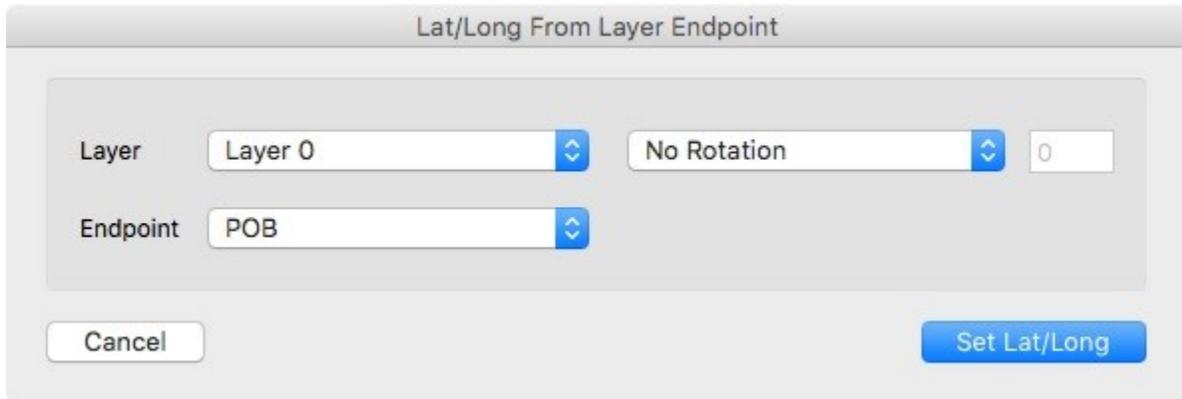
Clicking the menu popup widget provides additional options for setting the POB's lat/long.

- Find POB Lat/Long From Endpoint Lat/Long

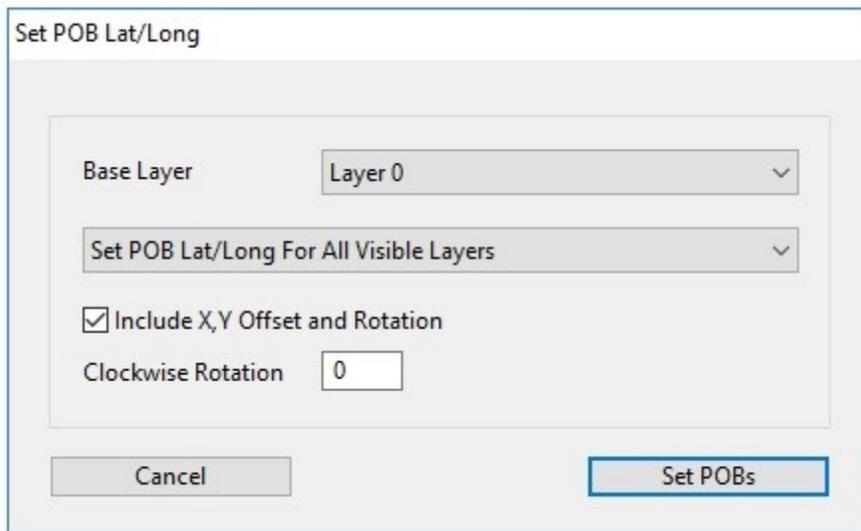


- Choose the endpoint that you know the lat/long for from the endpoint menu and enter its lat/long. Press the Find POB Lat/Long button. This will close the current form and populate the POB Lat/Long form with the POB's lat/long values.

- Find Lat/Long From Layer Endpoint

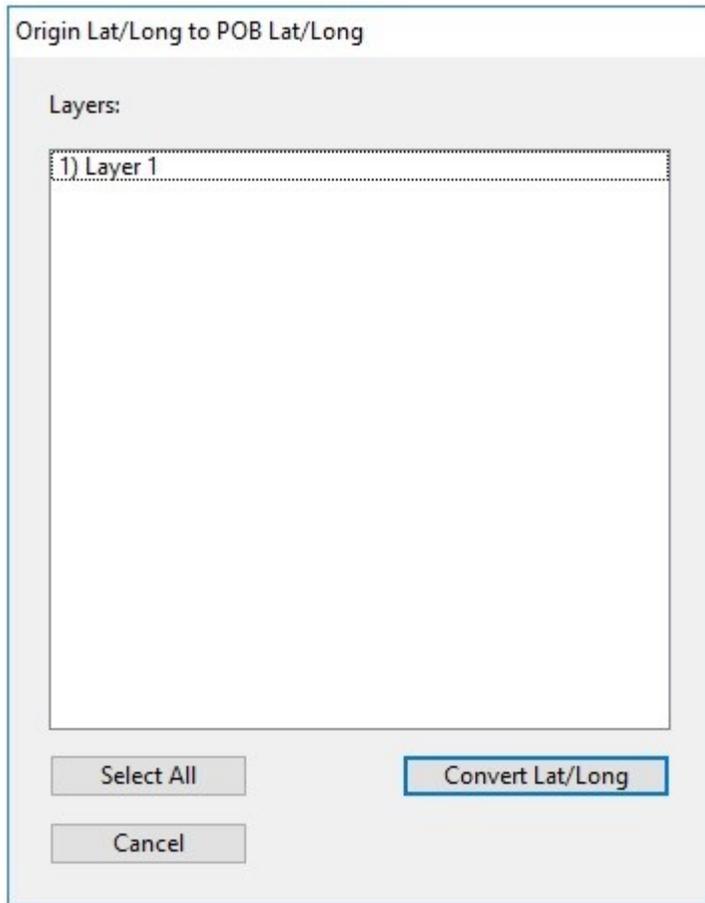


- You can also choose to rotate the selected layer prior to calculating the layer's lat/long values.
- Lat/Long From UTM
 - See [UTM To Lat/Long Calculator](#) under Calculate menu.
- Set Other Layers POB Lat/Long



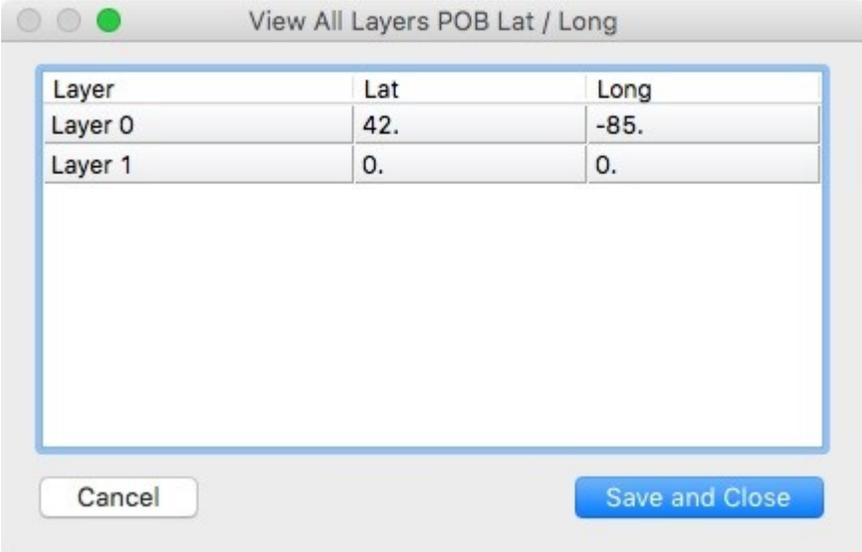
- Allows you to set the POB Lat/Long values for other layers. Rotation/Declination can optionally be applied.

- Convert Origin Lat/Long to POB Lat/Long



- Convert a layer's Origin lat/long value to the layer's POB Lat/Long.
- Find POB Lat/Long from Origin Lat/Long
 - If the drawing's origin has a lat/long value set, this will set the layer's lat/long based on the layers location on the drawing relative to the drawing's origin.

- You can also view origin Lat/Long for all layers at once by selecting View All Layers from the Options menu. Doing so will bring up the following form:



The screenshot shows a dialog box with the title "View All Layers POB Lat / Long". It contains a table with three columns: "Layer", "Lat", and "Long". The table has two rows of data: "Layer 0" with "42." in the "Lat" column and "-85." in the "Long" column, and "Layer 1" with "0." in both the "Lat" and "Long" columns. Below the table, there are two buttons: "Cancel" on the left and "Save and Close" on the right.

Layer	Lat	Long
Layer 0	42.	-85.
Layer 1	0.	0.

Offset Current Layer

- * Each layer can be moved around by using the mouse.
- * Holding down the shift key while dragging a layer allows you to drag all of the unlocked layers at once.
- * Holding down the shift and control keys will bring up scrollbars that can be used to move all layers, including locked layers, at the same time. This allows you to move all of the layers even if there is no layer visible to grab. This can be useful for "scrolling" around the drawing while the scale setting is zoomed in.



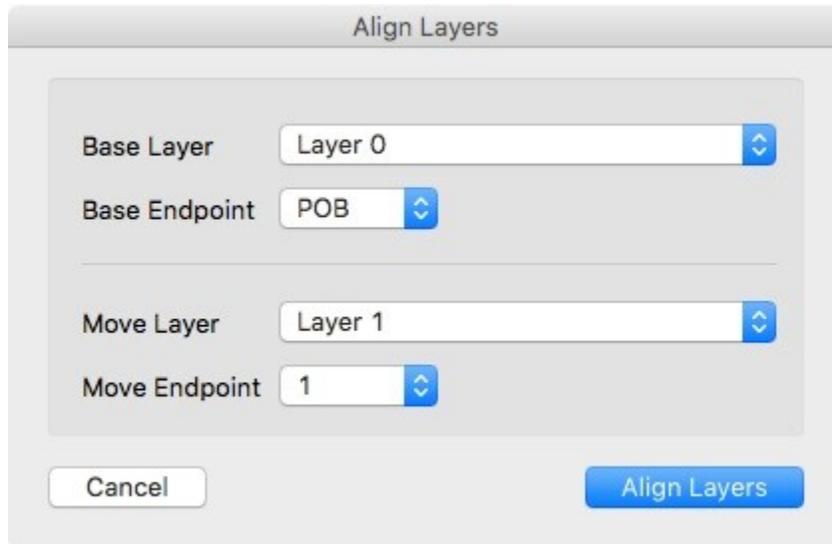
The Offset window can be used to nudge a layer 1 pixel at a time or it can set a layers offset to the same offset as another layer. It can also return a layer to its point of origin. The origin setting can be set in the Drawing Options.

Set All Layers to Origin:

This menu option will return all of the unlocked layers offsets back to zero.

Align Layers by Endpoints:

This form will allow you to align layers via their endpoints. Note: This option is not available for drawing's with their origin set to Auto-Center.



The image shows a dialog box titled "Align Layers". It contains four dropdown menus arranged in two pairs. The first pair is for the "Base Layer", with "Layer 0" selected. The second dropdown is for the "Base Endpoint", with "POB" selected. The second pair is for the "Move Layer", with "Layer 1" selected. The third dropdown is for the "Move Endpoint", with "1" selected. At the bottom of the dialog, there are two buttons: "Cancel" on the left and "Align Layers" on the right.

Select a base layer. This layer will not move. When you select a layer, it's endpoints will be numbered on the main drawing. Select a base endpoint. This is the endpoint that the 'move layer' will move to. Select a move layer. This is the layer that will move to the selected base endpoint. Select the move endpoint that you want to line up with the base endpoint. Press the Align Layers button.

Align Layers by Lat/Long:

This form will allow you to align layers via their POB Lat/Long values. Note: This option is not available for drawing's with their origin set to Auto-Center.

The image shows a software dialog box titled "Align Lat/Long". It has a blue header bar with the title. Below the header, the word "Edit" is displayed. The dialog is organized into several sections. The first section is "Drawing Origin Lat/Long", which contains two input fields: "Lat:" and "Long:". The "Lat:" field has a small dropdown arrow to its right. A "Set" button is located to the right of the "Long:" field. The second section is "Align Layers:", which features a dropdown menu currently showing "All Layers" and a checked checkbox labeled "Skip Locked Layers". The third section is "Create:", with a dropdown menu showing "Preceding Call". The fourth section is "X,Y Offset:", with a dropdown menu showing "Clear X,Y Offset". At the bottom of the dialog, there are two buttons: "Cancel" on the left and "Align Layers" on the right, which is highlighted with a blue border.

Origin Lat/Long:

This is the Lat/Long to use for the drawing's origin. You can pick this value from a layer's POB Lat/Long by clicking on the popup menu widget. Pressing the Set button will store the Lat/Long value as the drawing's origin lat/long.

Align Layers:

This popup menu lets you choose which layers to align. The checkbox lets you skip or include locked layers.

Create:

- Preceding Call - This will create a new, invisible starting call for each selected layer from the Origin's POB to each layer's Lat/Long POB.
- X,Y Offset - This will change the x,y offset of each selected layer from the Origin's POB to each layer's Lat/Long POB.

X,Y Offset:

This option allows you to clear each layer's existing x,y offset, keep the existing x, y offset or set the offset to a specific layer's x,y offset.

Align Current Layer Endpoint to Layer Call:

This option will allow you to allow an endpoint on the current layer to a call line on another layer.

The screenshot shows a dialog box titled "Align Call Point with Layer Call". The dialog is divided into two main sections. The top section contains the following fields:

- Current Layer:** New Building
- Current Layer Call:** N 0 E 40
- Call Point:** Start Point
- Setback:** 0 ft.

The bottom section contains:

- Align To Layer:** Property Line
- Align To Call:** S 1:30:6 W 398.49

At the bottom of the dialog are two buttons: "Cancel" and "Align".

Select the current layer's call that you want to align.

Select which point on the call that you want to align. The options are Starting Point, Mid-Point or Ending Point.

You can enter an optional setback distance in feet.

Select the layer that you want to align to.

Select the call line on that layer which you want to align to.

Convert Current Layer Offset to Call:

The option will convert the current layer's offset into an invisible metes and bounds call.

Current Layer Closure Tools:

Convert Auto Completion to Call

This command is similar to the Auto Complete layer option. But instead of just drawing the completing line, this option will create a new call that will close the plot and append it to the call list.

Adjust Closing Error

Minimize Closure Gap

This layer closes within 11.18034 feet with an angle of 26.565051 degrees.
Closing Call: S 26:33:54 W 11.1803
Closure/Perimeter Ratio: 1/34

Minimize Gap by Adjusting Length of Call:

N 0 E 100
N 90 E 100
S 0 E 90
N 90 W 95

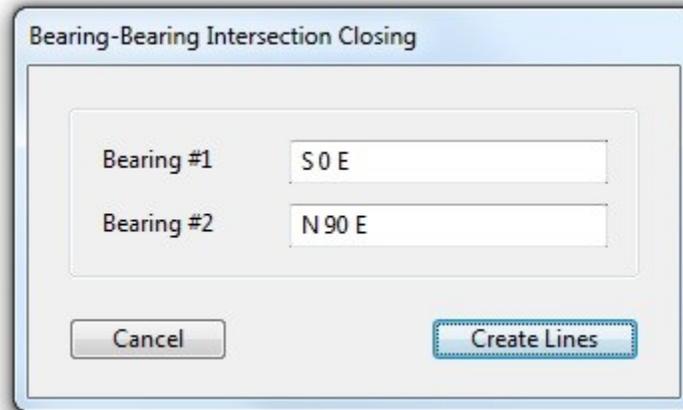
Interval: 1 Foot

Close Adjust Line

This form allows you to minimize a closure error by adjust the length of a line until the closure gap is at its smallest.

Select the line that you want to adjust. Select an interval. The interval is how large or small of increments the software will use to close the gap. Then press the Adjust Line button.

Bearing-Bearing Intersection



Bearing-Bearing Intersection Closing

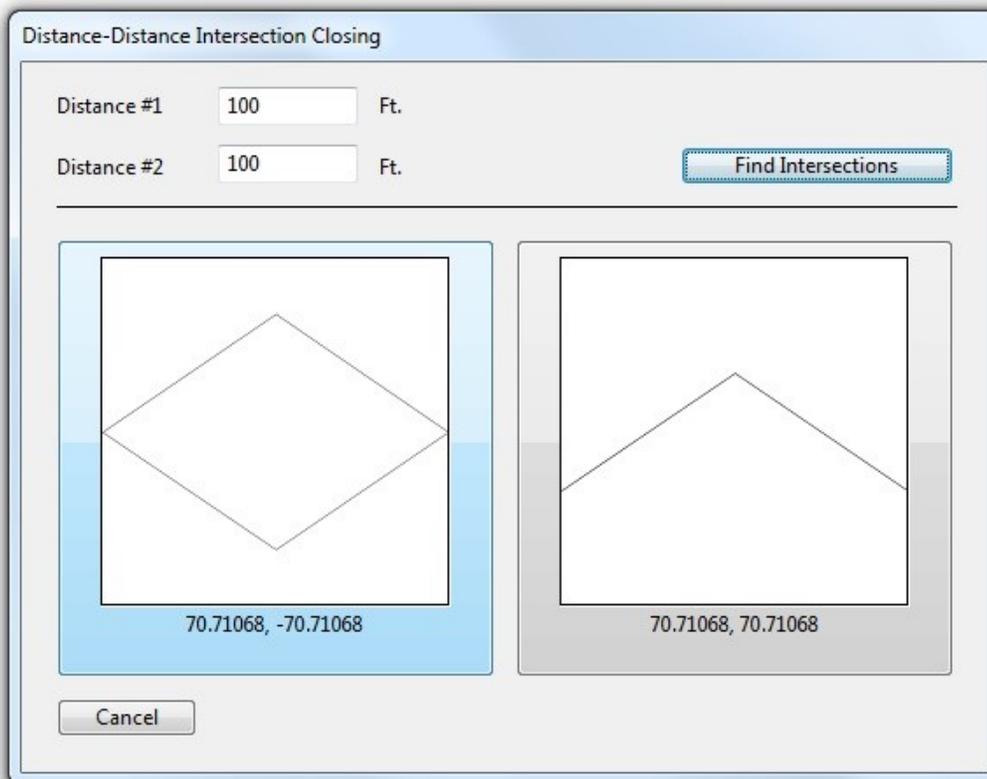
Bearing #1 S 0 E

Bearing #2 N 90 E

Cancel Create Lines

This form allows you to enter in bearings for the last two lines. Enter in the two bearings without entering a distance.

Distance-Distance Intersection



Distance-Distance Intersection Closing

Distance #1 100 Ft.

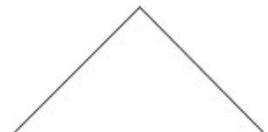
Distance #2 100 Ft.

Find Intersections

70.71068, -70.71068

70.71068, 70.71068

Cancel



This form allows you to enter in two distances for the last two lines. Press the Find Intersections button to see the two possible choices. Select the choice that you were looking for.

Split Current Layer

Split Tool:

You can use this feature to turn a single layer into two plots. First, choose the call where you want to start the split.

Split Plot

First Marker:

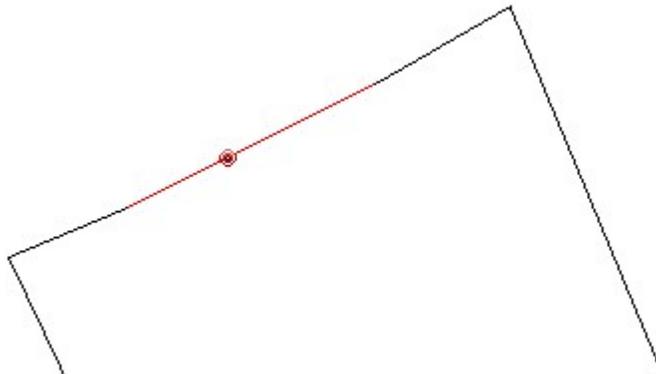
- N 0 E 100
- N 90 E 100**
- S 0 E 100
- N 90 W 100

Segment 1: S 90 E 42

Segment 2: S 90 E 58

Cancel Next

Next, move the slider to the desired point in the line where you would like the split to occur. A red bull's-eye will appear on the main drawing to show you where the line will be split. You can also use the ▼popup menu arrow to set the line lengths to the desired values. Press the Next button to choose the ending marker for the split.



Now choose the call for the other end of the split.

Split Plot

Last Marker:

- N 0 E 100
- N 90 E 100
- S 0 E 100
- N 90 W 100

Find Nearest Half

Slider

Square Feet

Plot #1: 4,599.98 sq. ft.
Plot #2: 5,399.98 sq. ft.

Segment 1: N 90 W 50
Segment 2: N 90 W 50
Split Line: N 4:34:26 W 100.3195

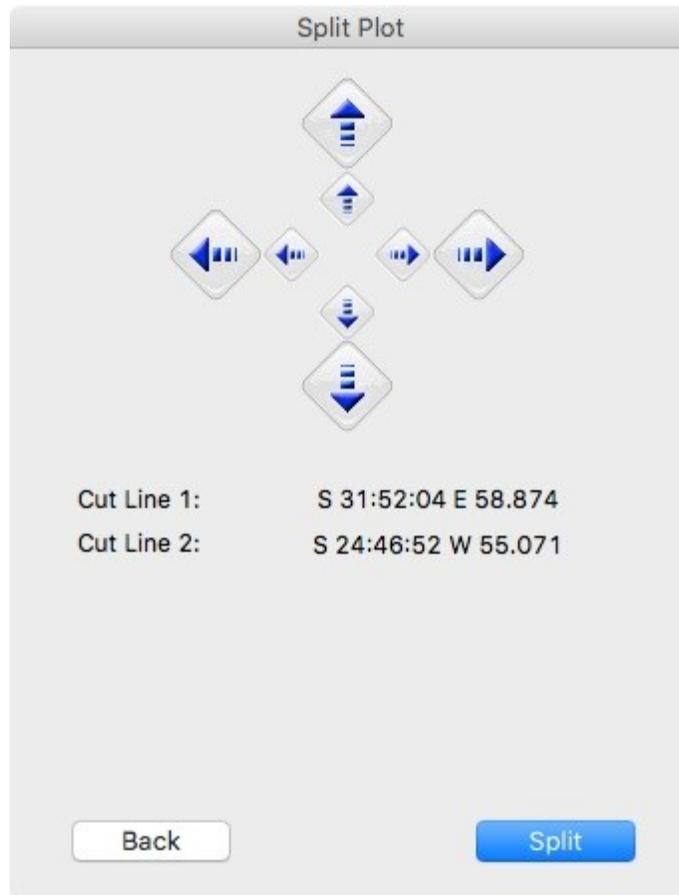
Back 3rd Point Split

Move the slider to choose the second split point. Or, if you select the Find Nearest Half checkbox, the program will find the point on the 2nd line where the two new plots are closest to having the same area. You can also use the ▼popup menu arrow to enter in precise values.

You can view the new plots area either in square feet or in acres.

Press the Split button to create your two new plots. The two new layers will be added to your drawing if you have the Pro edition, or two new windows will be created if you have the Basic edition.

If you press the 3rd Point button instead of pressing the Split button, the software will create a 3rd point at the center point of the new cut line. You can then create 2 lines for the cut line instead of just one line.



Use the large arrows to move the 3rd point in 1 foot increments and the small arrows to move the point in 1 inch increments. The 3rd point will not be allowed to move outside of the plot's boundary.

Link Layers:

Selecting this option from the layer option popup menu will allow you to link layers together in a parent/child relationship. Moving the parent will cause the child layers to move as well.

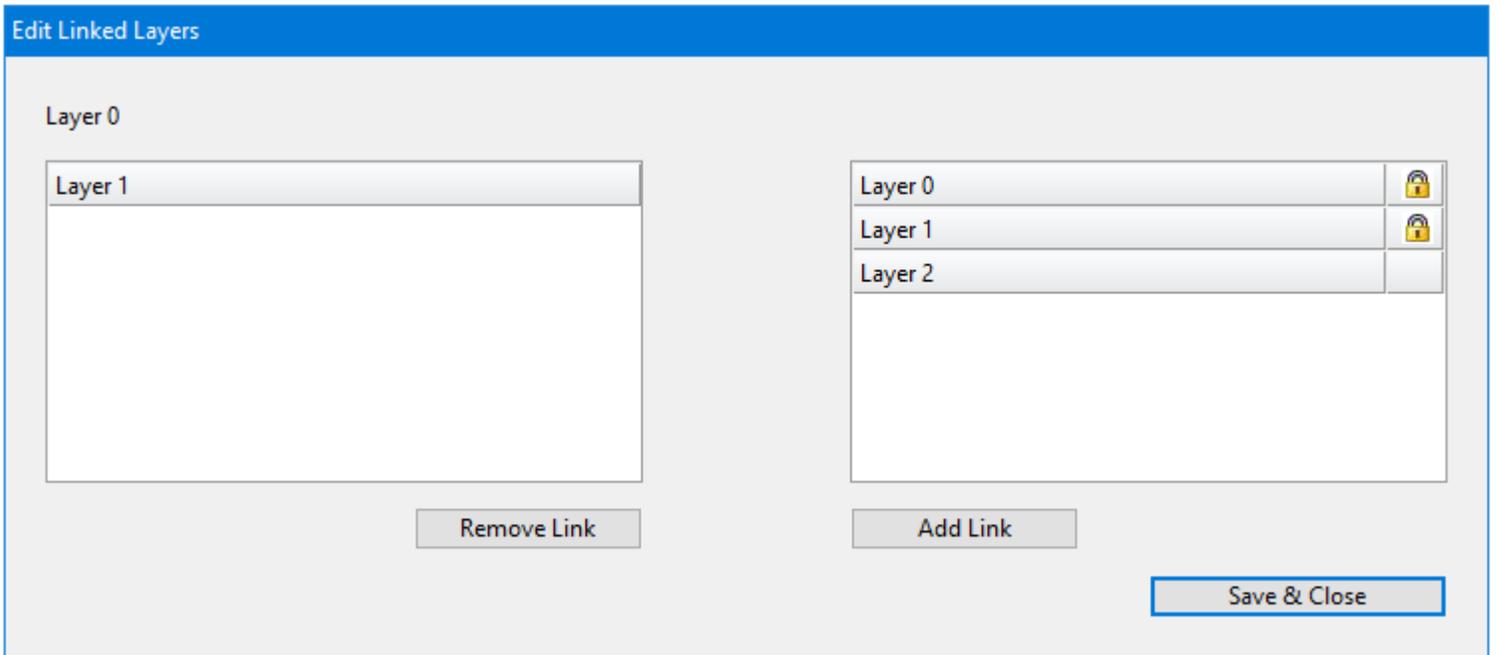
Linked Layers

Layers

Layer	Parent	Children	Edit
Layer 0		Layer 1	
Layer 1	Layer 0		
Layer 2			

Close

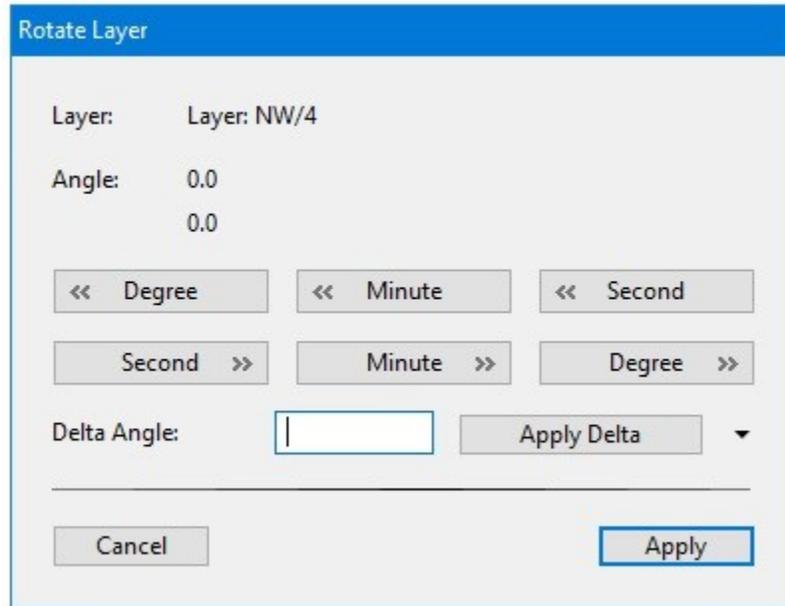
Click the parent icon  to bring up the Edit Linked Layers window. This allows you to add or remove child layers from the parent.



Click the child icon  to remove a child from its parent.

Click the add link icon  to add this layer as a child to another layer or to add other layers to this layer as children.

Rotate Current Layer



The screenshot shows a dialog box titled "Rotate Layer" with a blue header. The dialog contains the following elements:

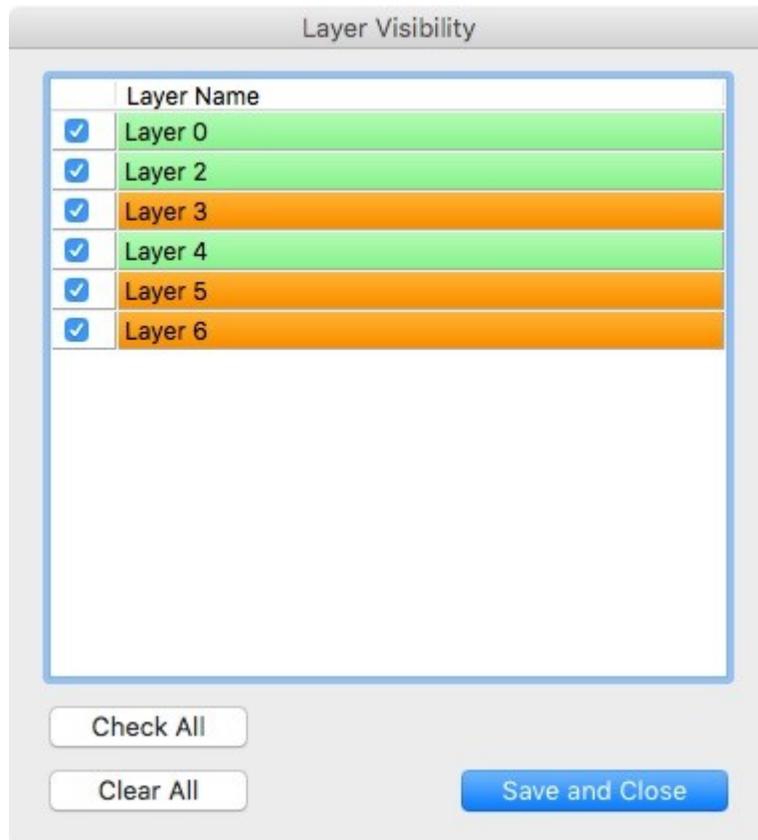
- Layer: Layer: NW/4
- Angle: 0.0
0.0
- Navigation buttons: << Degree, << Minute, << Second, Second >>, Minute >>, Degree >>
- Delta Angle: [input field], Apply Delta [dropdown arrow]
- Cancel [button], Apply [button]

This feature will allow you to rotate the current layer and see the rotation on the drawing as you make the rotation adjustments.

Set Non-Current Layers Invisible will uncheck each layer's visibility checkbox except for the current layer. This will cause all of the layers, other than the current layer to become invisible.

Set All Layers Visible will check each layer's visibility checkbox. This will cause all of the layers to become visible.

Manage Layer Visibility. Choosing this menu will bring up the Layer Visibility form where you can set all of the layers visibility in one place.



The image shows a dialog box titled "Layer Visibility". It contains a table with a header "Layer Name" and six rows. Each row has a checkbox on the left and a layer name on the right. The rows are: Layer 0 (green background), Layer 2 (green background), Layer 3 (orange background), Layer 4 (green background), Layer 5 (orange background), and Layer 6 (orange background). All checkboxes are checked. Below the table are three buttons: "Check All", "Clear All", and "Save and Close".

	Layer Name
<input checked="" type="checkbox"/>	Layer 0
<input checked="" type="checkbox"/>	Layer 2
<input checked="" type="checkbox"/>	Layer 3
<input checked="" type="checkbox"/>	Layer 4
<input checked="" type="checkbox"/>	Layer 5
<input checked="" type="checkbox"/>	Layer 6

Check All Clear All Save and Close

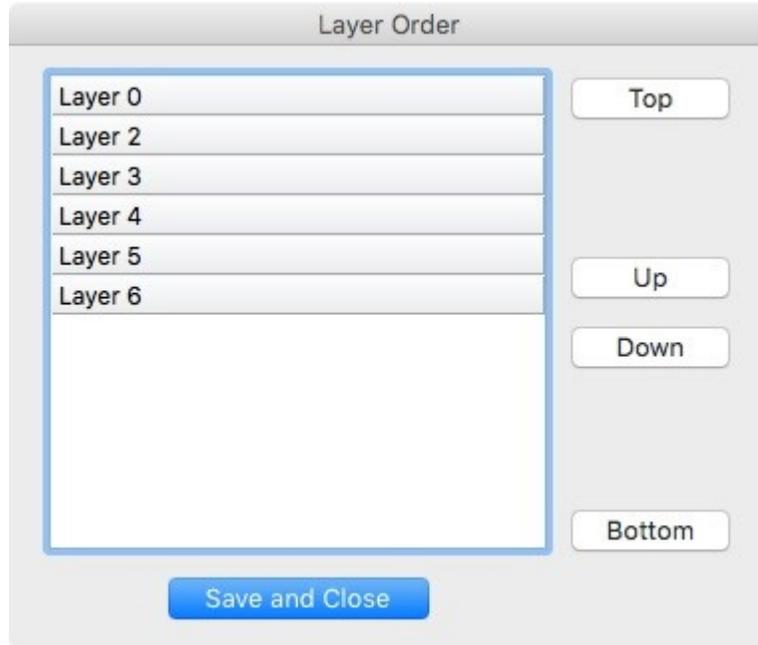
Check or clear each checkbox to set that layer's visibility.

Press the Check All button to make all layers visible.

Press the Clear All button to make all layers invisible.

Layer Order:

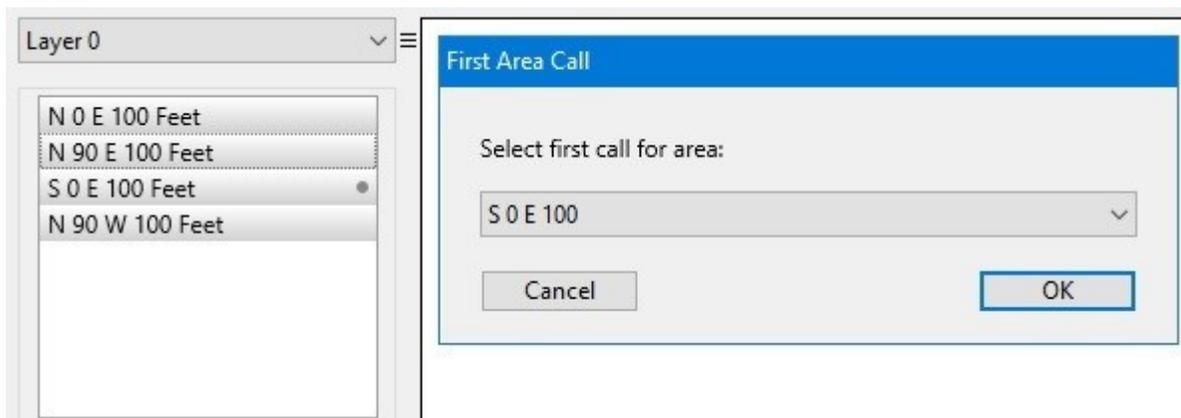
You can change the order of the layers in the layer popup menu by choosing Change Layer Order. Changing the order will change the order in which the layers are rendered on the screen. The first layer in the list will be drawn first and the last layer in the list will be drawn last.



To change a layer's order, select the layer in the list and press either the Up button or the Down button. Press the Save and Close button to commit any changes and to close the form.

Layer Area Starting Call:

You can change which visible call the layer area calculation starts with by choosing Change Layer Area Starting Call from the layer option popup menu.



Select the call that you want to start the area calculations with. This call will be marked in the call list by a small gray circle.

Lock Non-Current Layers. Choosing this option will mark all of the layers, other than the current layer, as locked.

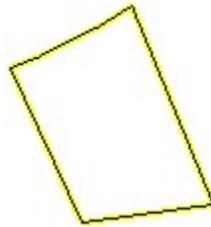
Unlock All Layers. Choosing this option will mark all of the layers, including the current layer, as unlocked.

Hide Non-Current Layers. When this menu option is checked, selecting a layer from the layer popup menu will cause all of the other layers to be hidden. This makes it so that only one layer is visible at a time. The other layer's visibility setting is not effected.

Hide Non-Current Layer Endpoints. When this menu option is checked, only the current layer's endpoint data is shown. This checkbox does not affect the other layer's endpoint settings.

Highlight Current Layer:

This option will cause the current layer to be drawn with a yellow highlight around it.

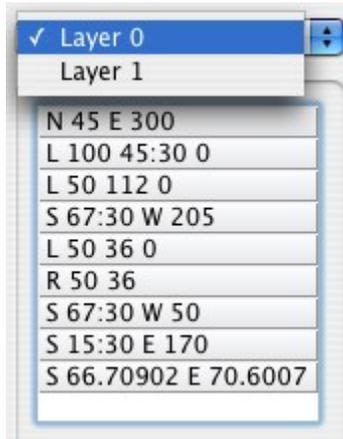


Highlight Drawing's Origin:

This option will highlight the drawing's origin with a red circle. The origin is not highlight if the origin is set to Auto-Center.

Selecting the Current Layer:

To select a layer, choose it from the layer selection menu on the main window.



When you select a new layer, it will become the current layer. All of the layer's calls will be shown in the call list and all of the layer's options will be set in the layer options area.

You can also select a current layer by right clicking on the layer itself or the layers floating call list (if visible) in the drawing and choosing the Make Current Layer option.

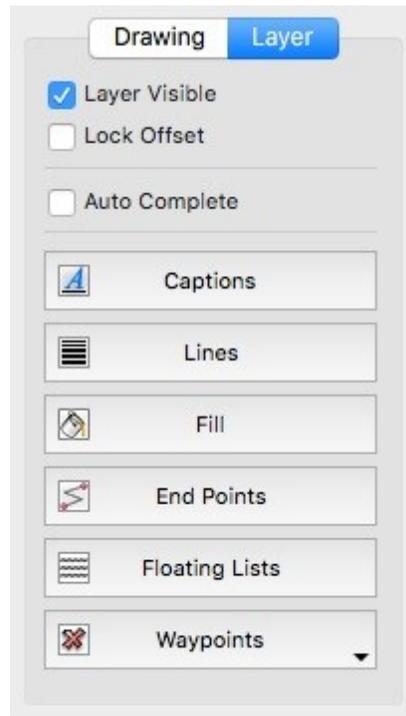
Edit Menu Layer Options:

- **Copy Drawing as Picture** - This will place a copy of the current screen picture onto the clipboard.
- **Copy Current Calls** - This will copy the calls of the current layer onto the clipboard.
- **Paste Calls as New Layer** - This will allow you to create a new layer and paste the copied calls into that new layer.
- **Paste Calls into Current Layer** - This will paste a set of copied calls into the current layer. The calls will be added at the insertion point.

Holding down the Shift key while selecting the Edit menu will change this option to Paste Clipboard Text as Call List. This will take the text on the clipboard and paste it as a list of calls. Each call must already be formatted as a valid call. This is a quick way to paste calls from another text document that had been previously copied and pasted from Metes and Bounds.

- **Clear Current Calls** - This will clear the current layer's call list. This is the equivalent of selecting each call and pressing the Remove button.

Layer Options

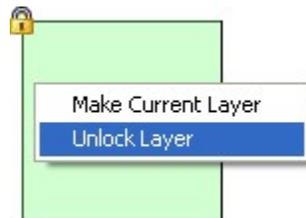


Layer Visible

This will toggle the layer's visibility.

Lock Offset

When this box is checked, the layer's offset will be locked. This means that it cannot be moved, either by the mouse or by the offset form. If a layer is locked, it will be shown with a lock icon in the main drawing. This setting can also be set/cleared by right clicking on a layer and choosing Lock/Unlock Layer from the popup menu.

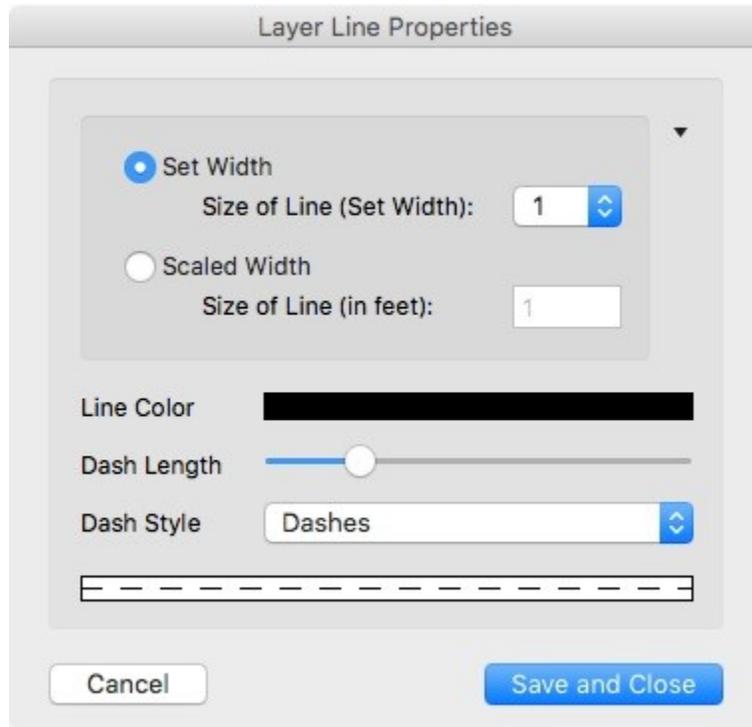


Auto Complete

If a plot's description does not contain a closing line, checking this box will draw the completing line.

Lines

Pressing the Lines button will bring up the Layer Line Properties form.



The image shows a dialog box titled "Layer Line Properties". It contains several controls for configuring layer lines:

- Set Width:** A radio button is selected. Below it is a label "Size of Line (Set Width):" followed by a spinner box containing the number "1".
- Scaled Width:** A radio button is unselected. Below it is a label "Size of Line (in feet):" followed by a text input box containing the number "1".
- Line Color:** A black color bar.
- Dash Length:** A horizontal slider with a white knob.
- Dash Style:** A dropdown menu showing "Dashes". Below the menu is a preview of a dashed line.
- Buttons:** "Cancel" and "Save and Close" buttons are at the bottom.

Set Width:

This option will always draw the layer lines with a pen width of 1, 2 or 3.

Scaled Width:

This option will draw the layer lines with a pen width that is scaled at the selected feet.

Line Color:

Clicking on the colored bar will let you choose the color used to draw the layer's lines with.

Dash Length:

Move the slider to change the dash length that the layer's calls will be drawn with.

Dash Style:

Choose an option from the popup menu to change the dash style.

Captions and Labels

Pressing this button will bring up the Layer Captions and Labels form.

Layer Captions and Labels

Captions Call Labels Point Labels

Show Lengths as Feet Length Font In-Line

Show Calls as Feet Call Font Horizontal

Show Layer Name Layer Name Font

Show Layer Area Acres Layer Area Font 0°

Show Layer Perimeter Layer Perimeter Font

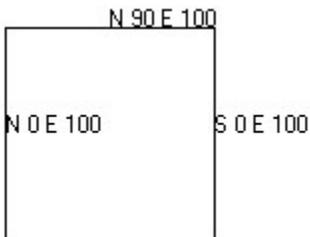
Cancel Close

The **Show Lengths** option will draw the line lengths on the drawing. You can choose the unit of measurement from the measurement menu. If the In-Line checkbox is checked, then the lengths will be drawn in-line with the lines.

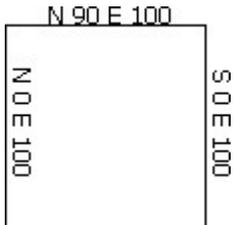
Pressing any of the Font buttons will bring up a font dialog that will allow you to choose the font style used for the chosen caption.

If the **Show Calls** checkbox is selected, the calls will be drawn on the lines. You can choose the unit of measurement from the measurement menu. There are several option for showing the calls:

- If Line #s Only is selected, then only the call's line number will be drawn.
- If Line #s and Calls is selected, then both the line number and call will be drawn.
- If Angle/Length is selected, then the call angle and the call length will be drawn on separate lines.
- If Label Only is selected, then only the label assigned to that call will be drawn.
- If Length Only is selected, then only the call's length will be drawn.



- If In-Line is selected, then the calls will be drawn in-line with the lines.
- In-Line Staggered will alternate if the call is drawn above or below the line, for every other call.
- In-Line Reduced will reduce the call information shown based on the size of the line. The call will reduce from the full call, to just the call number, to nothing based on the size of the line.



Show Layer Name

This option will have the layer draw it's caption in the center of the plot. The angle of the layer name can be adjusted using the angle up/down buttons. The angle setting is shared with the Layer Area.

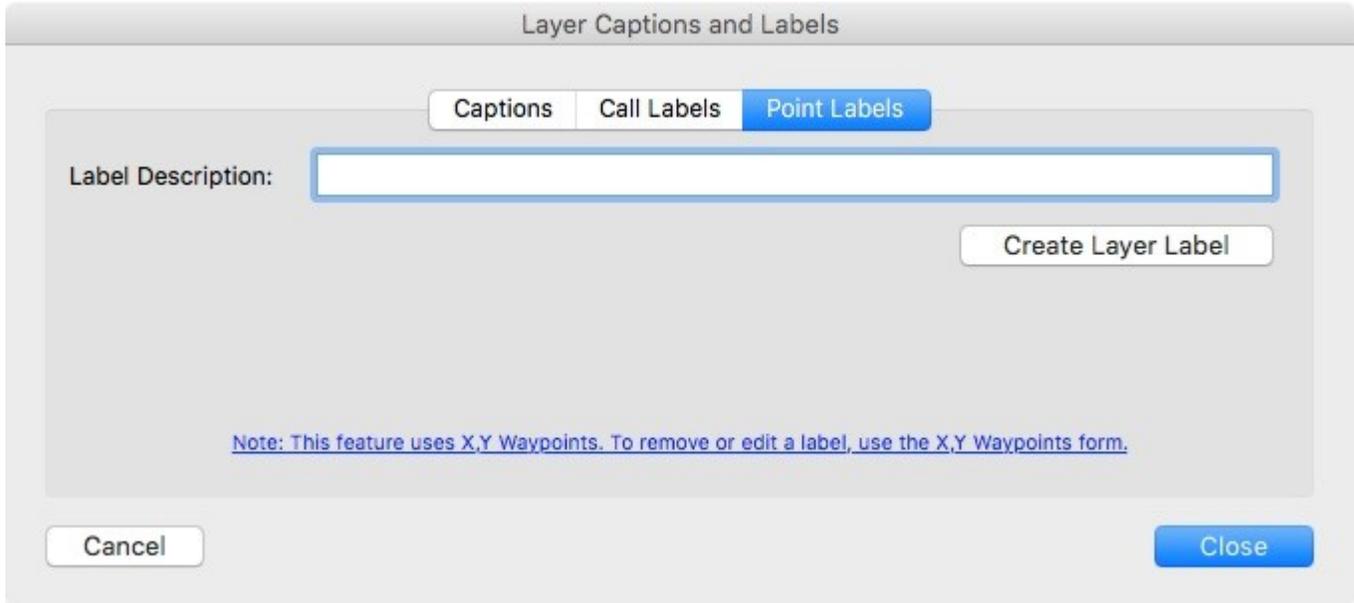
Show Layer Area

This option will have the layer draw it's area in the center of the plot. It will be drawn below the layer's name if visible. You can choose to show the area in acres or square feet. The angle of the layer area can be adjusted using the angle up/down buttons. The angle setting is shared with the Layer Name.

Show Layer Perimeter

This option will have the layer draw it's perimeter in the center of the plot.

Point Labels



The screenshot shows a dialog box titled "Layer Captions and Labels". At the top, there are three tabs: "Captions", "Call Labels", and "Point Labels", with "Point Labels" being the active tab. Below the tabs, there is a "Label Description:" label followed by a large, empty text input field. To the right of the input field is a "Create Layer Label" button. At the bottom of the dialog, there are "Cancel" and "Close" buttons. A note at the bottom of the main content area reads: "Note: This feature uses X,Y Waypoints. To remove or edit a label, use the X,Y Waypoints form."

The Point Labels tab is a secondary interface to adding [X,Y Waypoints](#). It is designed to make adding layer based labels easier than using the [X,Y Waypoints form](#) directly.

To add a Point Label, enter the label's caption in the text box and press the Create Layer Label button. This will create an X,Y Waypoint with no icon and set the description field to show. All labels created this way will have their X,Y points set to 0,0.

Call Labels

The screenshot shows a software dialog box titled "Layer Captions and Labels". It has a menu bar with "Edit" and "Options". Below the menu bar are three tabs: "Captions", "Call Labels" (which is selected), and "Point Labels". The main area contains a table with four columns: "#", "Call", "Label", and "Note". The table has four rows of data. Below the table is a checkbox labeled "Only show calls with labels." which is currently unchecked. At the bottom left, there is a text instruction "Click on a label to edit it." and at the bottom right, there is a "Close" button.

#	Call	Label	Note
1	N 0 E 100 Feet		
2	N 90 E 100 Feet		
3	S 0 E 100 Feet		
4	N 90 W 100 Feet		

Only show calls with labels.

Click on a label to edit it. Close

Allows you to edit the label for each call. Call labels can also be edited by right-clicking on the call in the main call list and selecting Set Call Label from the popup menu.

Check the "Only show calls with labels" checkbox to limit the calls shown to only the calls that already have a label defined.

You can also give each call a note. Notes will not automatically show up on the drawing.

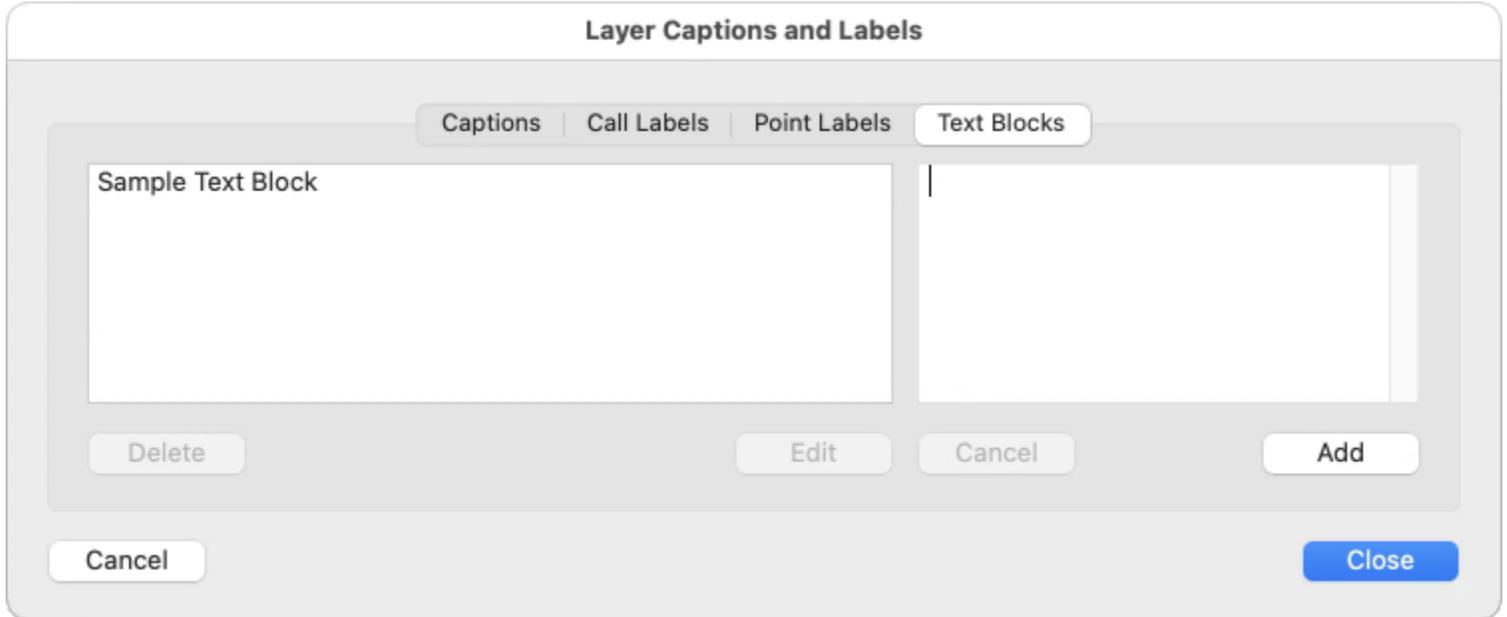
Options:

Create Labels From Calls: This menu option will create a label from the call. The call label can be formatted in one of several ways.

Create Labels From Call Lengths: This menu option will create a label from the call's length.

Clear All Labels: This menu option will clear all of the call labels.

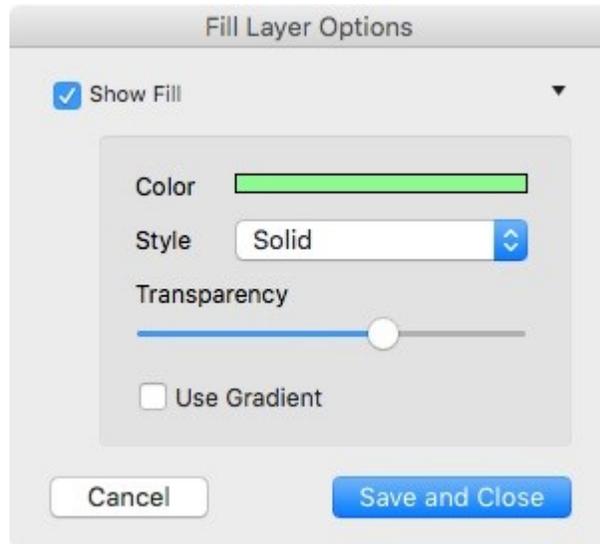
Text Blocks



Layer text blocks will size and move with the layer. Unlike floating text blocks that are unaffected by the drawing's scale setting.

Fill Color

Pressing this button will bring up the Fill Layer Form.



When Show Fill is checked, the plot area will be filled with the selected color.

To select a different color, click on the color rectangle. A color selection window will appear. Choose the desired color.

To change the fill pattern, choose a new pattern from the fill pattern popup menu.

The transparency of each layer's fill can be set using the Fill Transparency slider.

Checking the Use Gradient checkbox will cause the layer to be filled with a slight gradient instead a plain, solid color.

End Points

Pressing this button will bring up the following form:

The screenshot shows the 'End Point Options' dialog box. It has a title bar 'End Point Options' and two tabs: 'Textual' (selected) and 'Graphical'. The dialog contains several options:

- Show Point Number
- Show X,Y as Feet ▼
0 ▼ Dec. Points
- Show Lat/Long ▼
 as DMS
on 1 Line ▼
- Show Point Angles ▼
on 1 Line ▼
- Show Last End Point ▼

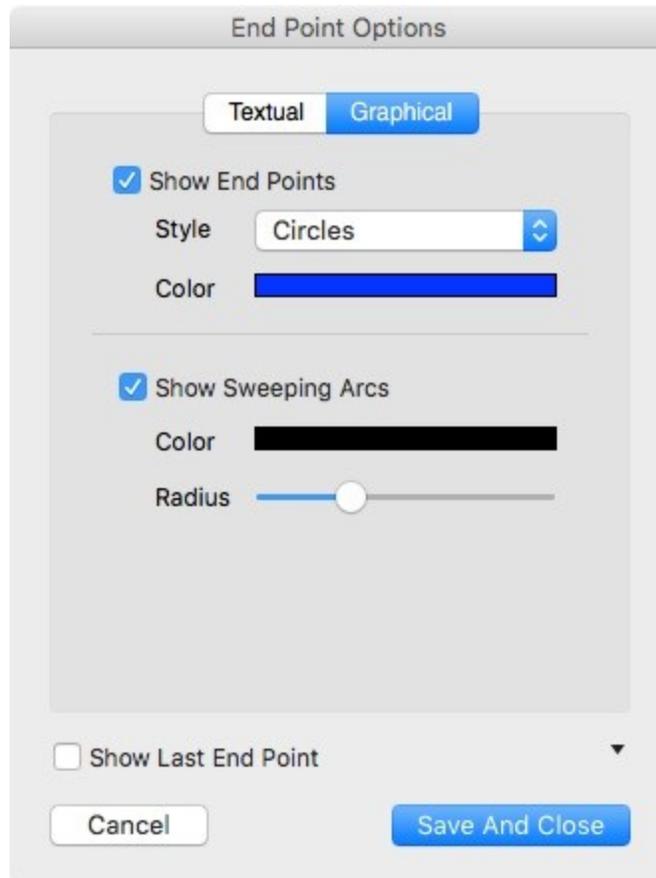
At the bottom, there are two buttons: 'Cancel' and 'Save And Close'.

Checking Show Point Number will draw the point number next to each end point.

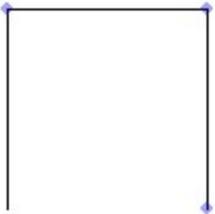
Checking Show X,Y will show the X,Y coordinates next to each end point. You can choose to show the X,Y coordinates in any of the supported units.

Checking Show Lat/Long will show the Lat/Long coordinates next to each end point. Checking as DMS will show the Lat/Long coordinates as Degrees/Minutes/Seconds instead of in decimal. The line popup menu allows you to choose if the lat/long values are on the same line or separate lines. You can create new X,Y Points that contain the Lat/Long values by choosing an option from the ▼ popup menu arrow.

Checking Show Point Angles will show the interior and exterior angles of the end points. The line popup menu allows you to choose if the angles are on the same line or separate lines or to show internal angles only. You can create new X,Y Points that contain the angle values by choosing an option from the ▼ popup menu arrow.



Checking Show End Points will highlight the end points of each line on the layer.



Select the endpoint style from the style popup menu. The options are filled circles, hollow circles or plus signs.

Click the color bar to change the color of this layer's end points.

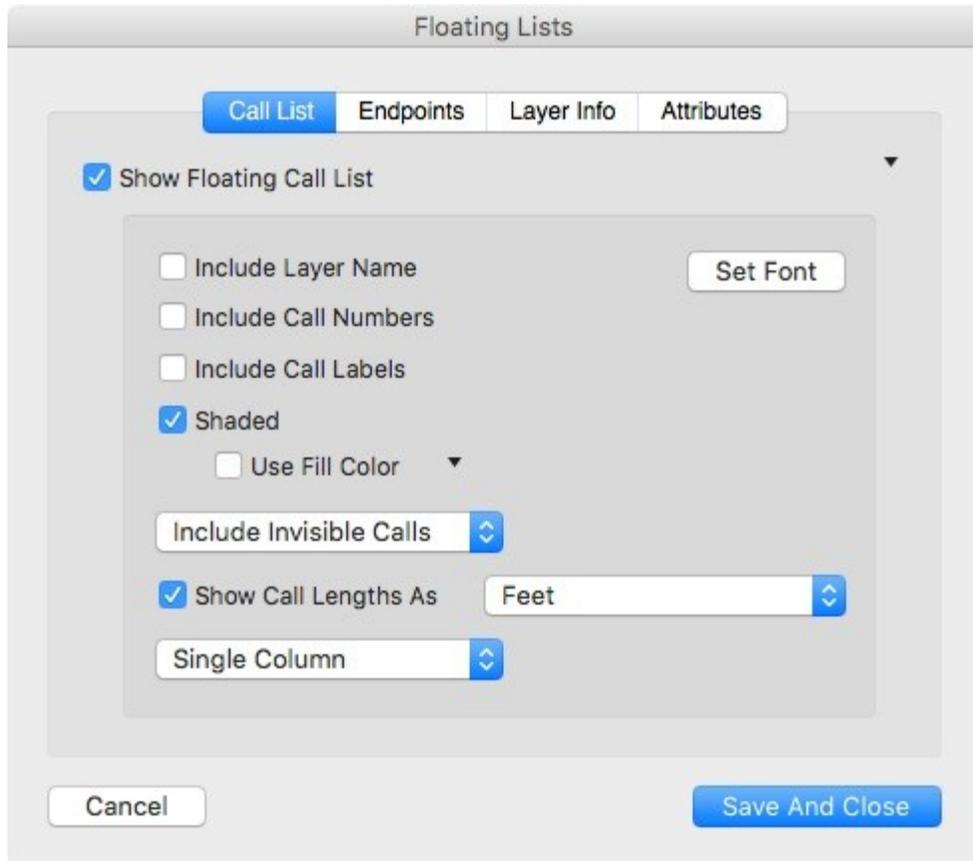
Checking the Show Sweeping Arcs checkbox will cause sweeping arcs to be drawn at each corner. The size and color of the arcs can be adjusted using the color and radius settings.

Checking the Show Last End Point checkbox will cause the last end point to draw its information as well. This option is helpful for drawing endpoints when a plot closes and when it doesn't.

Floating Lists

Pressing this button will bring up the Floating Lists form.

Call List:



The image shows a software dialog box titled "Floating Lists". It has four tabs: "Call List" (selected), "Endpoints", "Layer Info", and "Attributes". The "Call List" tab is active and contains the following options:

- Show Floating Call List
- Include Layer Name
- Include Call Numbers
- Include Call Labels
- Shaded
 - Use Fill Color
- Include Invisible Calls (dropdown menu)
- Show Call Lengths As: Feet (dropdown menu)
- Single Column (dropdown menu)

At the bottom of the dialog, there are two buttons: "Cancel" and "Save And Close". A "Set Font" button is also present next to the "Include Layer Name" checkbox.

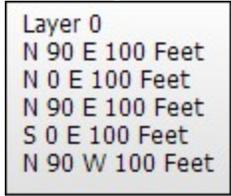
Checking the Show Floating Call List option will draw a call list on the drawing. You can move the call list by clicking on it and dragging it to a new location. You can also make this call list's layer the current layer by right-clicking on it and choosing Make Current Layer from the popup menu. The popup menu will also allow you to hide the call list.

Checking the Include Layer Name checkbox will include the layer's name at the top of the call list.

Checking the Include Call Numbers will include the call number of each call.

Checking the Include Call Labels will include the call labels in the call list.

Checking the Shaded checkbox will cause the call list to be drawn shaded instead of with a plain black box.



Layer 0
N 90 E 100 Feet
N 0 E 100 Feet
N 90 E 100 Feet
S 0 E 100 Feet
N 90 W 100 Feet

Checking the Use Fill Color checkbox will cause the call lists shading to be drawn in the same color as the layer's fill color. You can turn on layer's fill option by clicking on the ▼popup menu arrow.

You can control how invisible calls are displayed in the call list by choosing one of the options from the Invisible Calls popup menu.

Show Call Lengths As allows you to choose the unit of measurement used when showing the calls.

Floating Call Lists can also be set to be Single Column or Double Column.

Show Call Lengths As allows you to choose the unit of measurement used when showing the calls.

Endpoint List:

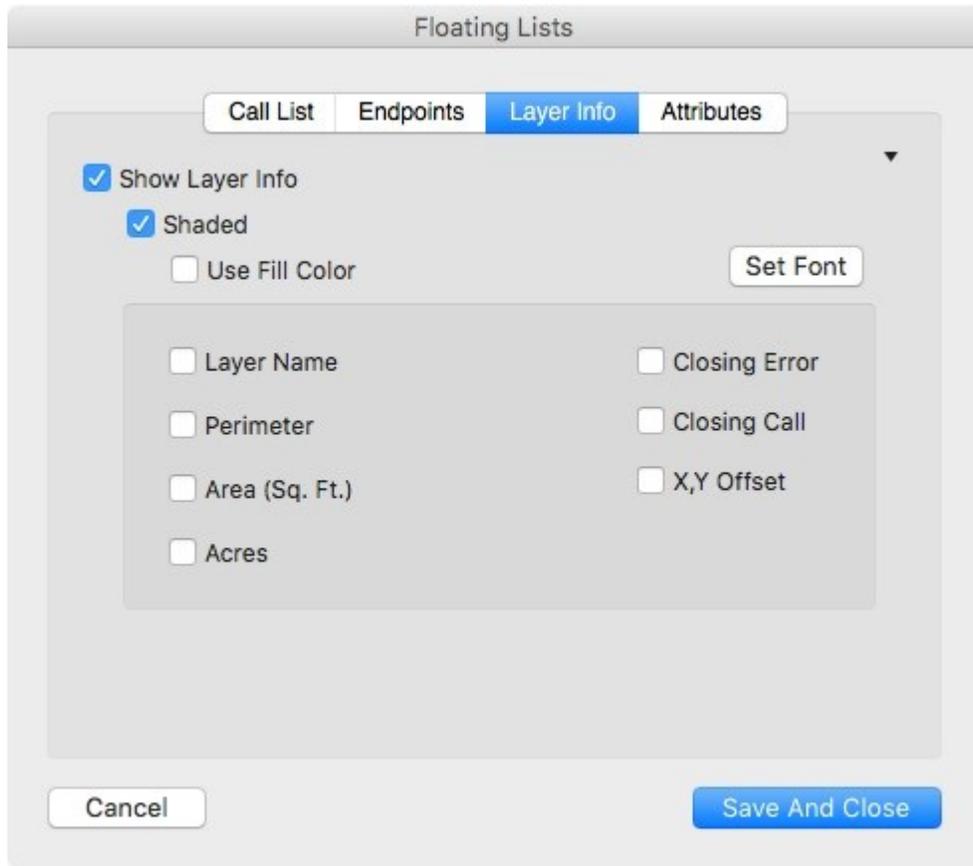
The image shows a software dialog box titled "Floating Lists" with a blue header bar. It contains four tabs: "Call List", "Endpoints", "Layer Info", and "Attributes". The "Endpoints" tab is selected. Inside the dialog, there are several options:

- Show Endpoint List
- Use Fill Color
- Layer Name
- X, Y 0 ▾ Dec. Points
- Lat / Long DMS ▾
- Angles
- Call

At the bottom of the dialog, there are two buttons: "Cancel" on the left and "Save And Close" on the right.

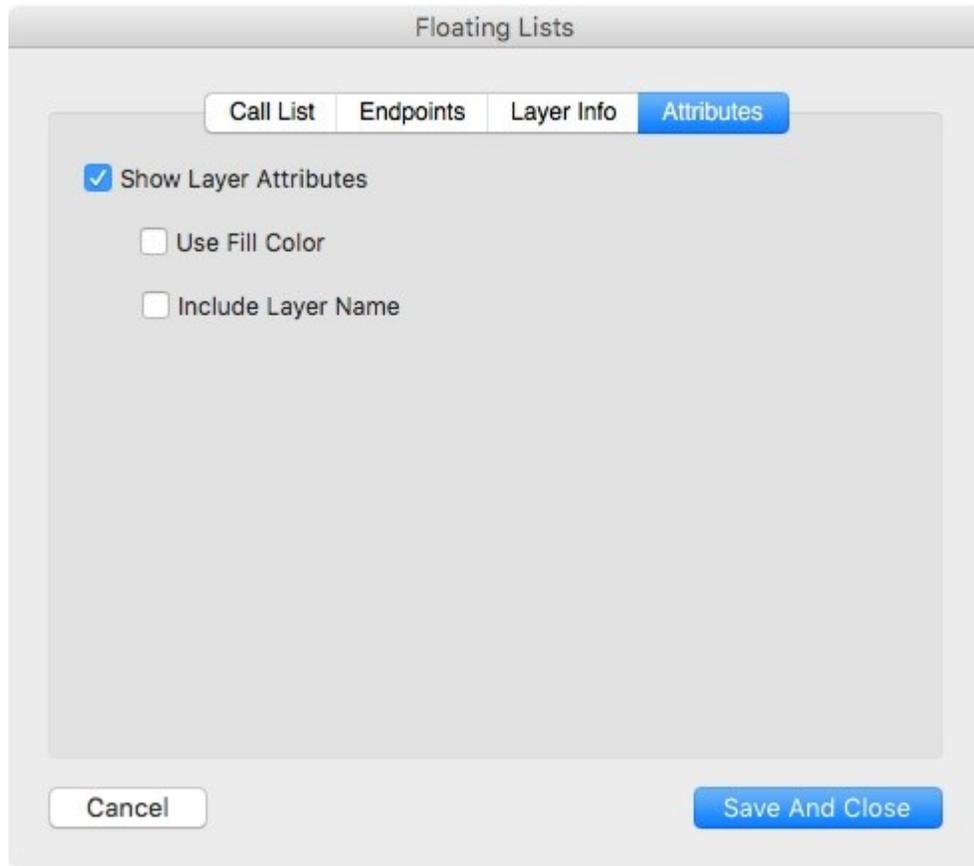
Checking the Show Endpoint List box will draw a list of endpoints on the drawing. This list can include the layer's name as well as each endpoint's x,y, Lat/Long, angles and calls. Lat/Long can be displayed as either DMS or decimals.

Layer Information:



Checking the Show Layer Information checkbox will draw a floating list that contains the information that is also checked.

Layer Attributes:



Checking the Show Layer Attributes checkbox will draw a floating list that contains the layer's attributes.

Waypoints

Pressing this button will bring up a popup menu with the choice of entering Lat/Long based waypoints or X,Y based waypoints.

Lat/ Long Waypoints

Choosing the Lat/Long popup menu will bring up the Waypoints and Tracks form. This form can be used to enter miscellaneous points and lines using latitude and longitude settings.

Waypoints and Tracks

Waypoints Tracks

Visible

Icon	Latitude	Longitude	Description	...	Rad.
	46	-85	POB	<input type="checkbox"/>	0
	46.0002742778	-85	1	<input type="checkbox"/>	0
	46.0002742778	-84.9996051667	2	<input type="checkbox"/>	0
	46.	-84.9996051667	3	<input type="checkbox"/>	0
	46	-85	4	<input type="checkbox"/>	0

Lat: Long:

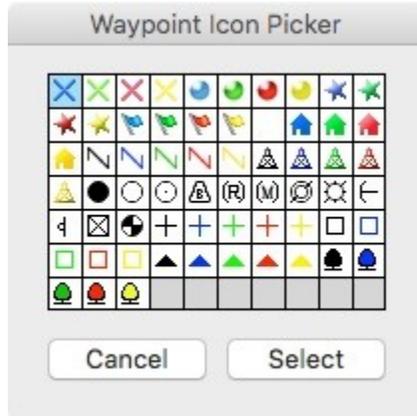
Description:

Display as DMS

Enter the latitude and longitude coordinates into the appropriate fields. You can change the icon used by clicking on the icon and choosing a new icon from the icon picker form. You can enter an optional description as well (label placeholders are also supported). Press the Add button to add this point to the list. To edit a point, click on the appropriate cell and change the data accordingly. To delete a point, select it from the list and then press the Delete button. Checking the Display as DMS box will cause the coordinates to be displayed in Degree/Minute/Second form instead of decimal form. Latitude and Longitude values can be entered as either decimal or DMS values.

Right-Clicking on a line will present you with a menu for copying a point to either Point 1 or Point 2 of the line tab. You can also delete the point by selecting Delete Point from the menu.

Clicking on the icon column will bring up a form allowing you to change the icon used to mark the lat/long waypoint.



Checking the checkbox for a waypoint will show that waypoint's description on the drawing.

Use the Visible checkbox to turn on/off the visibility of all of the waypoints.

Click on the Font icon to change the font used for a particular waypoint description.

Entering a Radius value will draw a circle around the waypoint with the given radius.

Importing Waypoints

Waypoints can be imported from a GPX, KML or CSV files by choosing Import from the File menu.

Exporting Waypoints

Waypoints can be exported to a GPX file by choosing the Export Waypoints as GPX menu from the File menu.

Create Points From Endpoints

This will create lat/long waypoints for each endpoint of the current layer.

Project Waypoint

You can choose this option from the Options menu. This will take the current value in the Lat/Long fields and prompt you for an angle and a distance (in feet). It will then create a new waypoint at that location.

Create Layer From Waypoints

This feature is found under the Options menu. Choosing this will send all of the waypoints to the Lat/Long to Layer converter.

Tracks

The screenshot shows a dialog box titled "Waypoints and Tracks" with two tabs: "Waypoints" and "Tracks". The "Tracks" tab is selected. At the top left, there is a checked checkbox labeled "Visible". Below this is a table with five columns: "Lat 1", "Long 1", "Lat 2", "Long 3", and "Description". The table is currently empty. Below the table are two sections for entering coordinates: "Point 1" and "Point 2". Each section has "Lat:" and "Long:" labels followed by text input fields. The "Lat:" field for Point 1 is currently selected. Below these sections is a "Description:" label followed by a text input field. To the right of the description field are two buttons: "Add" (blue) and "Delete" (white). Below the description field is a checkbox labeled "Move Point 2 to Point 1 after Add". At the bottom of the dialog are three buttons: "Cancel", "Save and Close", and "Display as DMS" (checkbox).

Enter the two sets of latitude and longitude coordinates. You can enter an option description as well. Press the Add button to add the line. A black line will be drawn between the two points on the drawing after pressing the Save and Close button. Checking the "Move Point 2 to Point 1 after Add" checkbox will move the latitude and longitude values from the Point 2 fields into the Point 1 fields and then set the focus to the Point 2 fields. This is useful when entering data that produces a continuous line made up of multiple segments.

Pressing the Cancel button will close the form without saving any of the point or line changes.

You can delete all of the waypoints or tracks by choosing the appropriate menu from the File menu.

Use the Visible checkbox to turn on/off the visibility of all of the tracks.

X,Y Waypoints

Choosing the X,Y popup menu will bring up the X,Y Points form. This form can be used to enter miscellaneous points using x,y settings. These points can be used similar to lat/long waypoints or they can be used as a labeling system for a given layer.

Icon	X	Y	Description	dx	dy	...	Font	Rot.	Rad.
	0	100	Endpoint 1	0	0	<input checked="" type="checkbox"/>			
	100	100	Endpoint 2	0	0	<input checked="" type="checkbox"/>			
	100	0	Endpoint 3	0	0	<input checked="" type="checkbox"/>			
	0	0	Endpoint 4	0	0	<input checked="" type="checkbox"/>			

If you know the specific x,y coordinates that you want to use for the waypoint:

- Choose Custom X,Y from the Placement popup menu.
- Enter in the x and y values.
- Choose the desired Icon.
- Make sure that the Show Description box is not checked.
- Press the Add button.

If you want to use the x,y waypoints as a layer labeling system:

- Description - Enter your label caption here. Label Placeholders are also supported.
- X,Y and Placement
 - You can enter in custom x,y values. You can later use the mouse to move the label.
 - If you choose one of the endpoints from the Placement popup, you can then choose an option from the popup menu widget at the end of the description text field. Choosing an option from this menu will fill in the description field with the appropriate values.
- Icon - Picker the desired icon.
- Show Description - If this is meant to be a label, make sure that this box is checked.
- Press the Add button.

You can change any value by selecting it in the list and making the appropriate changes. The dx,dy fields are used to offset the description when it is displayed on the drawing. Alternately, you can use the mouse to move the icons and descriptions/labels on the drawing.

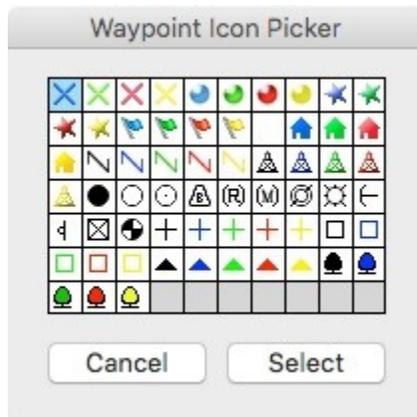
To delete a X,Y Waypoint, select it from the list and press the Delete button.

Click on the Font icon to change the font used for a particular waypoint description.

Changing the Rotation value will cause the text to be drawn at that degree of angle.

Entering a Radius value will draw a circle around the waypoint with the given radius.

Clicking on the icon column will produce the icon picker form, allowing you to change the icon used to mark the waypoint.



Checking the checkbox for a waypoint will show that waypoint's description on the drawing. Use the Visible checkbox to turn on/off the visibility of all of the waypoints.

Options

- **Delete All Point**
Choosing this option will delete all x,y points.
- **Show All Descriptions**
Choosing this option will check the Show Description checkbox for each point.
- **Hide All Descriptions**
Choosing this option will uncheck the Show Description checkbox for each point.
- **Set All Icons to Currently Selected Icon**
Choosing this option will set the icon for each x,y point to the currently selected icon.
- **Create Points From Endpoints**
Choosing this menu option will create an x,y point based on the x,y of each end point on the current layer.
- **Create Points From Endpoints with Lat/Long**
 - **Decimal on 1 Line**
Creates a point with the Lat/Long in decimal as the description.
 - **Decimal on 2 Lines**
Creates two points for each endpoint. The Lat value in decimal for the 1st description and the Long value in decimal for the 2nd description.
 - **DMS on 1 Line**
Creates a point with the Lat/Long in DMS as the description.
 - **DMS on 2 Lines**
Creates two points for each endpoint. The Lat value in DMS for the 1st description and the Long value in DMS for the 2nd description.
- **Create Points From Endpoints with Angles**
 - **On 1 Line**
Creates a point with the endpoint's angles as the description.
 - **On 2 Lines**
Creates two points for each endpoint. One point contains the interior angle and the other point contains the exterior angle.
- **Create Points From Line Midpoints**
Choosing this menu option will create an x,y point based on the x,y of the midpoint of each line in the current layer.

- **Create Points From Line Midpoints with Calls**

Choosing this menu option will create an x,y point based on the x,y of the midpoint of each line in the current layer and pre-populate the description field with the line's call. It will also check the show description checkbox. If the layer's Show Calls In-line checkbox is checked, this option will set the waypoints rotation to match.

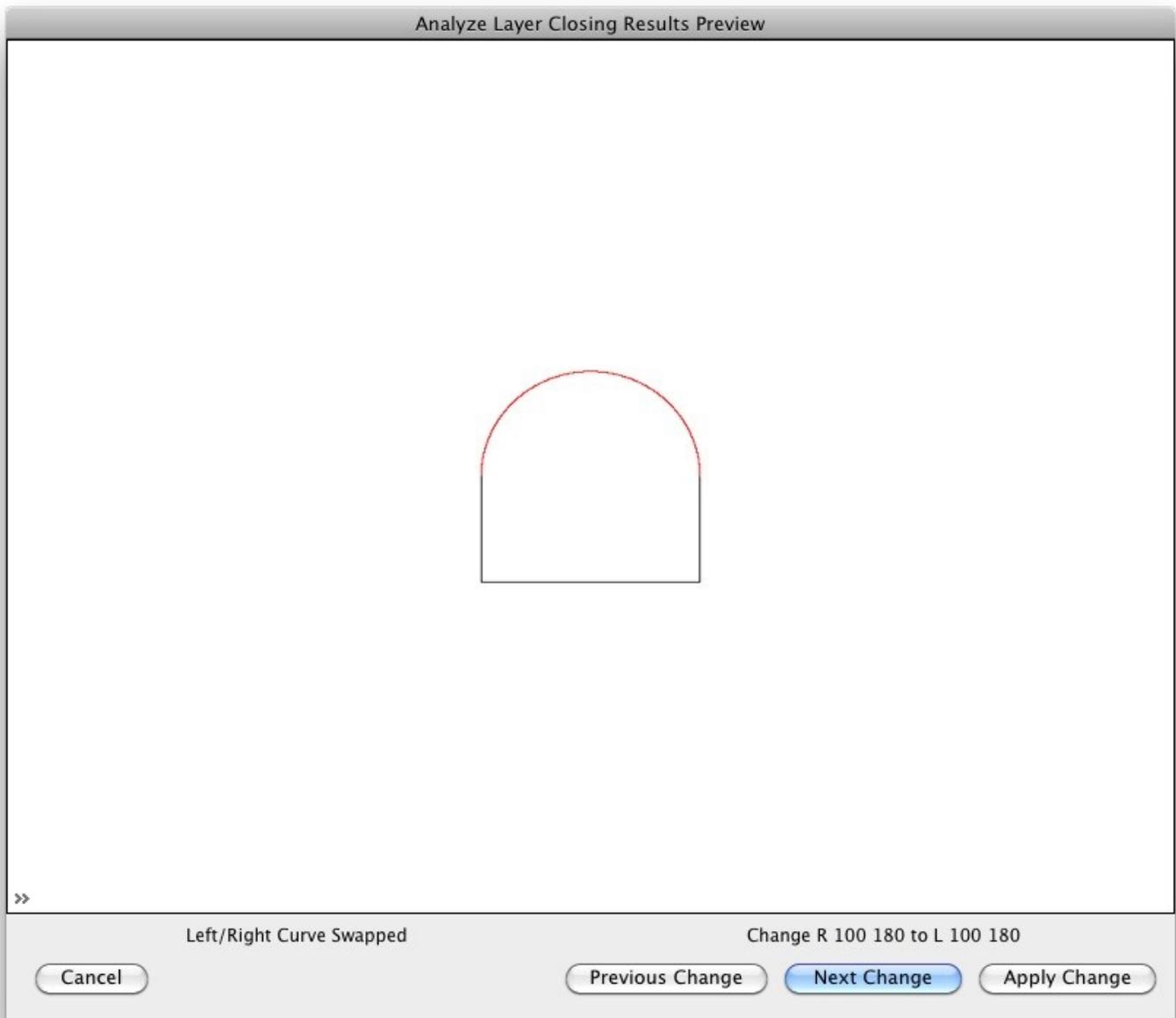
- **Create Points From Layer Name and Area Settings**

Choosing this menu option will create an x,y point for the layer name and layer area at the center of the layer.

- **Create Layer From Points**

Choosing this menu will take you to the X,Y to Layer form and pre-populate the form with the x,y waypoints.

Analyze Layer Closing Error

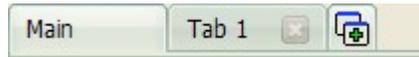


This utility will examine a layer that doesn't close completely for common errors that may have caused the closing error. An example of this would be a curve that should have gone to the left but was entered in as a curve to the right. The utility will present you with a list of possible errors along with a potential solution for the error.

You can press Previous Change or Next Change to look at the different potential solutions the utility found. Press the Apply Change button to apply the selected change to the call.

Press the slider arrows to see the original layer side by side with the suggested layer change.

Tabs



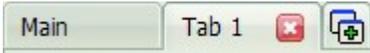
Tabs can be used to create additional views from the same layer and call data. Each tab is based on the same layer calls, but can have its own scale, background picture, fill options, etc. This allows for multiple views of the same data to be saved within a single file.



Every drawing has a main tab. The main tab cannot be deleted.



To create a new tab, press the New Tab button. The new tab will be a copy of the tab that was selected when the new tab button was pressed.



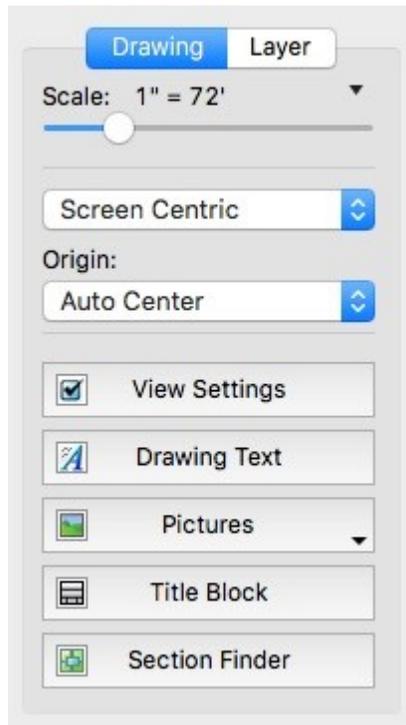
To switch between tabs, click on the desired tab in the tab bar.



To delete a tab press the red X button on the tab that you wish to delete. Deleting a tab deletes all of the view configurations associated with that tab. Deleting a tab cannot be undone. Deleting a tab will not remove any of the layers or call data, even if the calls or layers were added while viewing the deleted tab.

The tab bar can be hidden by un-checking the Show Tabs menu found under the Windows menu. The default for showing tabs can be set in the preferences.

Drawing Options



Scale

The scale can be adjusted by moving the slider control.

Clicking on the scale indicator will toggle it between 1"=X' and 1:X formats.

Clicking on the ▼popup menu arrow will present you with a popup menu of some common scale settings. You can also choose Custom from the popup menu to enter your own ratios. Choosing Scale Current Layer to Window will set the scale so that the current layer will fill the screen.

1" = 5280'
1" = 3000'
1" = 2000'
1" = 1320'
1" = 1000'
1" = 660'
1" = 330'
8" = 660'
Default
Scale Current Layer to Window
Custom

Screen Centric vs. Printer Centric

The drawing can be set to either Screen Centric or to Printer Centric. Screen Centric lets you use your entire screen for the drawing area. This gives you a larger drawing area, but makes printing to a single sheet of paper more difficult. Printer Centric limits your drawing area to the size of your printer's page setup, but printing to a single sheet of paper is easy. Printer Centric defaults to a 8"x10.5" paper size, but can be changed using the [Page Setup](#) menu option.

Origin

The starting point for the drawing can also be set.

- **Auto Center** - Causes the plot to remain centered in the drawing unless you manually move it.
- **Top Left** - Causes the starting point of the first call to be drawn in the upper, left hand corner of the drawing.
- **Top Right** - Causes the starting point of the first call to be drawn in the upper, right hand corner of the drawing.
- **Bottom Left** - Causes the starting point of the first call to be drawn in the lower, left hand corner of the drawing.
- **Bottom Right** - Causes the starting point of the first call to be drawn in the lower, right hand corner of the drawing.
- **Center of Drawing** - Causes the starting point of the first call to be drawn in the center of the drawing. Unlike the Auto-Center option, this only keeps the starting point centered in the drawing and does not keep the entire plot centered in the drawing.

The Auto Center option is useful for single layer drawings. The other five options are useful when multiple layers share the same starting point.

View Settings

The screenshot shows a 'View Settings' dialog box with the following configuration:

- Show Area: Area (ft) - Current Layer, 2 Dec. Points
- Show Scale: Bottom Right, Feet
- Show North Arrow: Bottom Right, Style 1
- Show Border
- Show Watermark: [Empty text field]

Buttons: Cancel, Save and Close

Show Area

Choosing this option will draw the selected area measurement in the upper left hand corner of the drawing. You can choose to show the area with 0 to 5 decimal places. The number of decimal points chosen here will also be used for other area displays such as label placeholders and layer area captions.

Show Scale

This option toggles the visibility of the scale tape. If the scale is visible, you can also select which corner of the drawing that you want it to be drawn in. The scale defaults to feet, but the unit of measurement can be changed to any of the supported units of measurement using the unit's popup menu.

Show North Arrow

This option toggles the visibility of the north arrow. If the arrow is visible, you can also select which corner of the drawing that you want it to be drawn in. There are also several different styles of arrow that can be chosen from the Style popup menu.

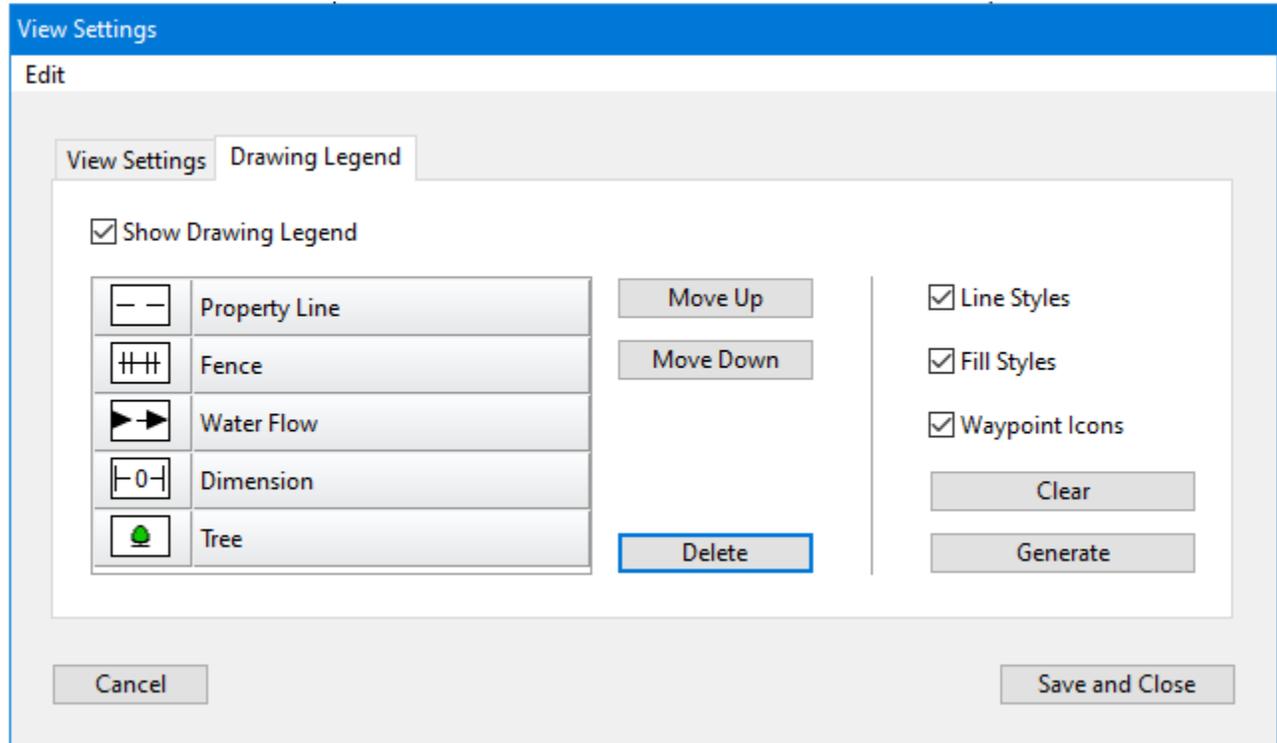
Show Border

This option draws a thick border around the entire drawing. This can be useful for print outs.

Show Watermark

This option will draw a watermark in the center of the drawing. The watermark will be the text entered in the watermark text field.

Drawing Legend



The drawing legend allows you to create a floating legend box. This legend box can be automatically generated from the drawing's line style, fill styles and X,Y Waypoint Icons. After the legend is generated, you can click on the legend text to change it.

Labels

The labels button will bring on the Label Manager form.

Pictures

Clicking this button will bring up a popup menu. Choosing Background Picture from the popup menu will bring up the Background Picture form. Choosing Snapshots will bring up the Snapshots form.

Title Block

This button will bring up the Title Block form. To make the title block visible, check the Show Title Block checkbox. Depending on the selected style, you can choose to anchor the title block in any of the drawing's four corners. The title block fields can also use the % placeholders.

Style 1:

The screenshot shows a dialog box titled "Title Block". It contains a checked checkbox "Show Title Block" and a descriptive text: "A small, six field title block that can be located in the bottom right or bottom left hand corner of the drawing. Each field is user definable." Below this are two dropdown menus: "Style" set to "Style 1" and "Location" set to "Bottom Right". A preview area shows a sample title block with six fields: "Sample Plot", "by Sandy Knoll Software, LLC", "Entered by John Doe", "1"=300'", an empty field, and "2/11/2018". A "Save and Close" button is at the bottom.

Sample Plot		
by Sandy Knoll Software, LLC		
Entered by John Doe		
1"=300'		2/11/2018

Save and Close

There are 6 fields that you can enter data into. Directly beneath the data fields is a preview of what the title block will look like.

Style 2:

Title Block

Show Title Block

Style

Location

A large, five field title block that can be located in the bottom right or bottom left hand corner of the drawing. Only the first field is user definable. The fifth field will display the call list, and other information, for the currently selected layer.

Hide File Name

Area as Meters

Created by Sandy Knoll Software, LLC	1/4/2018
Scale: 1" = 72'	
Layer 0: 0.2296 Acres (10,000Sq. Ft.), Closure: S 0 E 0.0 (-/-), Perimeter: 400 ft.	
N 0 E 100 Feet	N 90 W 100 Feet
N 90 E 100 Feet	
S 0 E 100 Feet	

Style 2 of the Title Block will show a custom label, the set date, the drawing's scale, the file path, and information about the drawing such as the current layers area and call list.

Style 3:

Title Block

Show Title Block

Style:

Location:

A five field title block that fills the entire width of the drawing. This title block will resize itself, up to half of the drawing height, in order to show the calls of all of the selected layers. Additional information is also included for each layer.

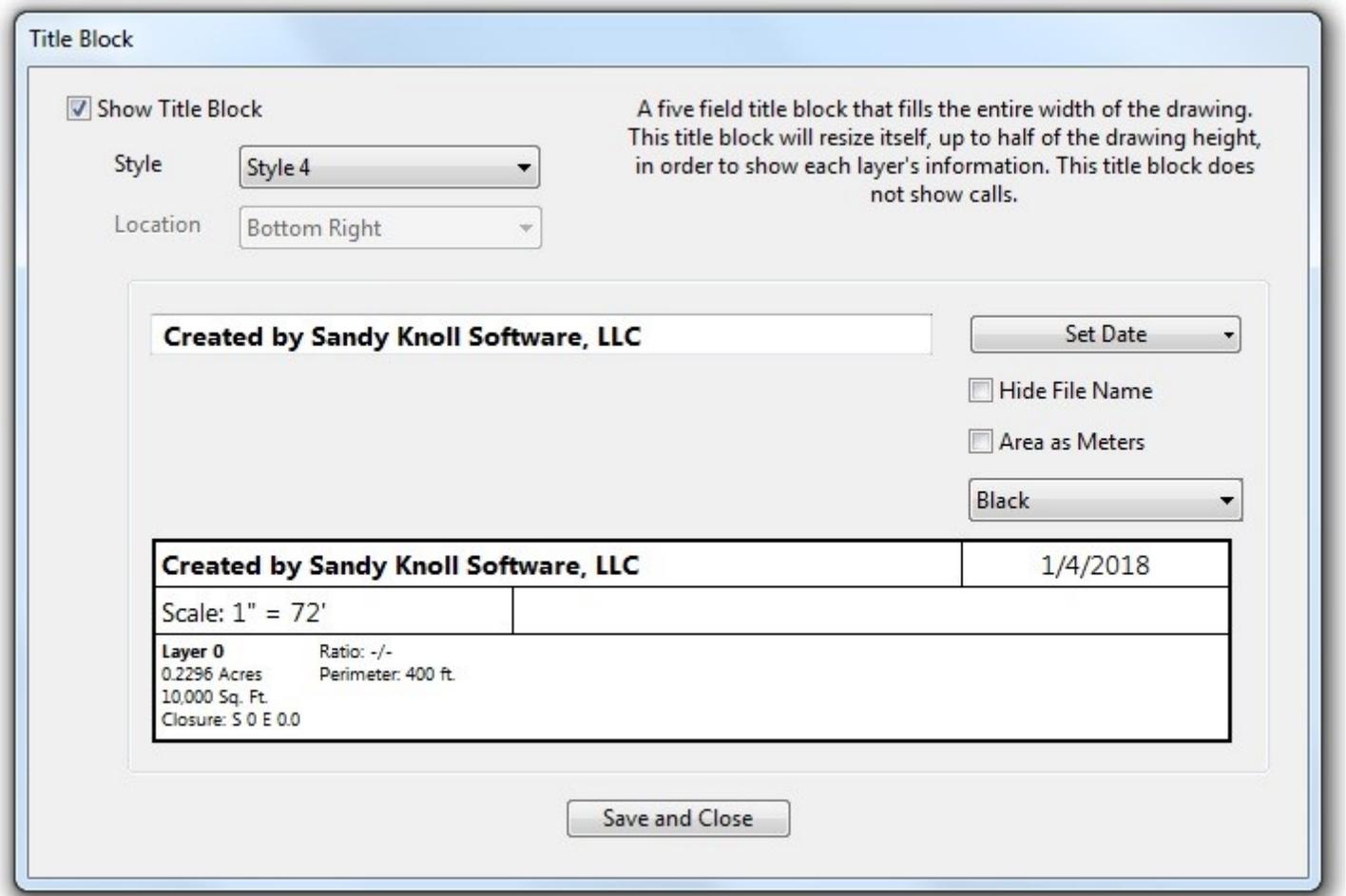
Hide File Name
 Area as Meters
 Include Call Numbers

Hide Units

				Date
Scale: 1" = 72'				
Layer 0	Ratio: -/-	S 0 E 100 Feet	1 Sq. Ft.	N 0 E 100 Feet
0 Acres	Perimeter: 400 ft.	N 90 W 100 Feet	Closure: S 0 E 0.0	N 90 E 100 Feet
1 Sq. Ft.	N 0 E 100 Feet	Layer 0 copy	Ratio: -/-	S 0 E 100 Feet
Closure: S 0 E 0.0	N 90 E 100 Feet	0 Acres	Perimeter: 400 ft.	N 90 W 100 Feet

Style 3 of the Title Block will show a custom label, the set date, the drawing's scale, the file path, and information and call lists for the selected layers. The title block will fill the entire bottom of the page and will resize itself up to half of the drawing's height in order to show all of the selected layer's calls. Each layer's text can have the same look, or you can choose to have each layer's calls have a different appearance.

Style 4:



Style 4 of the Title Block will show a custom label, the set date, the drawing's scale, the file path and layer information. The title block will fill the entire bottom of the page and will resize itself up to half of the drawing's height in order to show all of the visible layer's information. Each layer's text can have the same look, or you can choose to have each layer's calls have a different appearance.

Style 5:

Title Block

Show Title Block

Style

Location

A five field title block that fills the entire width of the drawing. The middle field will resize to fit the entered text. The bottom field will display information about the currently selected layer. Layer calls are optional.

Hide Layer Calls

Area as Meters

Include Call Numbers

Hide Units

		Date
Scale: 1" = 72' Layer 6: 0.23 Acres (10,000Sq. Ft.), Closure: S 0 E 0.0 (-/-), Perimeter: 400. ft.		
N 0 E 100 Feet	N 90 W 100 Feet	
N 90 E 100 Feet		
S 0 E 100 Feet		

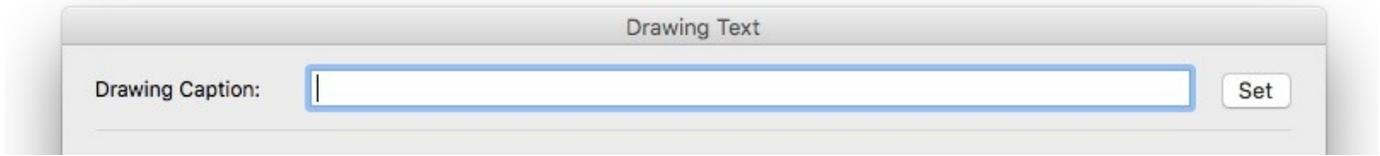
Style 5 of the Title Block will show three custom labels, the set date, the current layer's information and the option to show the current layer's calls. The title block will fill the entire bottom of the page and the middle field will resize to show all of the entered data.

Section Finder

See Section Finder.

Labels and Captioning

Captioning



You can enter a single caption for the drawing by entering the caption in the Drawing Caption field and pressing the Set button.

This caption will appear in the lower left hand corner of the drawing.

Labels (Legacy)

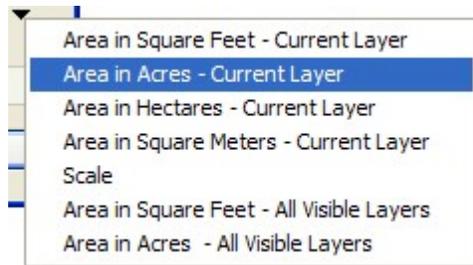
You can add labels to the drawing by pressing the Labels button. This will bring up the labels manager form. Existing labels can be edited by right clicking on the label in the main drawing window.



The Labels Visible checkbox can be used to toggle the visibility of the layers.

To create a new label, enter the label's text in the caption field and press the Add button.

A label's caption can also automatically be filled with information about the plot. Click on the ▼ popup menu arrow to get a menu of choices.



Each label can be rotated in 90-degree increments. Pick the label's angle by choosing the angle from the menu.

To edit a label, click on the label in the list. The caption and angle fields will populate with that label's information. Press the Edit button to save your changes to the label.

To remove a label, click on the label in the list and then press the Remove button. To remove all labels at once, press the Remove All button.

Press the Font button to choose the font style used for the labels.

Legacy Labels can be converted to Floating Text Blocks under the Options menu.

Moving Labels (Legacy)

The labels can be positioned on the main drawing by clicking on them and dragging them to the desired location. The labels will attempt to keep their position relative to the scale, when the scale is changed. You can also reset them back to the center by selecting the label in the Label Manager and pressing the Reset Location button.

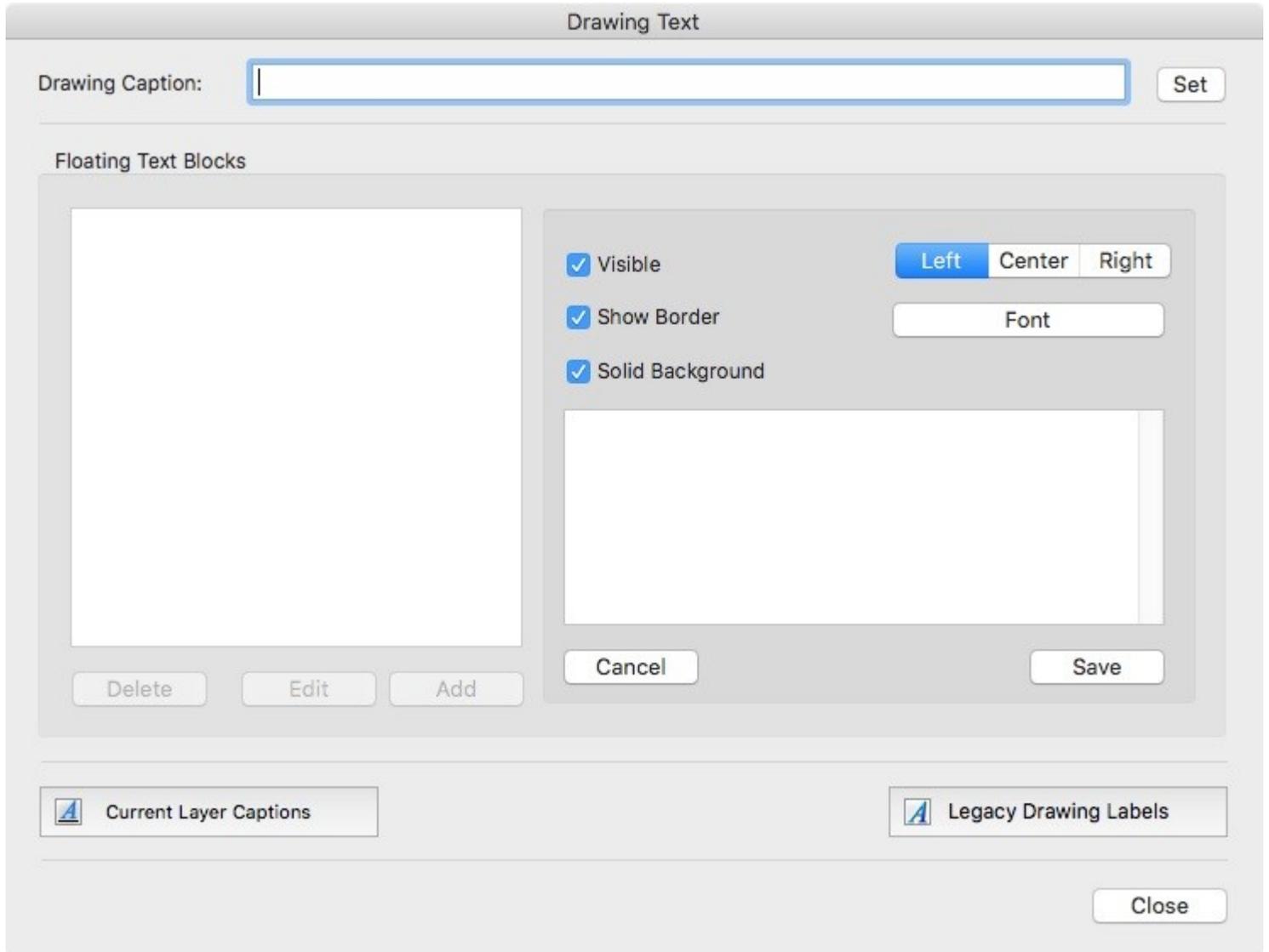
Label Placeholders

Labels can also contain placeholder. Placeholders are a symbol that the label will replace with a calculated. Placeholders started with the percent symbol (%).

%1 - Current Layer - Area in Sq. Feet	%2 - Current Layer - Area in Acres	%3 - Current Layer - Area in Hectares	%4 - Current Layer - Area in Sq. Meters
%5 - Scale	%6 - All Layers - Area in Sq. Feet	%7 - All Layers - Area in Acres	%8 - Current Layer - Perimeter in Feet
%9 - All Layers - Perimeter in Feet	%10 - Current Layer - Perimeter in Meters	%11 - All Layers - Perimeter in Meters	%12 - Layer Name (when in context)
%13 - Layer Setting - Area (when in context)	%D - Date	%L - Linefeed	

Floating Text Blocks

Pressing the Edit Floating Text Blocks button will bring up the Float Text editor.



Press the Add button to create a new floating text block. Enter your text into the text entry field. Press the Save button.

You can make the text block invisible by un-checking the Visible checkbox. The text block's black border can be toggled using the Show Border checkbox. The text block's background can be solid or transparent. The text block's text alignment can be set to Left, Center or Right.

Press the Font button to change the text block's font.

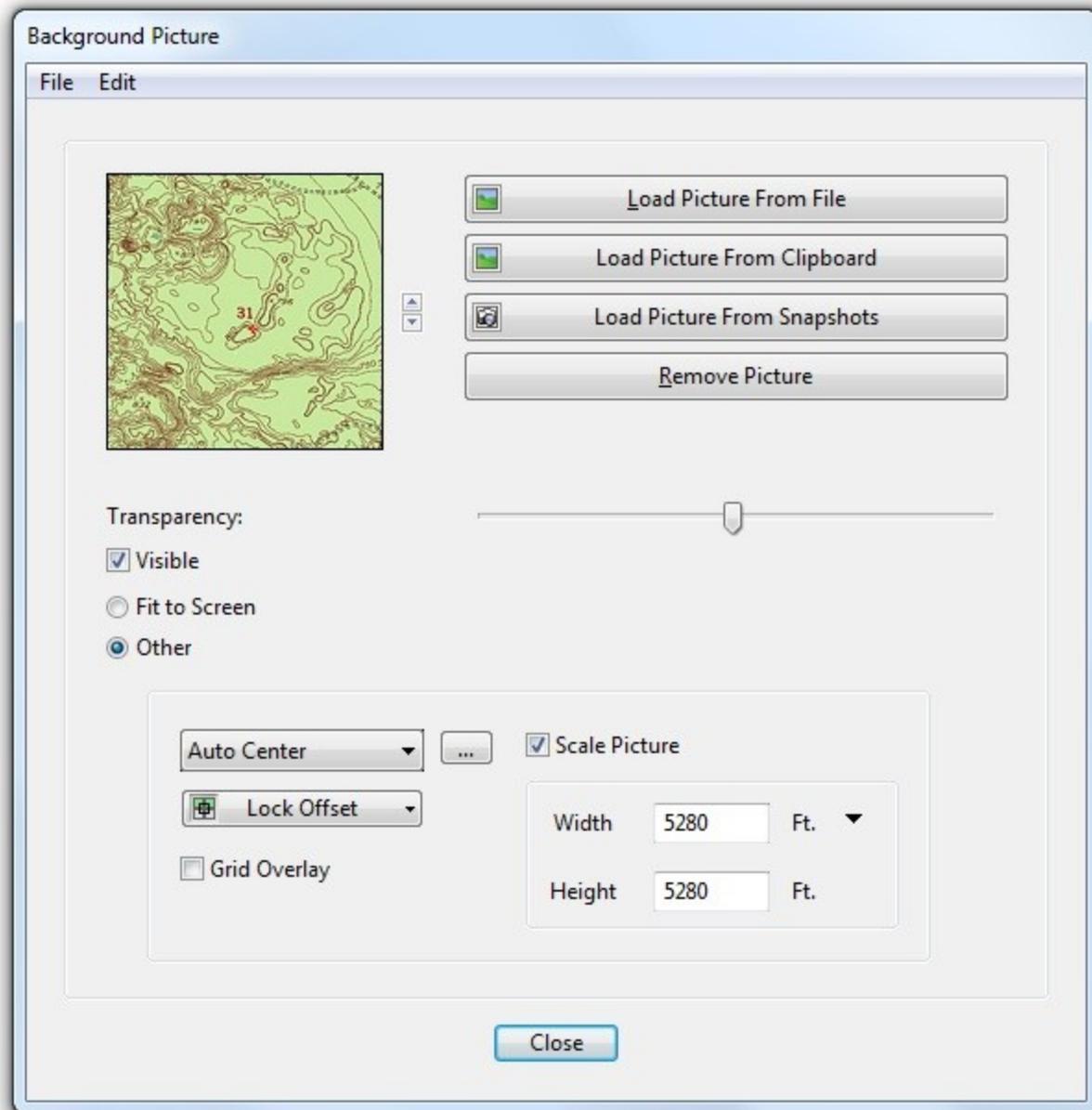
To edit a floating text block, select it from the list and press the Edit button. Make your changes and press the Save button.

To delete a floating text block, select it from the list and press the Delete button.

Moving Floating Text Blocks

Floating text blocks will start out at the top, left corner of the drawing. You can move them by clicking on them and dragging them. You can resize them by clicking on the resizing block in the bottom, right hand corner of the floating text block.

Background Picture



You can add a background to the drawing by pressing the Pictures button and choosing Background Picture from the popup menu. This will bring up the Background Picture form. You can also bring up this form by right clicking in the main drawing window and choosing Change Background from the popup menu.

Click the Load Picture From File button to select a picture to use as the background.

Click the Load Picture From Clipboard to paste a picture from the clipboard for the background image.

Click the Load Picture from Snapshots button to bring up the Snapshots form.

The background picture can also be set from the Section Finder.

Click the Remove Picture button to remove the picture from the background.

You can use the Transparency slider to adjust the picture's level of transparency.

The visible checkbox can be used to make the background visible or invisible without having to load or remove the picture.

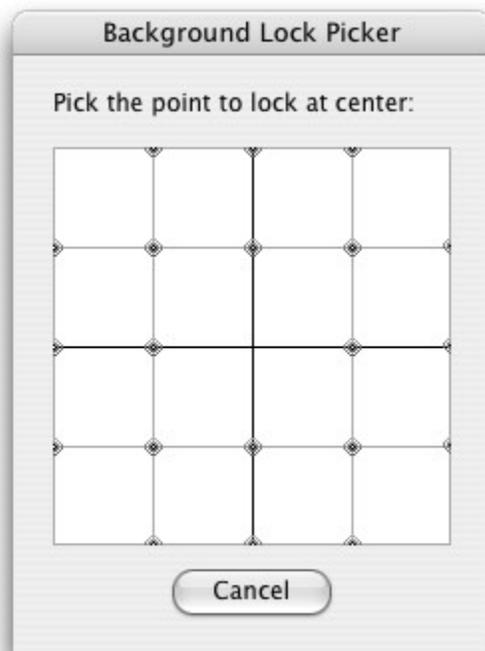
The up/down arrows can be used to rotated the background picture by $\pm .1$ degrees.

Fit to Screen

This option will cause the background picture to stretch to the size of the drawing.

Other

This option will allow you to choose where the background is drawn. You can either choose an option from the popup menu or press the  button to bring up a visual picker.



(Visual Picker)

- Section

- *Auto Center* - This will keep the background drawn in the center of the drawing.
- *Top Left* - This will keep the top left corner of the background picture pinned to the top left corner of the drawing.
- *Top Right* - This will keep the top right corner of the background picture pinned to the top right corner of the drawing.
- *Bottom Left* - This will keep the bottom left corner of the background picture pinned to the bottom left corner of the drawing.
- *Bottom Right* - This will keep the bottom right corner of the background picture pinned to the bottom right corner of the drawing.
- *Top Left at Center* - This will keep the top left corner of the background picture pinned to the center of the drawing.
- *Top Right at Center* - This will keep the top right corner of the background picture pinned to the center of the drawing.
- *Bottom Left at Center* - This will keep the bottom left corner of the background picture pinned to the center of the drawing.
- *Bottom Right at Center* - This will keep the bottom right corner of the background picture pinned to the center of the drawing.

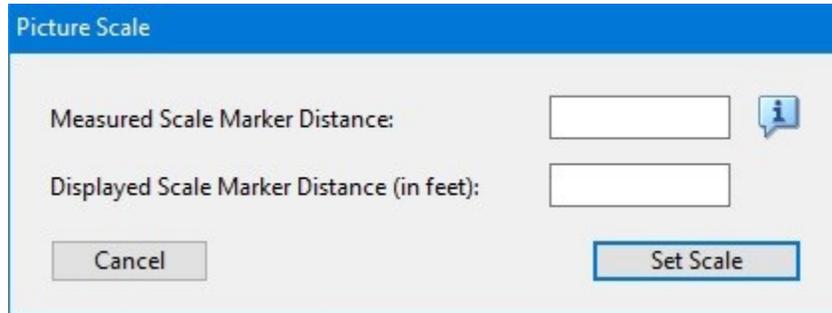
- Quarter Section

- *Left Middle at Center* - This will keep the middle of the left hand side of the background picture pinned to the center of the drawing.
- *Right Middle at Center* - This will keep the middle of the right hand side of the background picture pinned to the center of the drawing.
- *Top Middle at Center* - This will keep the middle of the top edge of the background picture pinned to the center of the drawing.
- *Bottom Middle at Center* - This will keep the middle of the bottom edge of the background picture pinned to the center of the drawing.

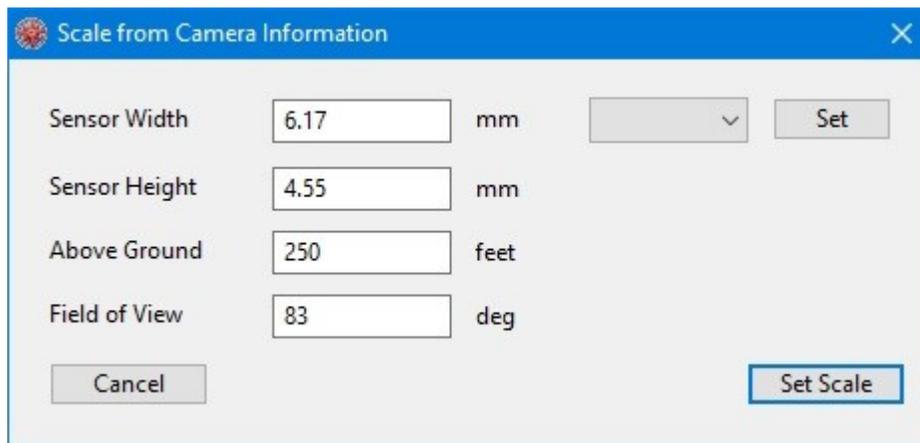
- Quarter of Quarter Section
 - *NW/4 Top Middle at Center* - This will keep the middle of the top edge of the northwest quarter of the background picture pinned to the center of the drawing.
 - *NW/4 Left Middle at Center* - This will keep the middle of the left hand side of the north west quarter of the background picture pinned to the center of the drawing.
 - *NW/4 Right Middle at Center* - This will keep the middle of the right hand side of the north west quarter of the background picture pinned to the center of the drawing.
 - *NW/4 Bottom Middle at Center* - This will keep the middle of the bottom edge of the northwest quarter of the background picture pinned to the center of the drawing.
 - *NE/4 Top Middle at Center* - This will keep the middle of the top edge of the northeast quarter of the background picture pinned to the center of the drawing.
 - *NE/4 Left Middle at Center* - Same as NW/4 Right Middle at Center.
 - *NE/4 Right Middle at Center* - This will keep the middle of the right side of the north east quarter of the background picture pinned to the center of the drawing.
 - *NE/4 Bottom Middle at Center* - This will keep the middle of the bottom edge of the northeast quarter of the background picture pinned to the center of the drawing.
 - *SW/4 Top Middle at Center* - Same as NW/4 Bottom Middle at Center
 - *SW/4 Left Middle at Center* - This will keep the middle of the left hand side of the south west quarter of the background picture pinned to the center of the drawing.
 - *SW/4 Right Middle at Center* - This will keep the middle of the right hand side of the south west quarter of the background picture pinned to the center of the drawing.
 - *SW/4 Bottom Middle at Center* - This will keep the middle of the bottom edge of the south west quarter of the background picture pinned to the center of the drawing.
 - *SE/4 Top Middle at Center* - Same as NE/4 Bottom Middle at Center
 - *SE/4 Left Middle at Center* - Same as SW/4 Right Middle at Center
 - *SE/4 Right Middle at Center* - This will keep the middle of the right hand side of the south east quarter of the background picture pinned to the center of the drawing.
 - *SE/4 Bottom Middle at Center* - This will keep the bottom edge of the south east quarter of the background picture pinned to the center of the drawing.
 - *NW/4 Center at Center* - This will keep the center of the north west quarter of the background picture pinned to the center of the drawing.
 - *NE/4 Center at Center* - This will keep the center of the north east quarter of the background picture pinned to the center of the drawing.
 - *SW/4 Center at Center* - This will keep the center of the south west quarter of the background picture pinned to the center of the drawing.
 - *SE/4 Center at Center* - This will keep the center of the south east quarter of the background picture pinned to the center of the drawing.

Scale Picture

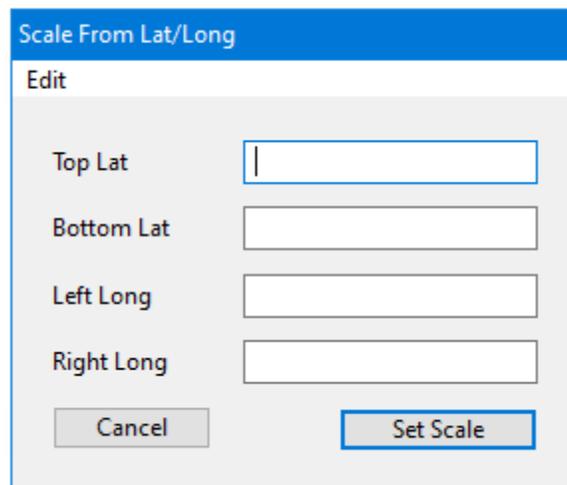
Check this box to have the background draw to scale. Enter the number of feet that the width of the background picture represents and the number of feet that the height of the background picture represents. Common scales, such as 1 square mile, are available from the popup menu widget. The popup menu widget also contains options for setting the scale via World File, Measured Scale Marker and Camera/Flight information or Lat/Long values.



(Measured Scale Marker)



(Scale from Camera/Flight Information)



(Scale from Lat/Long Values)

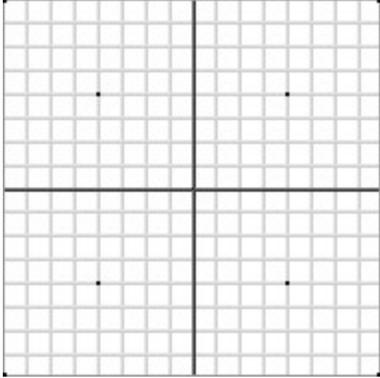
Lock Offset

This option allows you to keep the background's offset locked to its origin, or its offset can be locked to a layer's offset. If the background is locked to layer's offset, then the background will move with the layer if the layer is moved by hand.

Grid Overlay

This option will draw a grid over the background image. This option is best suited for square background images.

If no background picture is selected, the grid will still be displayed.

**Remove Offsets**

Clicking this button will remove the background's x,y offset that was created when the background was moved with the mouse.

Save Picture

You can export the background picture to a regular picture file by choosing Save Picture from the File menu.

Edit Picture

Choosing this menu option will open the currently selected background image in a new window. This window will allow you to crop, resize and rotate the background image.



Click and drag on the picture to make a selection.

Set Picture as Background

Choosing this menu will set the current picture as the background picture.

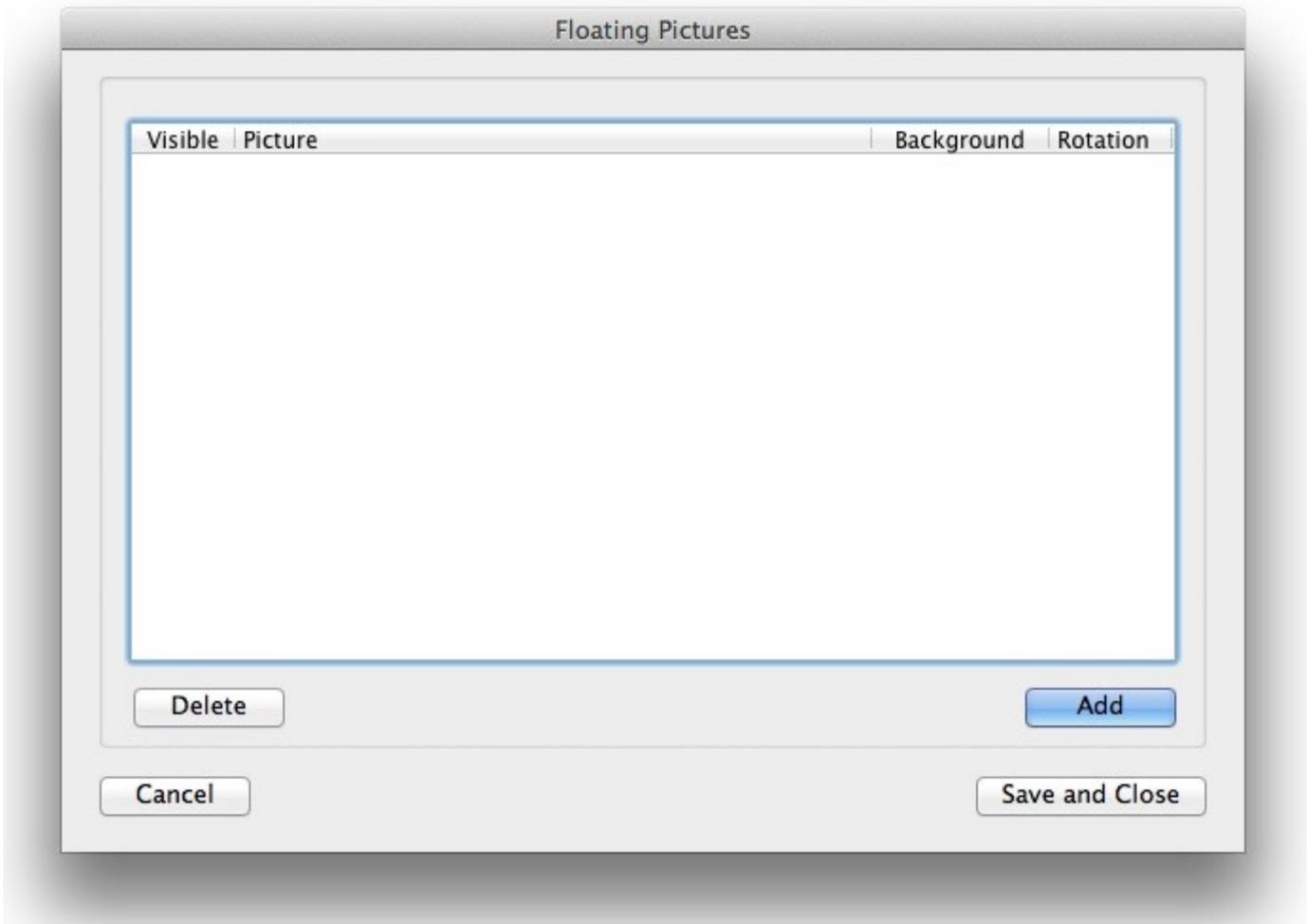
Keep Selection Square

When this menu is checked, when making a selection, the selection will constrain itself to a square. Press the shift key while making a selection will also constrain the selection to a square.

Rotate

Choosing either of the Rotate menus will cause the picture to rotate 1/10th of a degree either clockwise or counter-clockwise. Or choose Rotate Degrees to enter a number of degrees to rotate the picture. Rotation can also be set based on the difference in Lat/Long meta data in two different pictures.

Floating Pictures



This feature lets you place pictures onto your drawing. The pictures can be moved and resized by clicking on them on the drawing.

To add a floating picture, click the add button and select your picture. The picture will be added to the upper-left hand corner of your drawing.

Checking the Background checkbox will cause the picture to be drawn on the background layer, behind the layer drawings.

Click on the Rotation field to enter a degree to rotate this picture by.

To delete a floating picture, select the picture from the list and press the Delete button.

Snapshots

Snapshot Manager

Current Drawing:

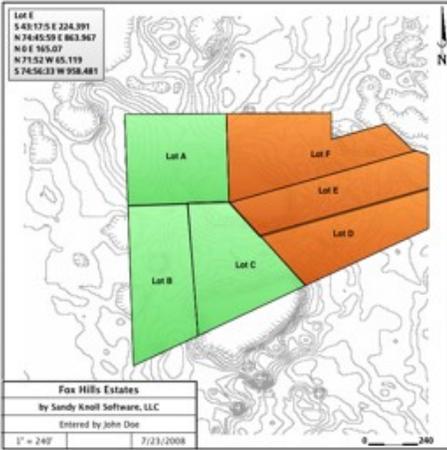


Description:

Save Drawing as Snapshot

Load File as Snapshot

Stored Snapshots:



Lot E	S 43:17:5 E 224.391
	N 74:45:59 E 863.967
	N 6 E 149.037
	N 71:52 W 45.119
	S 74:56:33 W 958.481

Fox Hills Estates
by Sandy Knoll Software, LLC
Entered by John Doe
1" = 240' 7/23/2008



View Snapshot

Print Snapshot

Export Snapshot

Change Description

Delete Snapshot

Set as Background

Close

The Snapshots feature is a repository for images. The images stored as snapshots can come from external sources or they can be created from within the software. Snapshots can be used to store images such as different views of the drawing or different pictures to use as background pictures.

Adding Snapshots:

To save the current drawing as a snapshot, press the Save Drawing as Snapshot button. You can optionally enter in a description for the snapshot prior to pressing the save button.

To load an external image as a snapshot, press the Load File as Snapshot button.

Managing Snapshots:

To manage a snapshot, select it from the Stored Snapshots list. Once selected, the following options will become available:

View Snapshot: Press this button to view the snapshot in a full screen viewer. Press the Close button to close the full screen viewer.

Print Snapshot: Press this button to print the selected snapshot.

Export Snapshot: Press this button to save the snapshot as a external picture file.

Change Description: Press this button to change the snapshots description. This will bring a a form where you can enter in a new description. Press the Save button to close the Change Description form.

Delete Snapshot: Press this button to delete the selected snapshot.

Set as Background: Press this button to set the selected snapshot as the background picture for the drawing.

Opening, Saving, Printing and Exporting

New Drawing

To create a new drawing, choose New Drawing from the File menu. This will open a new, blank window.

New Drawings From Layers. This function will create new drawings from the selected layers. The options are: All Layers, All Visible Layers or Selected Layers.

Open

To open a saved drawing, choose Open from the File menu. The last 5 opened or saved files can be chosen from the Open Recent file menu. You can also use Open to open files sent by the mobile editions of Metes and Bounds.

Open As Layer

An existing saved file can be opened as a new layer in the current drawing by choosing Open As Layer from the File menu.

Saving

To save your drawing, choose Save from the File menu.

To save a copy of your drawing, choose Save As from the File menu.

Pictures

The drawing can also be saved as a picture. To save a picture of the drawing exactly as it appears on screen, choose Save as Picture (Screen) from the File menu. To save a full size picture of the drawing, choose Save as Picture (Full) from the File menu. This option is helpful for pictures that are scaled larger than the screen.

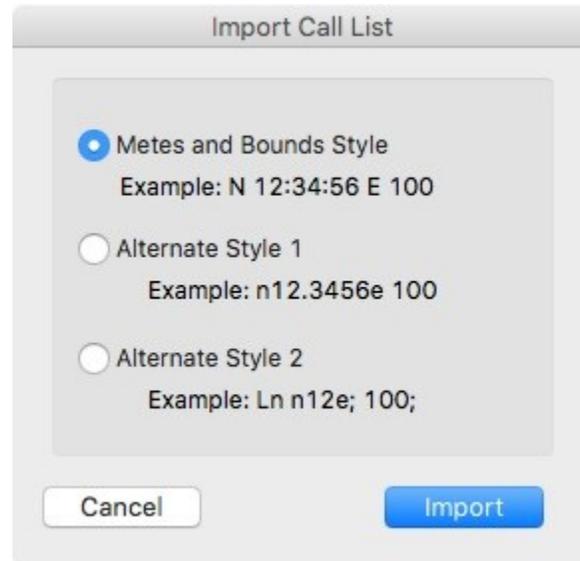
A picture of the current drawing can also be copied to the clipboard. To copy the drawing to the clipboard choose Copy Drawing as Picture from the Edit menu.

Print Call Lists

This will print the call lists for all visible layers.

Import

Import Call List: This option will allow you to choosing between importing a call list in the Metes and Bounds style or one of the Alternate styles. The Alternate styles can be used to import call lists from other 3rd party programs.



Import X,Y Points: This option will allow you to import a list of x,y points and create a new layer from them.

Import DXF File: This option will allow you to import a DXF file.

Import Lat/Long: This option will allow you to import the following types of Lat/Long files:

- Comma separated list of lat/long values
- GPX Tracks
- GPX Waypoints
- KML files

Import Shapefile: This option will allow you to import a Shapefile(.shp).

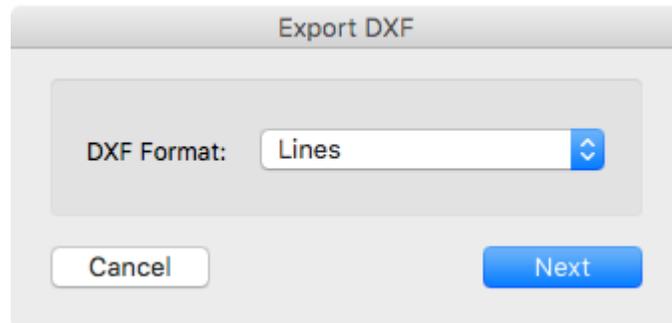
Import GeoJSON: This option will allow you to import a GeoJSON file.

Export

DXF: The drawing data can be exported as a DXF file.

To export just the current layer as DXF, choose Export as DXF from the File menu.

- Often 3rd party applications require the DXF file to be in a specific format in order to import properly. Choose the DXF format that best works with your 3rd party application.



- When export as lines, some of the labeling can be exported as well.



DXF - All Layers:

To export all of the visible layers as DXF, choose Export All Layers as DXF from the File menu. Exporting a single layer will use the [POB X,Y settings](#) (if any) for the coordinates. Exporting all of the layers will use its own coordinates so that the DXF will look identical to the layers drawn on the screen.

Exporting all layers can also include the labeling options.

Point Coordinates: This will allow you to save the point coordinates, as shown using the Show Layer Point Coordinates menu under the Tools menu, as a delimited text file. The points will be saved using the POB X,Y settings (if any). Choosing this menu option will bring up the following window:



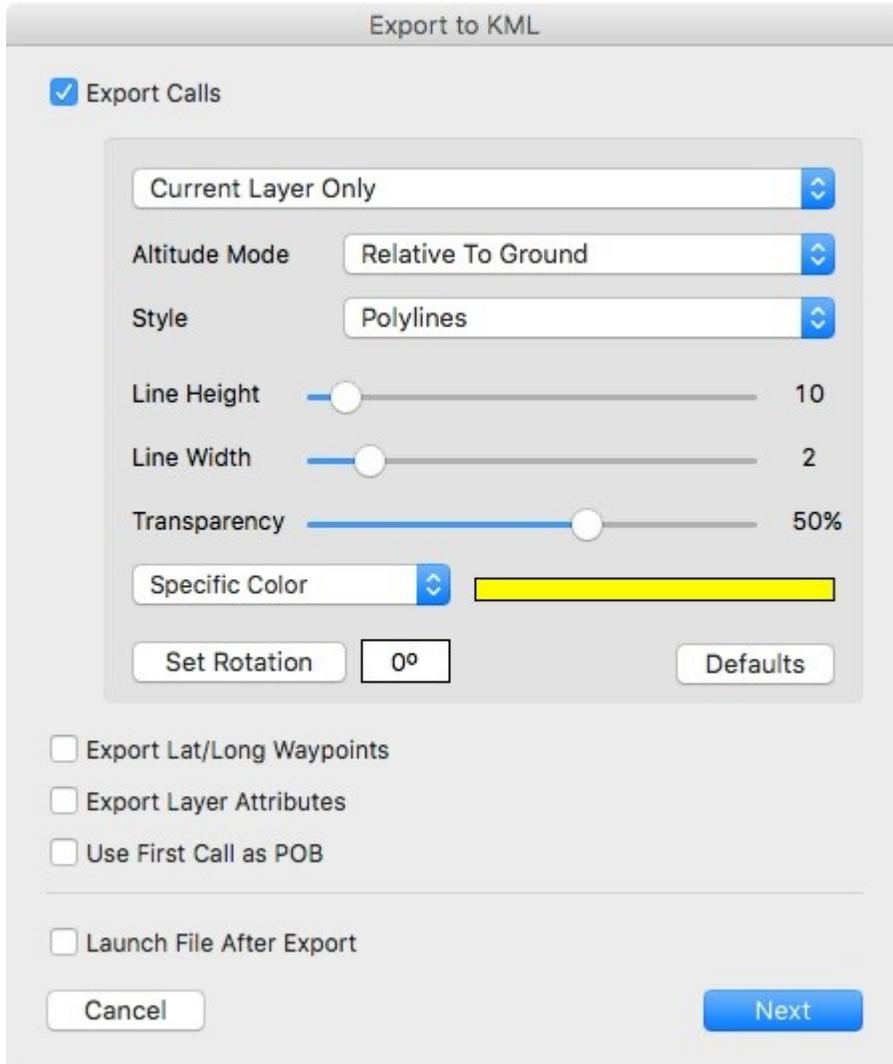
Choose either comma, tab or space from the popup menu to pick which character will be used to delimit the file.

Check the Include Layer # checkbox if you want include a layer number as an additional field in the file.

Choose the unit of measurement so save the coordinates in.

Check the Round to Nearest Unit checkbox to round the exported values to the nearest unit.

KML Format: This will save the current layer in the KML file format. Choosing this menu will bring up the following dialog box that will allow you to modify some of the KML settings.



The image shows a dialog box titled "Export to KML". At the top left, there is a checked checkbox labeled "Export Calls". Below this, there is a large grey-bordered area containing several settings:

- A dropdown menu set to "Current Layer Only".
- "Altitude Mode" set to "Relative To Ground".
- "Style" set to "Polylines".
- "Line Height" slider set to 10.
- "Line Width" slider set to 2.
- "Transparency" slider set to 50%.
- "Specific Color" dropdown set to "Specific Color" with a yellow color bar next to it.
- "Set Rotation" button followed by a text box containing "0°".
- "Defaults" button.

Below the grey-bordered area, there are three unchecked checkboxes:

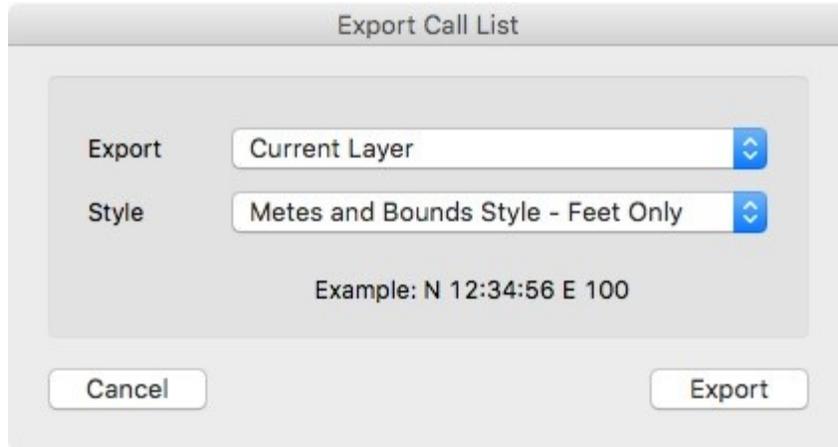
- Export Lat/Long Waypoints
- Export Layer Attributes
- Use First Call as POB

At the bottom, there is another unchecked checkbox:

- Launch File After Export

At the very bottom, there are two buttons: "Cancel" on the left and "Next" on the right.

Call List: This will allow you to export the call list to a text file. The call list can be exported in several different formats, including Metes and Bounds and Azimuths.



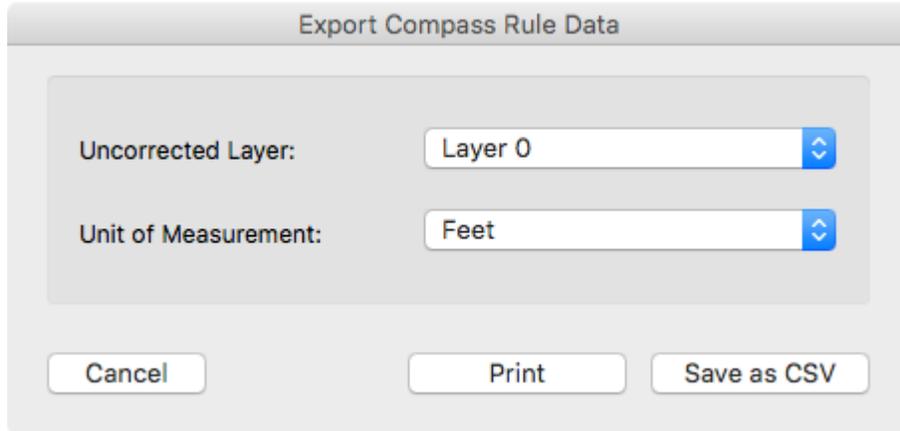
Lat/Long Waypoints as GPX: This will allow you to export any layer's lat/long waypoints as a GPX file.



Export Current Layer as Shapefile: This will allow you to export the current layer as a lat/long shapefile.

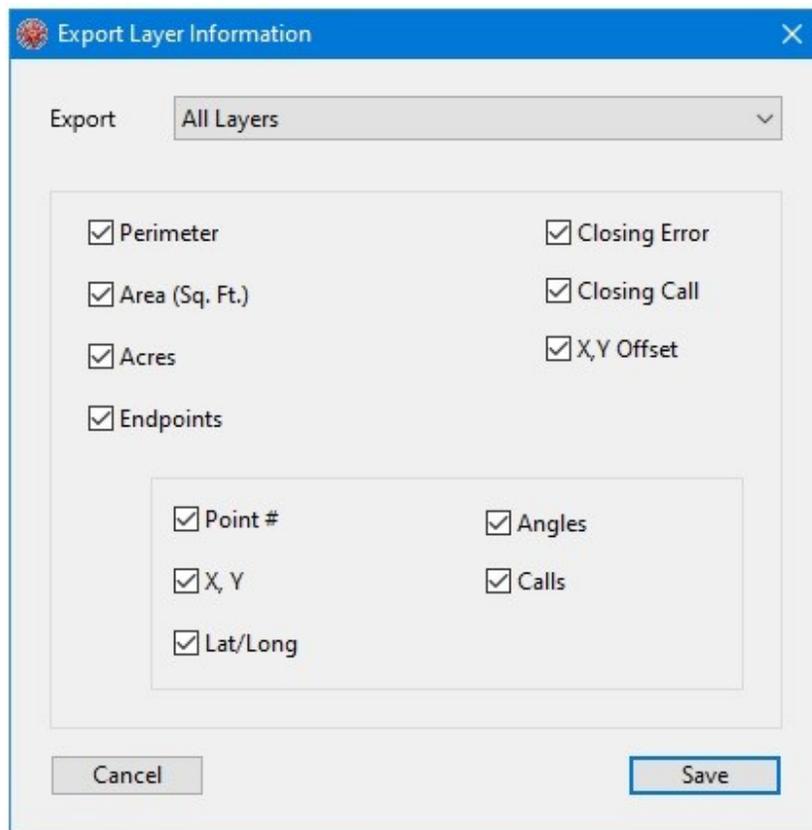
Export Current Layer as SVG: This will allow you to export the current layer as a SVG file.

Export Compass Rule:



This option will allow you to save or print a table showing the compass rule data for the selected layer.

Export Layer Information: This will let you export a text file showing the selected information about a layer and its calls.



Printing

- Page Setup

This will preset you with the page setup dialog for your printer. These settings will be used by the Size Window to Printer and Show Printer Watermark features listed below. This also allows you to set the drawing size for Printer Centric drawings.

Screen Centric Printing

These features help you setup a Screen Centric drawing for printing.

- Size Window to Printer

This will resize the drawing window so that the drawing area will represent a single piece of paper. Printing with the drawing window sized to the same size as the printer settings will produce the highest quality printing.

- Show Printer Watermark

This will cause a watermark to be drawn that represents a single piece of paper.

- Print

This will present you with a print option form. This form allows you to preview how the drawing will print using several different printing options.

- Use the arrows to help center the drawing.
- Press the Scale button to adjust the printings scale.
- Press the Reset button to clear all printing adjustments.

- Print as Printer Centric. This will print the drawing as if drawing was set as Printer Centric. It is also the same as choosing the Size Window to Printer option.
- Printer Watermark. This will print the area of the drawing that is shown under the Show Printer Water overlay.
- Print Scaled. This will scale the drawing to fit on a single sheet of paper.

Printer Centric Printing

Printing a Printer Centric drawing is automatic as the drawing has already been configured for the printer. So features such as Size Window to Printer and Show Printer Watermark are not needed.

- Custom Paper Size

This will allow you to create a custom paper size for the drawing.

- Print

This will print the current drawing.

Print Picture

- (Screen) will resize the visible drawing to fit on a single sheet of paper and then print the drawing as a picture.
- (Full) will print the drawing at the full-scale size and will print on as many sheets of paper as needed.

Calculate Menu

Find Area

You can find the area of a plot by choosing one of the Find options from the Calculate menu. You can find the area in feet, meters, acres and hectares.

- *Current Layer Area From Line Width*
When the layer's line width is set to scale, choosing this option will calculate the area represented by the width of the line.

Area of Layer Minus Sub-Plots

This function allows you to find the area of a master plot, minus the area of multiple sub-plots.

Plot Area Minus Sub-Plot area

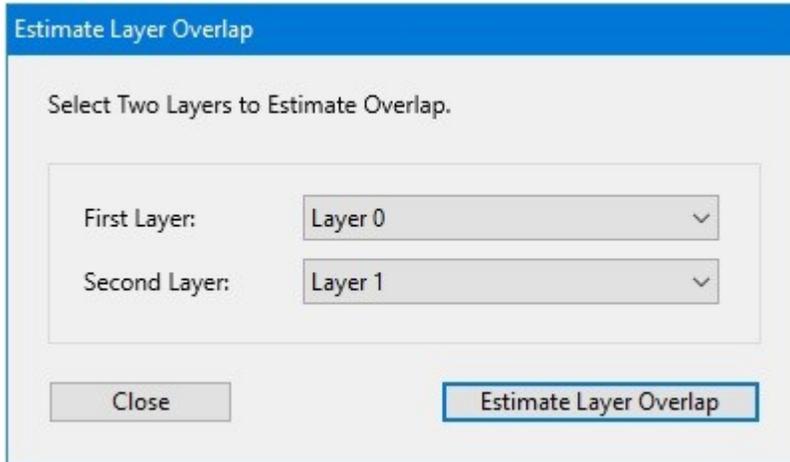
Master Plot

Sub Plots:

<input type="checkbox"/>	Master Plot
<input checked="" type="checkbox"/>	Sub Plot 1
<input checked="" type="checkbox"/>	Sub Plot 2

Choose a master plot from the layer list. Check all of the layers that are considered a sub-plot of the master plot. Press the Calculate button. You will be presented with the area of the master plot, the area of each selected sub-plot, and the area remaining after the sub-plots' area is subtracted from the master plot's area. This information can be copied to the clipboard or used to create a floating text block.

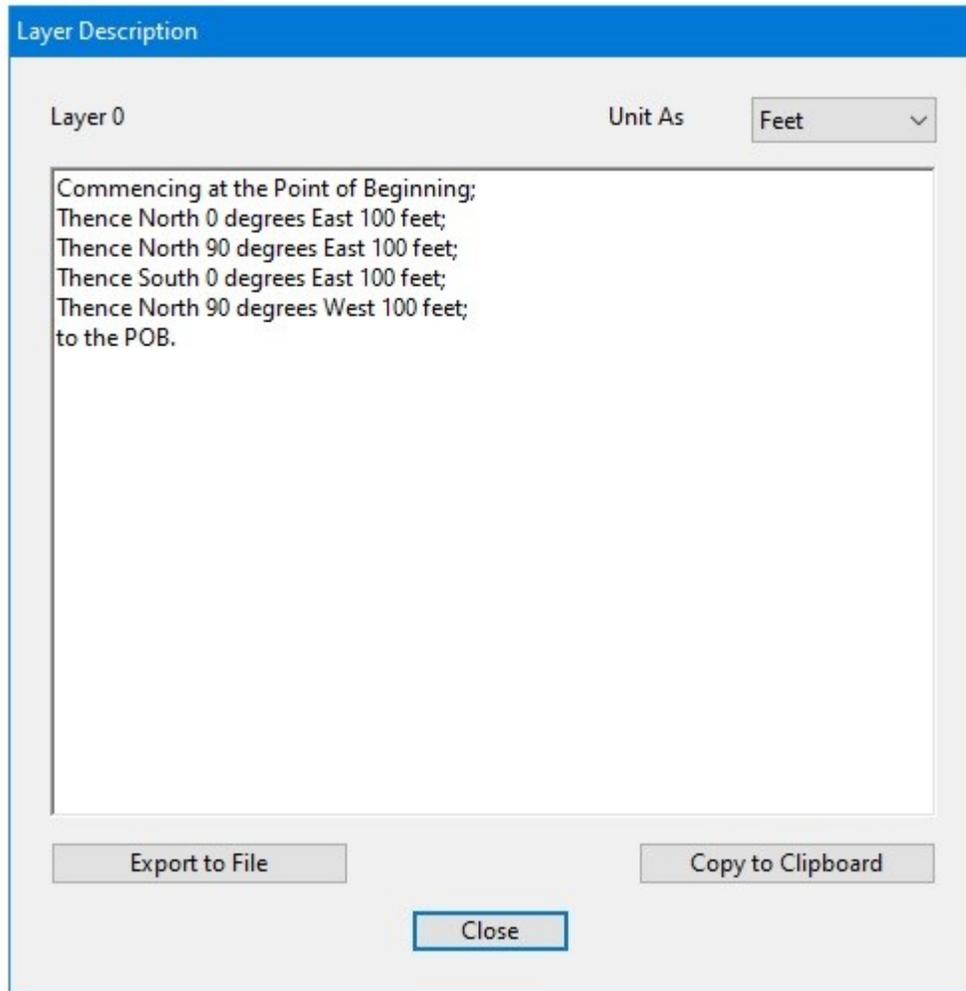
Estimate Layer Overlap



The image shows a dialog box titled "Estimate Layer Overlap". Inside the dialog, there is a prompt "Select Two Layers to Estimate Overlap." Below this prompt, there are two dropdown menus. The first dropdown is labeled "First Layer:" and has "Layer 0" selected. The second dropdown is labeled "Second Layer:" and has "Layer 1" selected. At the bottom of the dialog, there are two buttons: "Close" on the left and "Estimate Layer Overlap" on the right. The "Estimate Layer Overlap" button is highlighted with a blue border.

Choose two different layers and press the Estimate Layer Overlap button. The software will calculate the area where the two layers overlap.

Show Current Layer's Description



This menu will create a description from the current layer's calls. Choose Feet or Meters from the popup menu to create the description using that unit of measurement. The description can be saved to a text file or copied to the clipboard.

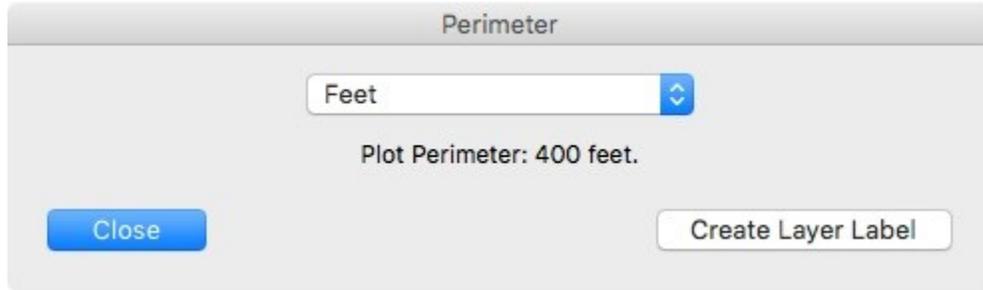
Show Layer X,Y Point Coordinates

You can find the X, Y points of a drawing by choosing Show Point Coordinates from the Calculate menu. These values will use the POB X,Y settings if available. You can choose the number of decimal places to show the list as well as the type of units to use. The list can be exported as a text file or copied to the clipboard.

The dialog box titled "X,Y Coordinates" contains the following elements:

- X Origin: 0
- Y Origin: 0
- 0 Decimal Places (dropdown menu)
- Units: Feet (dropdown menu)
- A list of points: POB (0,0), 0,100, 100,100, 100,0, 0,0
- Export to File button
- Copy to Clipboard button
- Close button

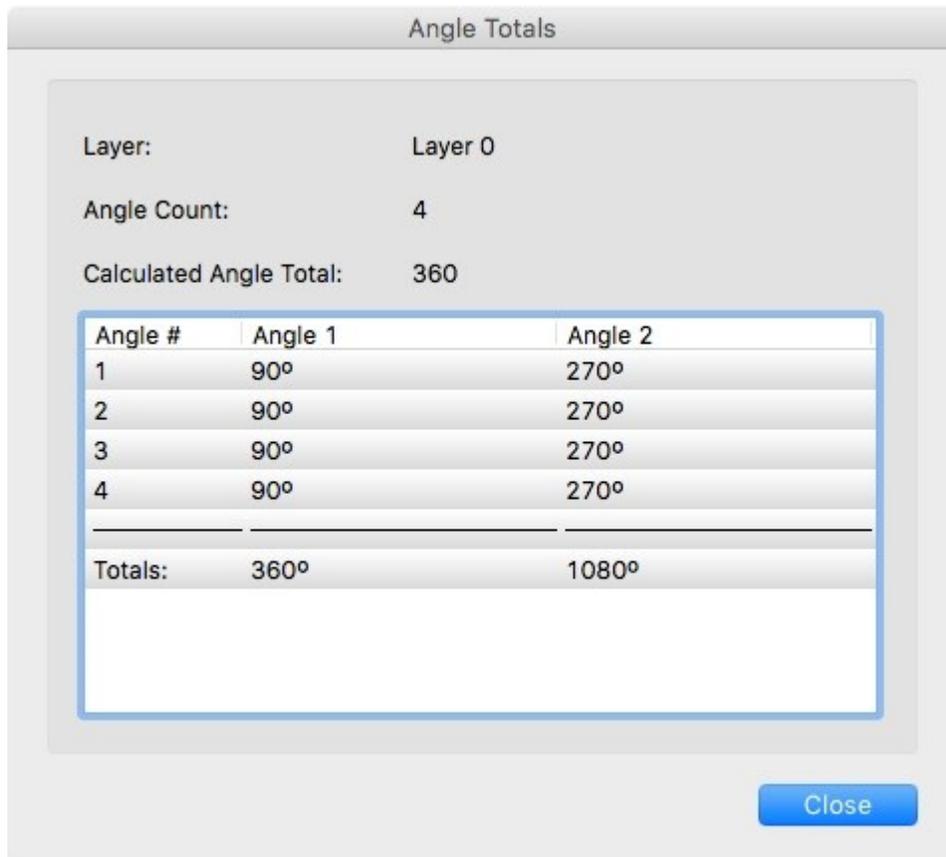
Calculate Perimeter



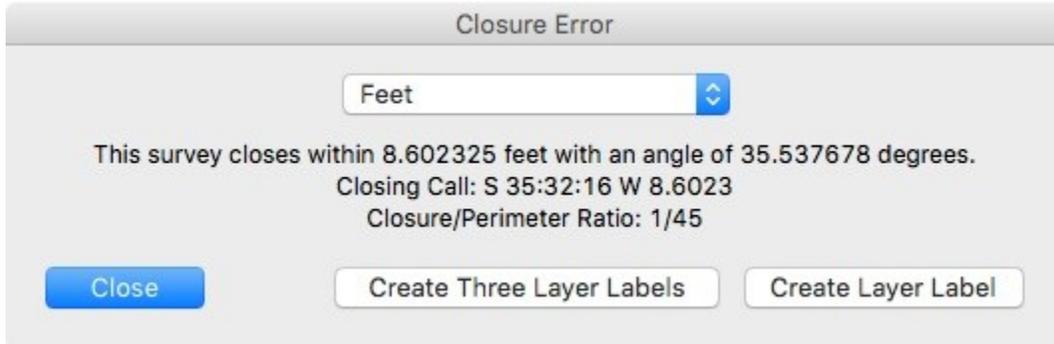
To find the perimeter distance of a plot, choose Calculate Perimeter from the Calculate menu. You can choose which unit of measurement this calculation is made in. You can also create a new [layer label](#) from this calculation.

Current Layer Angle Totals

This function provides a total count of the internal and external angles for the current layer.



Check for Closure



Closure Error

Feet

This survey closes within 8.602325 feet with an angle of 35.537678 degrees.
Closing Call: S 35:32:16 W 8.6023
Closure/Perimeter Ratio: 1/45

Close Create Three Layer Labels Create Layer Label

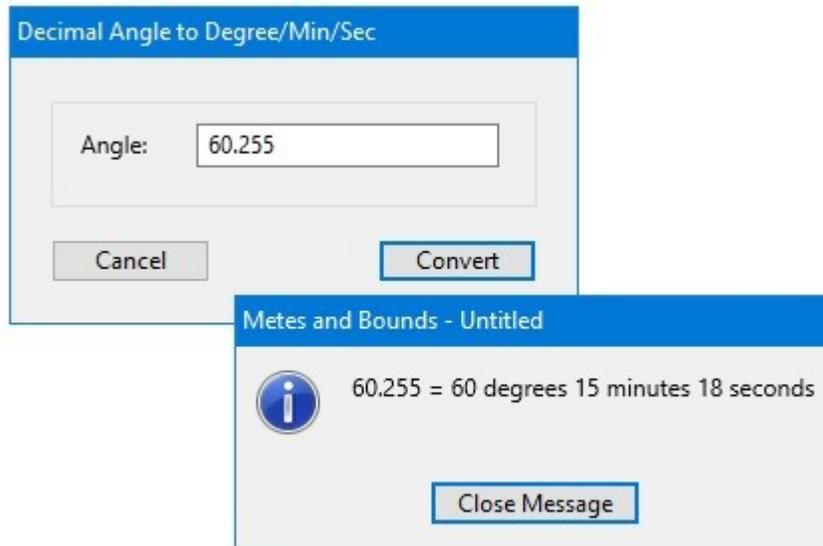
You can check to see if a plot description closes completely by choosing Check for Closure from the Calculate menu. If the plot description does not close, this will show you how far off the description is. You can also create a new [layer label](#) from this data. You can also choose which unit of measurement this information is presented in.

Unit Conversion Calculator

Choose this menu option to bring up the conversion calculator form.

Decimal Angle to Degrees

This will bring up a form that will allow you to convert an angle that is expressed as a decimal into an angle that is expressed in degrees, minutes and seconds.



Decimal Angle to Degree/Min/Sec

Angle: 60.255

Cancel Convert

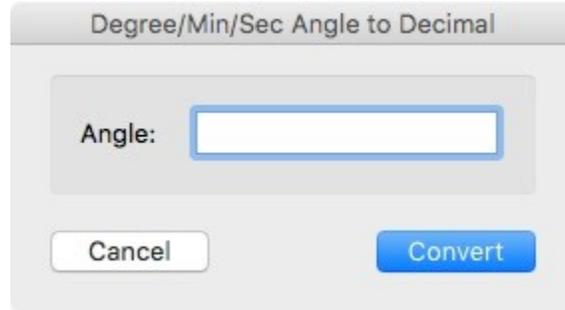
Metes and Bounds - Untitled

60.255 = 60 degrees 15 minutes 18 seconds

Close Message

Degree Angle to Decimal

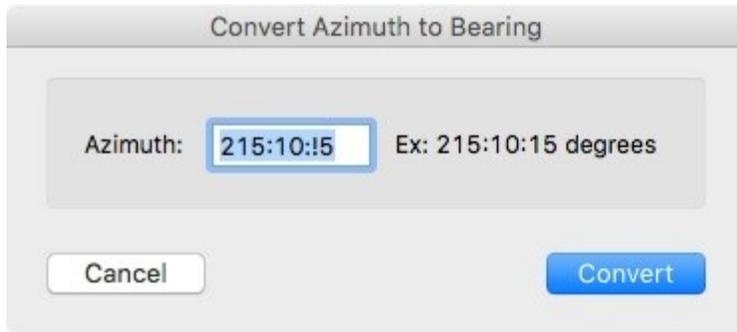
This will bring up a form that will allow you to enter an angle that is in Degree/Minute/Second format and convert it into a decimal angle.



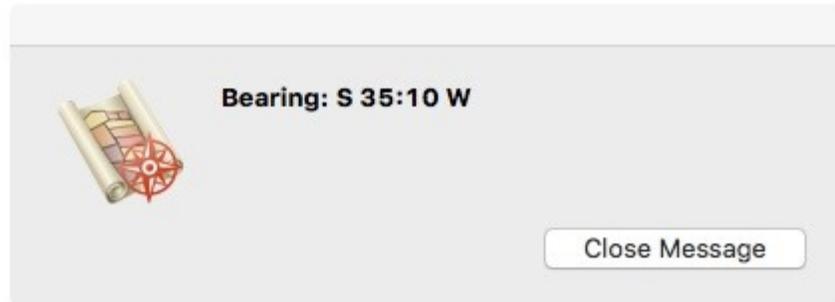
A dialog box titled "Degree/Min/Sec Angle to Decimal". It features a text input field labeled "Angle:" with a blue border. Below the input field are two buttons: "Cancel" and "Convert".

Azimuth to Bearing

This feature can be used to change compass style calls into bounds data.



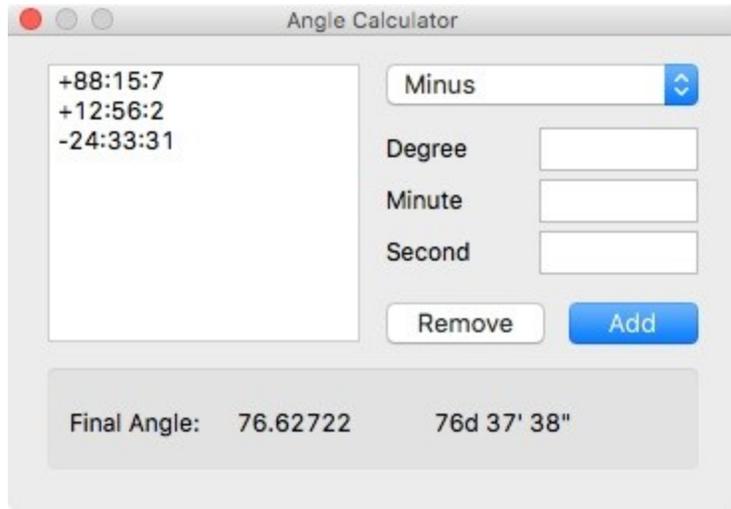
A dialog box titled "Convert Azimuth to Bearing". It features a text input field labeled "Azimuth:" containing the value "215:10:15" with a blue border. To the right of the input field is the text "Ex: 215:10:15 degrees". Below the input field are two buttons: "Cancel" and "Convert".



A message box displaying the result of the conversion. On the left is an icon of a rolled-up scroll with a compass rose. To the right of the icon, the text reads "Bearing: S 35:10 W". At the bottom right of the message box is a button labeled "Close Message".

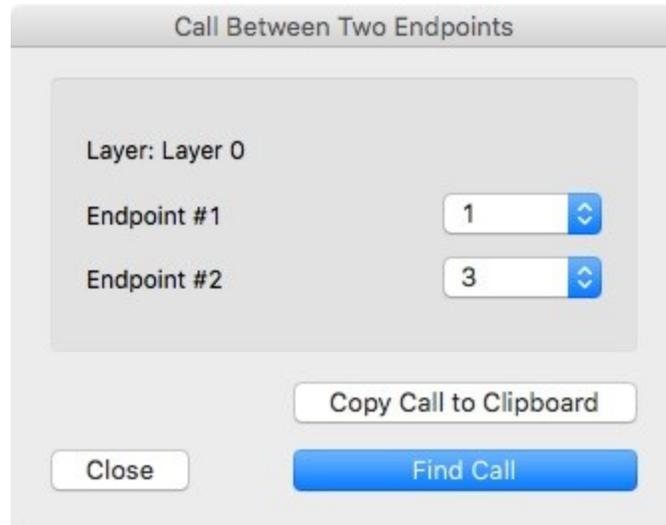
Angle Calculator

This feature can be used to convert a plot description that is written using interior and exterior angles into a plot description that is written using metes and bounds.



Call Between Two Endpoints

This feature will return the metes and bounds call between two endpoints for the current layer.



Latitude / Longitude Calculator

Latitude / Longitude Calculator

Point 1	Point 2	Point Information
Lat <input type="text"/>	Lat <input type="text"/>	Distance:
Long <input type="text"/>	Long <input type="text"/>	Angle:
		Bearing: <input type="text"/>

Layer 0 Decimal Places

Point	Latitude	Longitude
POB	42.	-85.
Point 1	42.0002742163	-85.
Point 2	42.0002742157	-84.9996310039
Point 3	41.9999999994	-84.9996310055
Point 4	42.	-85.

Display as DMS

To calculate the distance, angle and bearing between any two latitude/longitude points enter the data into points 1 and 2. The values will appear in the box on the right. Click on the popup menu widget to copy the values.

To project a waypoint, enter the starting point into Point #1 and click the popup menu widget. Choose Project Point from the popup menu. This will bring up the Project Waypoint form. Enter in the angle and distance to the new waypoint. The new waypoint's lat/long will be placed in Point #2.

Latitude / Longitude Calculator (Continued)

The latitude/longitude of each end point for a given layer can be calculated by choosing the appropriate layer from the layer popup menu and pressing the Get Coordinates button. If the latitude and longitude for the POB has not yet been set, you will be prompted to enter this value. You can choose how many decimal places the coordinates are calculated to by choosing the number from the Decimal Places popup menu.

Once the end point lat/long has been calculated, you can easily enter the point data into the calculator above by selecting the point and pressing either the Set Point 1 or the Set Point 2 button.

A layer's end point lat/long coordinates can be saved as a GPX file from by choosing Export Lat/Long as GPX from the File menu.

A layer's end point lat/long coordinates can be saved as a text file by choosing Export Lat/Long as Text File from the File menu.

A layer's end point lat/long coordinates can be saved as a comma delimited text file by choosing Export Lat/Long as Comma Delimited from the File menu.

A layer's end point lat/long coordinates can be sent to the Lat/Long to Layer tool by choosing Send Coordinates to Layer Converter from the Options menu.

A layer's end point lat/long coordinates can be set as waypoints by choosing the Create Waypoints From Lat/Long from the Options menu. The waypoints will be added to the main window's currently selected layer.

Point #2 can be used to set the current layer's POB by selecting Set Current Layer POB to Point 2 Lat/Long from the Options Menu.

Checking the Display as DMS box will cause the lat/long coordinates to be displayed as Degree/Minute/Second instead of as decimal values.

Declination Calculator – Lat/Long

Declination Calculator

Calculated Points

Point #1

Point #2

Measured Point 1

Lat:

Long:

Measured Point 2

Lat:

Long:

This function will find the declination between two lat/long points calculated by the software and two lat/long points as measured by a separate device. Select the two endpoints for the calculated coordinates. Enter the measured lat/long for the same two points. Press the Find Declination button to find the rotation between the calculated and measured values.

Declination Calculator - Calls

Declination Calculator

Lat/Long Calls

Layer: NW/4

/N 45 W 3733.5238
N 90 W 2640.00
N 0 E 2640.00
S 90 E 2640.00
S 0 E 2640.0

Layer: SE/4

/S 0 E 0.0
N 90 W 2640.00
N 0 E 2640.00
S 90 E 2640.00
S 0 E 2640.0

Find Declination

Close

This function will find the declination between two calls on two different layers Press the Find Declination button to find the rotation between the two calls.

UTM to Lat/Long Calculator

Use this form to convert UTM values to Lat/Long and vice-versa. Easting and Northing values can be entered from a World File, or from a CSV file, by using the popup menu widget.

UTM Lat/Long Calculator

Datum: WGS-84

UTM to Lat/Long Lat/Long to UTM

UTM Zone:

Hemisphere: N

Easting:

Northing:

Calculate Lat/Long

Close

SPCS to Metes and Bounds Call

This feature will return a metes and bounds call for two SPCS points.

SPCS to Metes and Bounds Call

Unit Type:

Point 1

Northing:

Easting:

Point 2

Northing:

Easting:

When creating a layer, the software can import from a comma separated values file in the form of P,Y,X,Z, X,Y or Y,X. It can also import from a Shapefile.

SPCS to Metes and Bounds Call

File Edit

Unit Type: Feet

Single Call Create Layer

Layer Name: From Northing, Easting

Northing, Easting:

Delete Add

Set Lat/Long

Return to POB

UTM Zone:

Hemisphere: N

Create Layer

Close

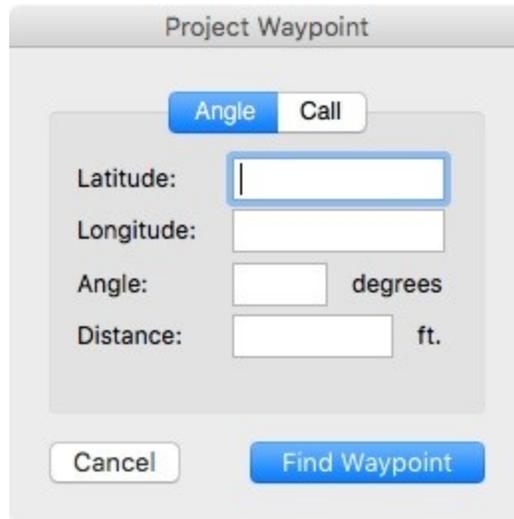
The Unit Type can be either Feet or Meters.

Check the Set Lat/Long checkbox to set the layer's POB Lat/Long based on the first row of data and the entered Zone and Hemisphere.

Check the Return to POB checkbox to have the software create an additional call from the last point back to the first point.

Project Waypoint

Project Waypoint takes the Lat/Long of an existing waypoint, an angle and a distance and calculates a new waypoint.



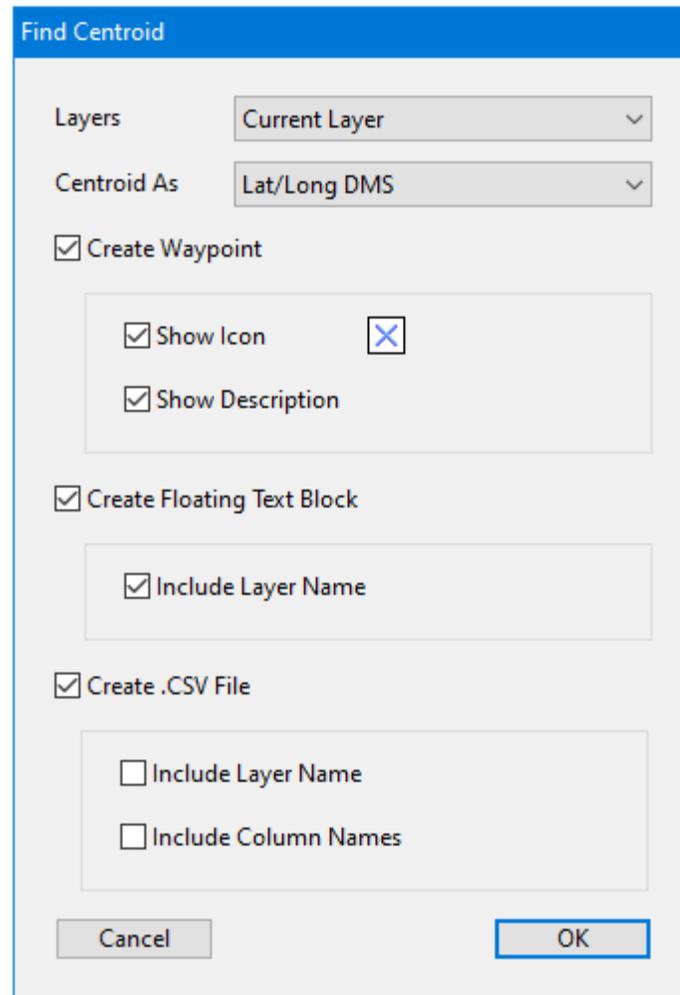
The dialog box titled "Project Waypoint" has two tabs: "Angle" (selected) and "Call". It contains four input fields: "Latitude:" (with a vertical cursor), "Longitude:", "Angle:" (with "degrees" to its right), and "Distance:" (with "ft." to its right). At the bottom are "Cancel" and "Find Waypoint" buttons.

Or, you can use the Lat/Long of an existing waypoint and a metres and bounds call to calculate a new waypoint.



The dialog box titled "Project Waypoint" has two tabs: "Angle" and "Call" (selected). It contains three input fields: "Latitude:", "Longitude:", and "Call:". Below the "Call:" field is the example text "Ex: N 45 E 100 ft.". At the bottom are "Cancel" and "Find Waypoint" buttons.

Find Centroid



The image shows a dialog box titled "Find Centroid" with a blue header bar. It contains several settings:

- Layers:** A dropdown menu set to "Current Layer".
- Centroid As:** A dropdown menu set to "Lat/Long DMS".
- Create Waypoint:** A checked checkbox. Below it is a sub-panel with:
 - Show Icon (with a blue 'X' icon next to it)
 - Show Description
- Create Floating Text Block:** A checked checkbox. Below it is a sub-panel with:
 - Include Layer Name
- Create .CSV File:** A checked checkbox. Below it is a sub-panel with:
 - Include Layer Name
 - Include Column Names

At the bottom, there are "Cancel" and "OK" buttons. The "OK" button is highlighted with a blue border.

This option will allow you to find the centroid for the selected layer(s). You have the option to create waypoints, a floating text block or create a comma separated text file from the calculated centroids.

Tools Menu

Set Scale

This option allows you to set the drawing's scale numerically. This is the same as Right-Clicking on the scale in the drawing options and choosing Custom.

Measurement Tool

Checking this menu will put the software in measurement mode. This mode allows you to see the distance between any two points on the screen. It will also show you the call represented by the line between those two points.

When first activated, there will be a message in the upper left hand corner of the drawing prompting you to pick the first point. Click anywhere on the drawing to set the first point. If you hold down the shift key while selecting a point, the endpoints will be marked with easy to hit targets. Then, click anywhere else on the drawing to set the second point. The message will now change to the distance between those two points. Click anywhere on the drawing to reset the measurement tool. The measurement mode can be turned off by pressing the escape key, clicking on the measurement message or by un-checking this menu.

After the second point has been selected, you can turn the line into a call by selecting Measurement Tool - Add Call from the Tools menu.

Holding down the shift key while selecting this menu will activate the measurement wand instead. See Dimension Layer Wand for details.

Call Drawing Tool

Selecting this tool will allow you to draw calls on the drawing. If the current layer already has at least one call, the drawn call will be appended to the existing call list. If the current layer does not contain any calls, the first call created will be an invisible call from the drawing's origin to the first point selected. All subsequent calls will be visible. This tool is not available if the drawing's origin is set to Auto-Center. Press the Escape key (Esc) or uncheck the tool menu to exit call drawing mode. Hold down the control key to limit the precision to whole numbers. Holding down the shift key while clicking will cause the line to be invisible.

Dimension Layer Wand

Selecting this option will activate the dimension layer wand. The dimension wand will scan the drawing to find the next, non-white pixels to the left and to the right. It will then create a new layer, formatted as the selected dimension line format in the preferences. This new layer will be a line that spans the distance between the left most and right most pixels. To create a vertical line, press and hold the Alt key while clicking on the drawing.

A dimension line layer can also be created by right-clicking on a layer call line and choosing Dimension Line Layer from the popup menu.

Move Background

When this menu option is checked, the background can be moved by clicking on it and dragging it with the mouse. Uncheck this menu option when you are finished moving the background.

Alignment Tool

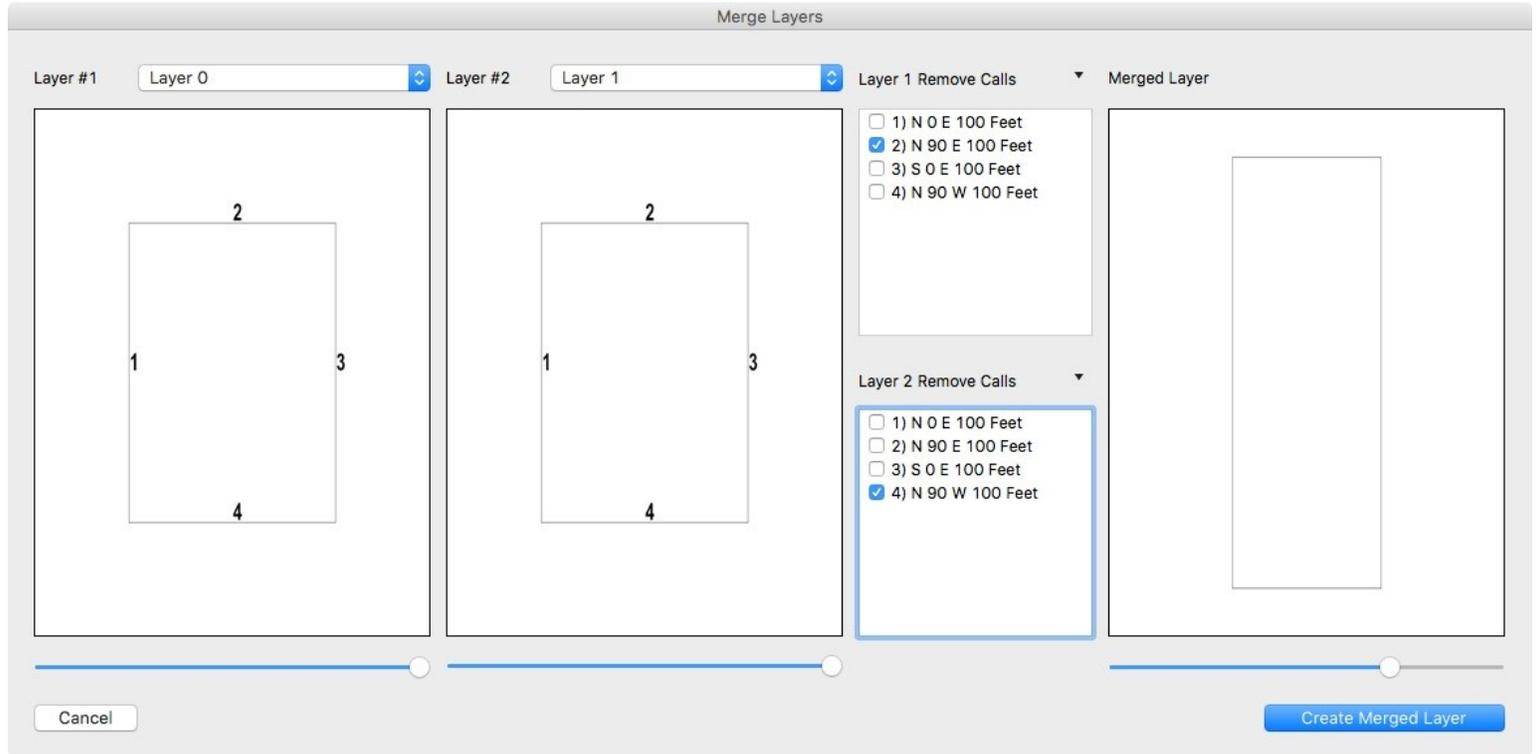
Checking this menu will put the software in layer alignment mode. This mode allows for point-and-click positioning of layers.

While in this mode each layer will be drawn with its endpoints on. Click on the first endpoint and then click on an endpoint of a second layer. The first endpoint will align itself to the second endpoint.

Merge Layers

Merge Layers Combined

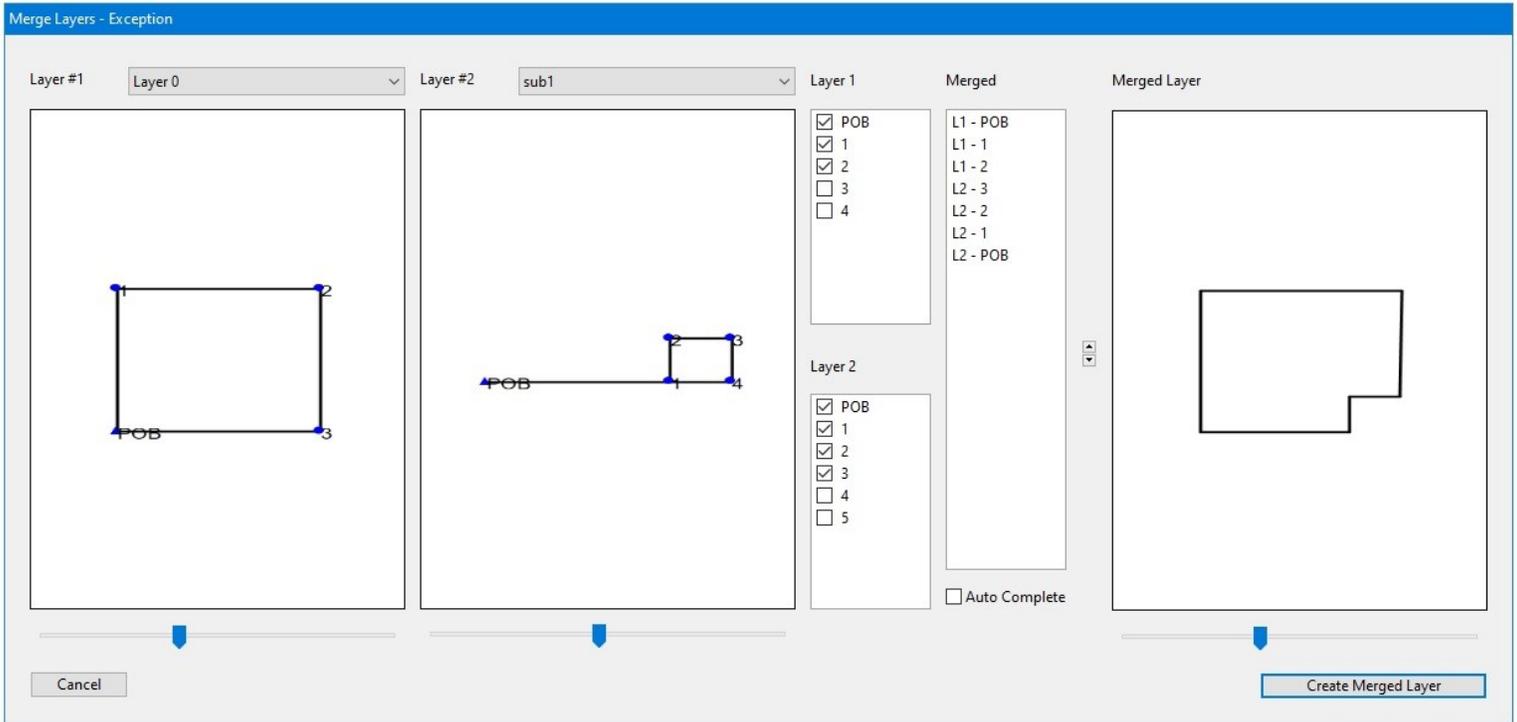
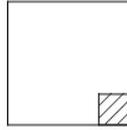
This function helps with merging two layers into a single, new layer.



See Tutorial #8 for additional information on merging layers combined.

Merge Layers Exception

This function helps with merging two layers into a single, new layer.



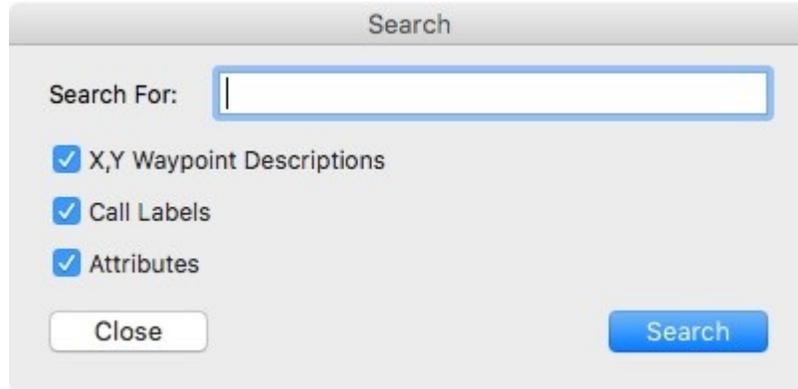
[See Tutorial #10](#) for additional information on merging layers exception.

Segment Calls

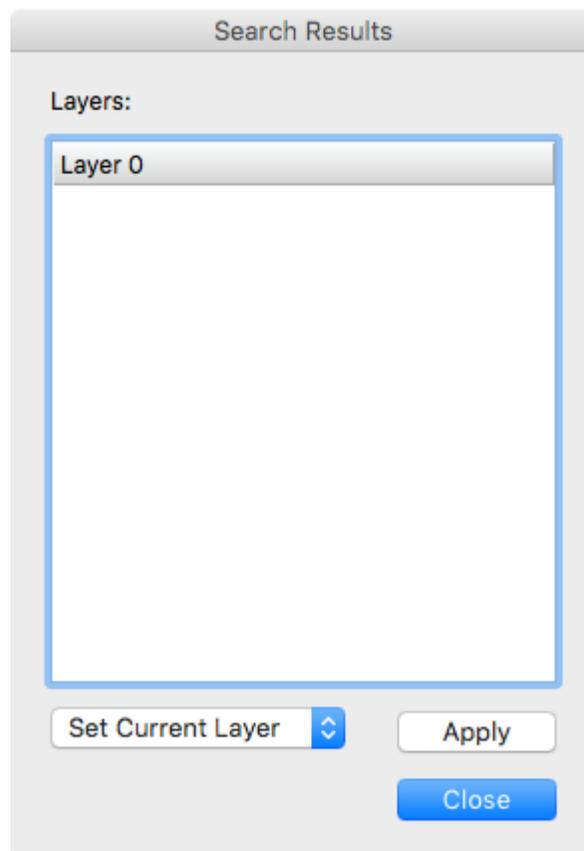
Segment Calls allows you to break calls into lengths that are no longer than N feet. Doing this will create a new layer with the calls broken into lengths no greater than X feet. This only effects lines and will not make any changes to curves.



Search for Text



The search function will search for a piece of text. It will search the X,Y Waypoint Descriptions, Call Labels and layer Attributes for this text. The search results will be displayed in the Search Results window. If you uncheck a checkbox, then that area will not be searched.



The search results window will show which layers contain the searched for text. Selecting a layer from the list and pressing the Set Current Layer button will set that layer to be the drawing's current layer.

Description Cleanup Tool

See Tutorial #10.

Data Entry Mode

See Entering Data.

Set Views to Data Entry Mode

While in Data Entry Mode, choosing this menu option will set the "view as" options for the call list, line lengths and floating call list to match that of the current data entry mode.

Number Pad Entry Mode

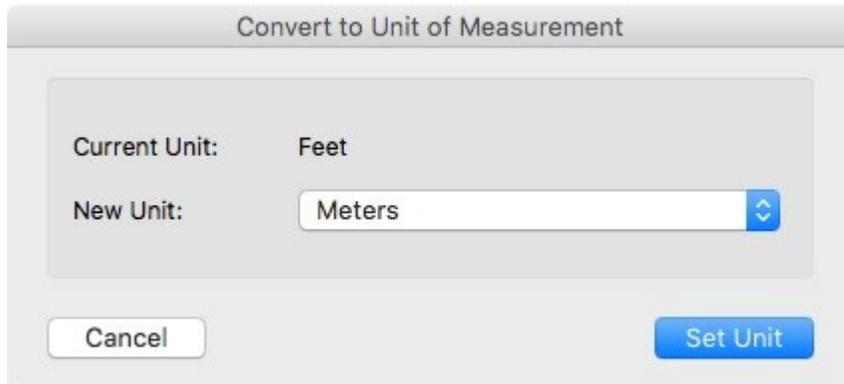
While this menu is checked, the call entry field on the main window will function in Number Pad Entry mode. This mode allows you to enter line calls using just the number pad. The entry format used is N33.3333E 100. Use the + key to enter an N or E. Use the - key to enter an S or W.

Convert Auto-Center to Center of Drawing

This option will convert a drawing from Auto-Center to Center of Drawing.

Current Layer Convert Unit Type

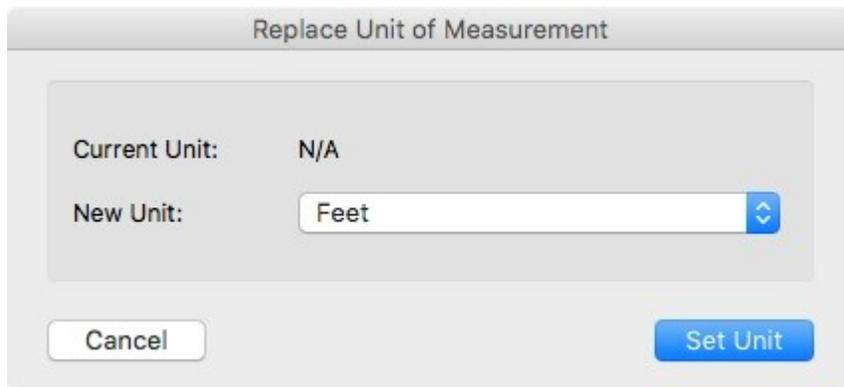
This option allows you to convert all of the calls in the current layer to a specific unit of measurement.



The dialog box is titled "Convert to Unit of Measurement". It contains two rows of labels and values. The first row is "Current Unit:" followed by "Feet". The second row is "New Unit:" followed by a dropdown menu showing "Meters". At the bottom, there are two buttons: "Cancel" on the left and "Set Unit" on the right.

Replace Unit Type – Current Layer or All Layers

These options will replace the unit of measurement for all calls in the current layer or in all of the layers. These functions will not convert the length entered for the call to the new unit of measurement. For example, 100 feet will become 100 meters.



The dialog box is titled "Replace Unit of Measurement". It contains two rows of labels and values. The first row is "Current Unit:" followed by "N/A". The second row is "New Unit:" followed by a dropdown menu showing "Feet". At the bottom, there are two buttons: "Cancel" on the left and "Set Unit" on the right.

Convert Lat/Long to Layer

Convert Lat/Long to Layer

Layer Name: Layer From Lat/Long

Latitude	Longitude	Description
46	-85	POB

Latitude: 46 Longitude: -85 Add

Description: POB Delete

Display as DMS Project Point

Cancel Convert to Layer

To convert a set of latitude, longitude coordinates into a set of metres and bounds calls, enter the points into the above form and press the Convert to Layer button. This will create a new layer and populate it with the data represented by the latitude and longitude points. You can set the layer's name by entering it in the Layer Name field.

Pressing the Project Point button will take the current value in the Lat/Long fields and prompt you for an angle and a distance (in feet). It will then create a new point at that location.

Convert Lat/Long to Layer (continued)

Choosing Import GPX File from the File menu will import a list a waypoints or tracks to be converted to a new layer.

Choosing Import Delimited Text File from the File menu will import a list of lat/long coordinates to be converted to a new layer.

Choosing Import KML File from the File menu will import a layer from a KML file. If the KML file includes more than one layer you will be prompted to select which layer to import. Note: Importing KML files only works on text based KML files. Binary KML files cannot be imported.

Convert X,Y to Layer

The dialog box titled "X,Y to Layer" contains the following elements:

- Name:** Layer From X,Y Points
- Unit:** Feet
- Coordinate List:**
 - 0,0
 - 0,100
 - 100,100
 - 100,0
- Input Field:** 100,0
- Example:** 100,100
- Buttons:** Delete, Add, Cancel, Convert to Layer

This form will convert a set of X,Y coordinates into a set of Metes and Bounds calls.

Enter the data as X,Y and press the Add button.

Pressing the Delete button will delete the selected X,Y coordinate.

Pressing the Convert to Layer button will create the Metes and Bounds calls.

Press the Cancel button to close the form without creating any Metes and Bounds calls.

You can choose a name for the layer by entering it into the Name field.

You can choose the unit of measurement that the units are in from the unit popup menu.

Import Comma Separated Values: Choosing this option from the File menu will allow you to import a comma delimited text file of X,Y points.

Import Multi-Field Comma Separated Values: Choosing this option from the File menu will allow you to select which fields to import for the X,Y Points.

Drawing Menu

This menu will allow you to open any of the data entry and drawing/layer settings forms.

Set Scale

This menu will bring up the custom scale setting for the drawing.

Set Origin Lat/Long

This menu will bring up a window for setting the drawing's origin Lat/Long.

Window Menu

Show Status Bar

Checking this menu will cause the status bar to be visible for this window. The status bar will show information for which drawing item is currently under the mouse cursor.

Show Cursor X,Y

Checking this menu will cause the cursor x,y to be visible in the lower right of the window.

Show Toolbar

Checking this menu will cause the toolbar to be visible for this window. The toolbar can be customized in the preferences.

Show Tab Bar

Checking this menu will cause the tab bar to be visible for this window.

The bottom of the Window menu will show all open files. Selecting one of these menu items will bring that window to the foreground.

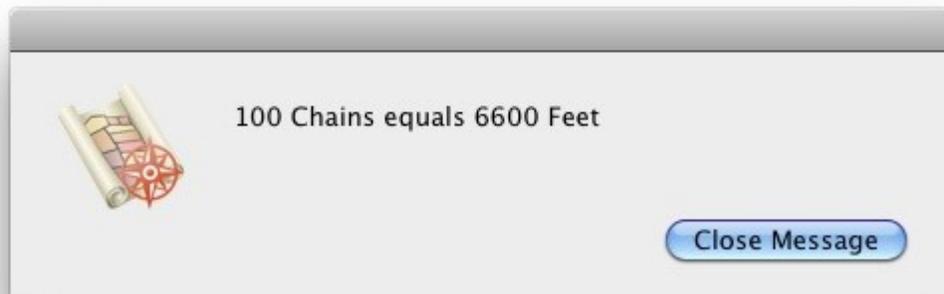
Conversion Calculator

You can use the conversion calculator to convert between any two units of measurement.

Conversion Calculator

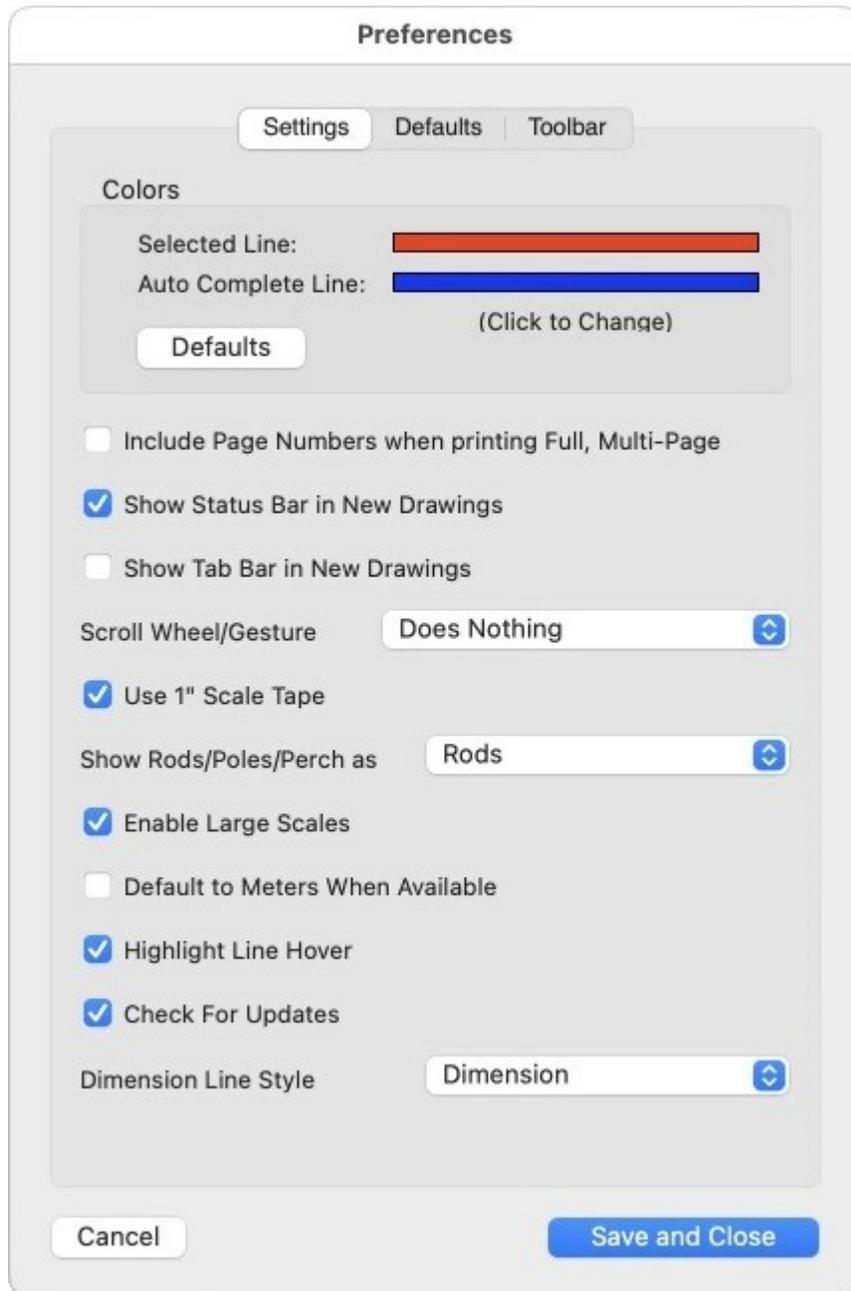
Distance:

to



Preferences

Settings Tab



Colors:
To change the various colors that Metes and Bounds uses to draw the different components, click on the associated colored rectangle. Press the Defaults button to return the colors back to their original settings.

Include Page Numbers

This option allows you to print the page numbers when printing a full/multi-page drawing.

Show Status Bar in New Drawings

Checking this will cause the status bar to be visible when a new drawing window opens.

Show Tab Bar in New Drawings

Checking this will cause the tab bar to be visible when a new drawing window opens.

Scroll Wheel / Gesture

This popup menu allows you to choose how the scroll wheel, or other gestures, will function.

Use 1" Scale Type

Checking this box will cause the scale tape to always draw as 1" instead of the auto-adjusting its size.

Show Rods/Poles/Perch as ...

Use this setting to select what label the software uses for Rods/Poles/Perch in places such as the floating call list and line labels.

Enable Large Scales

Checking this option will increase the size the amount by which the drawing can be zoomed out. However, some features may not respond as expected while this option is turned on.

Default to Meters When Available

When this option is checked, the software will default to meters instead of feet when choosing meters is available. For example, if calls are entered on the main screen, the lengths will be considered to be meters instead of feet. And other forms, such as the floating call list, will default to showing meters instead of feet.

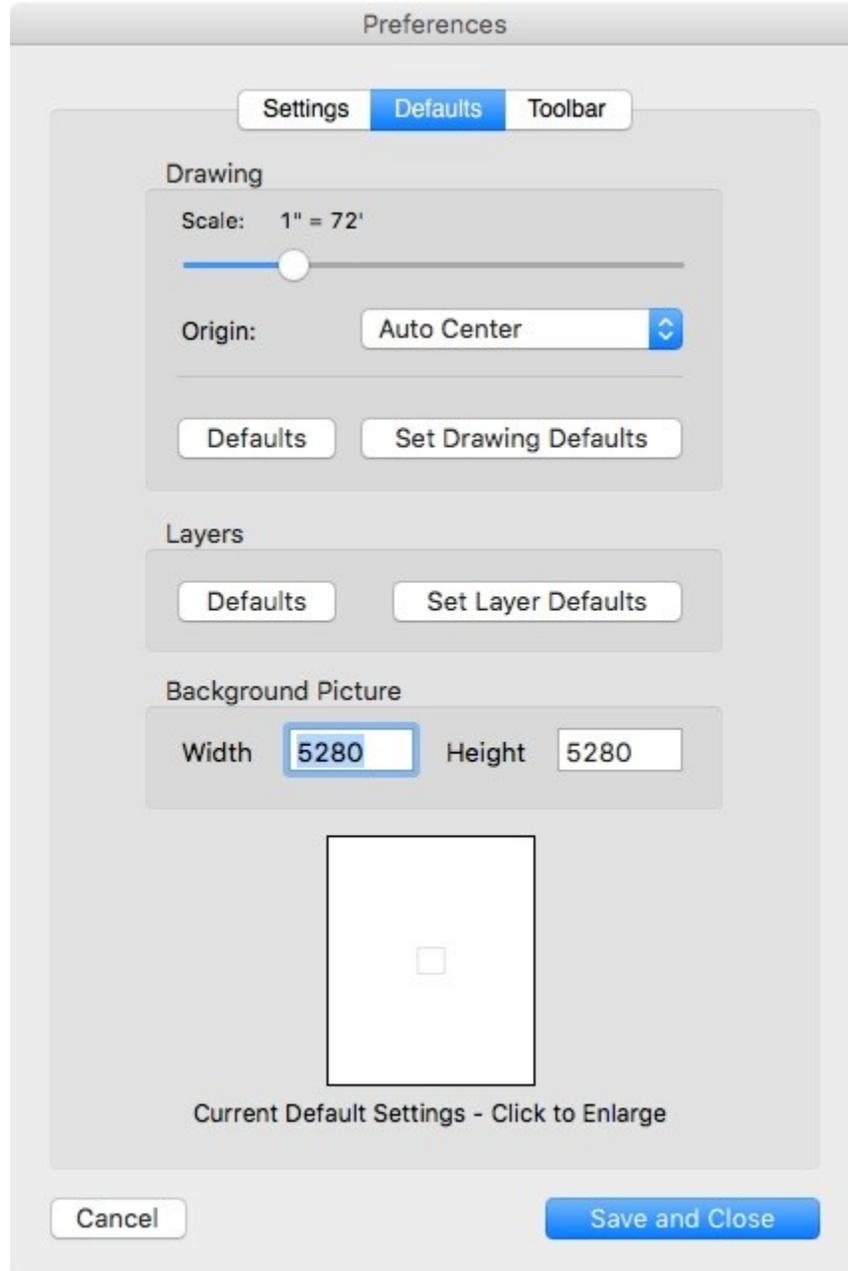
Highlight Line Hover

Check this box to show when a line is hovered over. The line will be highlighted with a green highlight.

Check For Updates

Check this box to be notified when new versions of the software are available.

Defaults Tab



Drawing:

Use this section to set the default scale, origin and other options for new drawings.

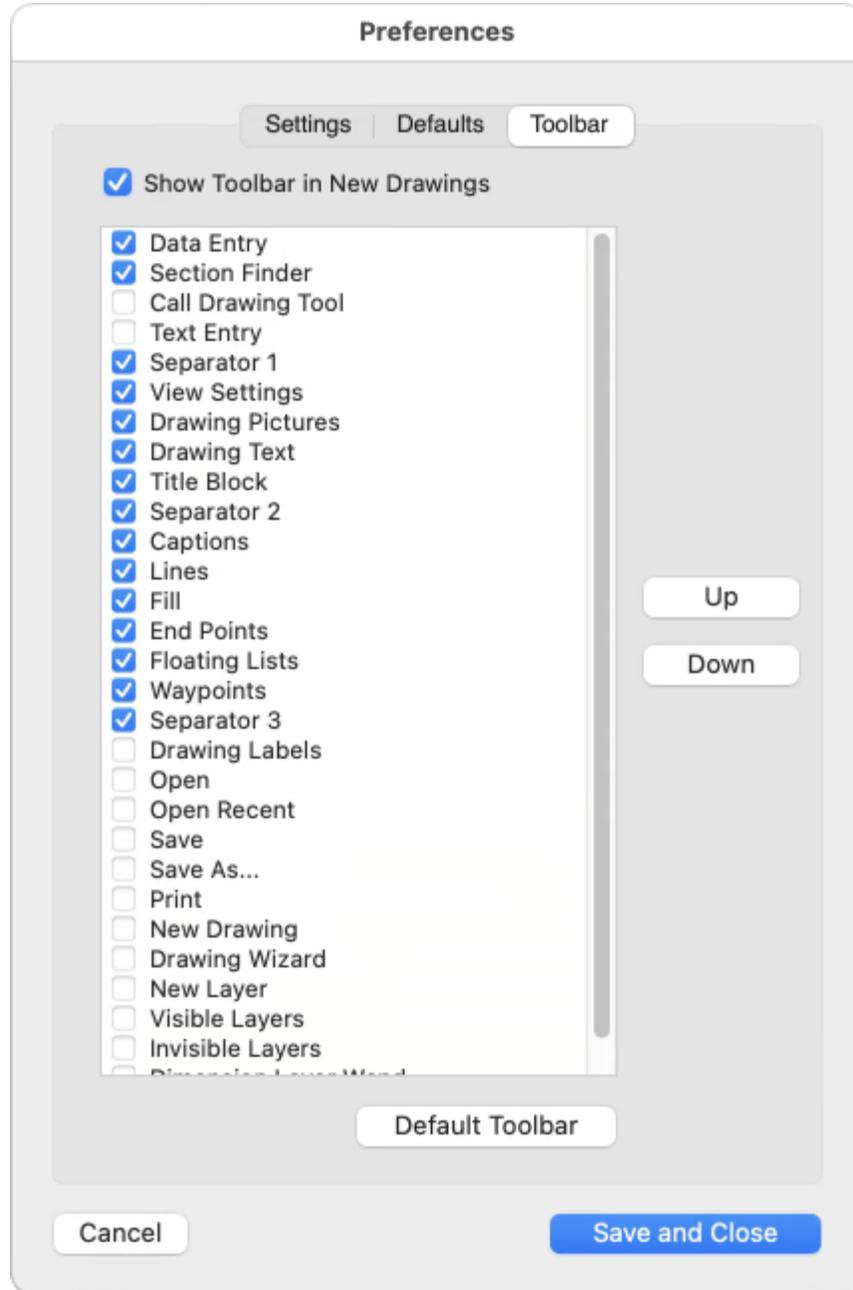
Layers:

Press the Set Layer Defaults button to set the current layer's configuration to be used for all new layers. This can be cleared by pressing the Defaults button.

Background Picture:

Set the default width in feet and the default height in feet to use for the background picture.

Toolbar Tab



Show Toolbar in New Drawings

Checking this will cause the toolbar to be visible when a new drawing window opens.

Toolbar Items

The items that are checked will appear in the toolbar.

How to Register, Upgrade or Renew Metes and Bounds

How to Register:

To register Metes and Bounds choose Register... from the File menu. Enter your serial number into the serial number box and press the Register button. If you need to purchase a serial number you can press the "Click for additional Registration Options" label. Then press the Purchase Basic button to purchase the Basic edition or Purchase Professional to purchase the Pro edition.

Upgrading from Basic to Pro:

If you wish to upgrade your Basic edition to the Pro edition you can do so by selecting Upgrade... from the File menu. Enter your upgrade serial number into the serial number box and press the Register button. If you need to purchase an upgrade serial number you can do so by pressing the Upgrade to Professional button.

Renewing a 1-Year Update Period:

If your update period has expired or is about to expire, you can renew it for another year by choosing Renew Update Period... from the File menu. Enter your renewal code (serial number) in the renewal code box and press the Renew button. If you need to purchase a renewal code you can do so by pressing the Purchase Renewal Code button.

You can view how long your current update period is good for by opening the About Box. A new renewal code will add 1 year from the date that the renewal code was purchased.

Please Note: Renewing is optional. If you are happy with your current version, then there is no need to renew. You only need to renew if you want to keep up with all of the latest updates.

Note #2: If you currently own the Basic edition and the update period has expired and you have been considering upgrading to the Pro edition, now may be a good time to do so. The Basic to Pro Upgrade will also renew your update period for another year.

Registering Metes and Bounds on a new computer:

If you have purchased a new computer, or are recovering from a hard drive failure, you can use these steps to re-register Metes and Bounds:

1. Enter your Basic or Pro serial number. If you purchased the Basic edition and then upgraded to the Pro edition, you will need to enter in your Basic serial number first and then enter your Basic to Pro Upgrade serial number.
2. If your Basic or Pro serial number has expired, you will be prompted to enter in your renewal code. Enter in your most recent renewal code.

Expired Serial Numbers/Renewal Codes:

If the software tells you that your serial number has expired, that means that your serial number is too old to use the latest version of the software. There are two options available to address this.

1. Purchase a [1-Year Update Renewal](#). This will allow you to use the latest version of the software. It will also allow you to use any new updates that are released in the next year.
2. Install an older version of the software that will work with your serial number. To find the last version of the software to support your serial number, open the About Box and click on the Advanced tab. Note the Renewal Code. Then go to the [older versions](#) website and download the version that matches your code.