# APEXSOFTWARE
Innovation In Motion

Apex v5 Pro Drawing Features – 2012 Addendum

This outline is part of a software presentation of the Assessor edition of Apex v5 Pro sketch software to describe general drawing features. It is not exhaustive and is not intended to replace Apex Training documentation or hands-on Training services.

Modifiable – Area Code Table:

Area definitions or codes are used to identify polygons for valuation by the CAMA or other integrated valuation system. Area Codes can be viewed by groups / sub-groups or sorted by Codes or more descriptive area Names.
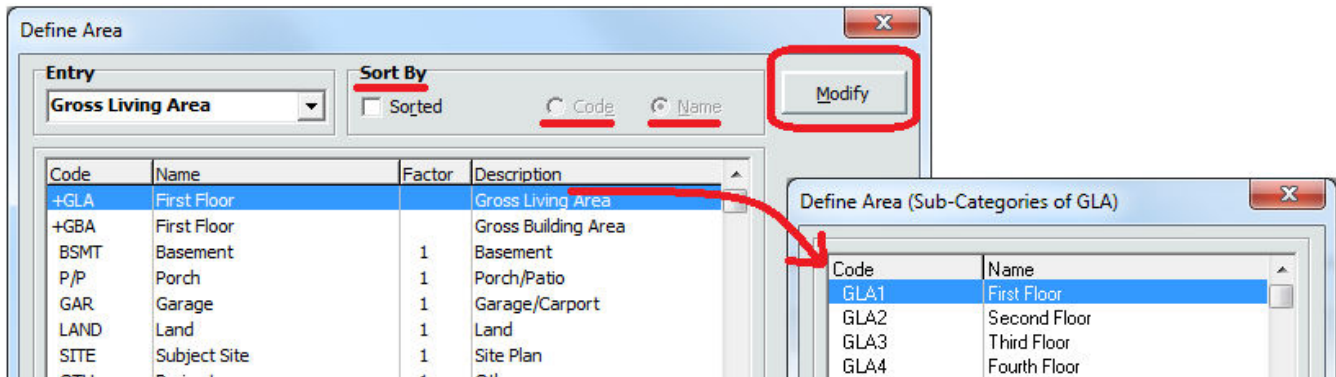
Posting area codes, names & other information:

Apex will automatically post the area Code or Name on the polygon for the label along with the area calculation information – posted as text items in the area polygons. Areas can have specific wall heights, multipliers or factors to calculate multiple layers or partial areas and additional details such as wall area, base calculation, factor and/or adjusted calculations can be automatically posted on the sketch to represent the internal math computations.
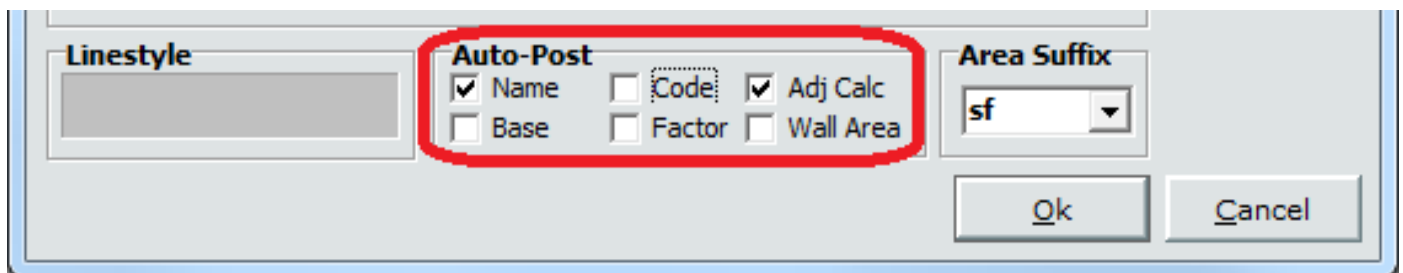

Dimension Placement Options:

By default, the wall dimension will be displayed in **red** text after the wall is anchored. They can be repositioned with the mouse, with the arrow keys or by a specific distance and direction. This allows the user to keep the dimensions from overlapping each other in small areas. The dimension font size can also be changed by rolling the mouse wheel or pressing the **[+]** or **[-]** keys. Press the **[Enter]** key a 2nd time to anchor or press the **[Delete]** to erase a redundant dimension.

Apex can be set to **Automatic Dimension Placement** mode so the dimension will anchor at the same time the line is anchored. This saves an extra step on each line. Dimensions can be moved after the sketch is completed to 'clean up' the drawing and there are several macro dimension editing tools available that may be more efficient for high production drawing. Change the dimension placement mode by going to the Tools Menu and select **[Configuration].** Open the additional Tabs by selecting **[Admin]** and enter the required Password. (Default is: **password**)
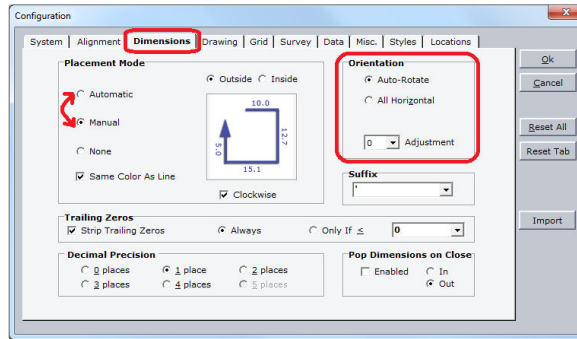

Quick Shapes:

Squares or Rectangles can be drawn by entering the **Width & Height dimensions** using the **[X]** key between the measurements. Quick shapes can be rotated if the W x H dimensions are transposed. Press the **[Enter]** key to anchor the rectangle in the desired position.

Multi-Sided shapes can also be created with a similar short cut. Enter the number of sides, then the **[@]** sign and then enter the line length. Press **[Enter]** to anchor.

### Example: 24.5' x 16.2'

### Example: 10 Sides @ 6.5' each:
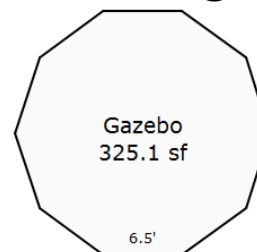
Cycle Dimension Feature:

All wall dimensions are posted to one side of the line or the other based on the direction they are drawn. Dimensions on any drawing can be moved individually after the polygon is complete OR re-positioned as a group using the **Cycle Dimensions** tool. Press the **[Ctrl]** & **[F10]** keys to toggle between all dimensions INSIDE, all dimensions HIDDEN and all dimensions OUTSIDE. Note that dimensions are re-posted for ALL lines in their default positions and in the default font size.
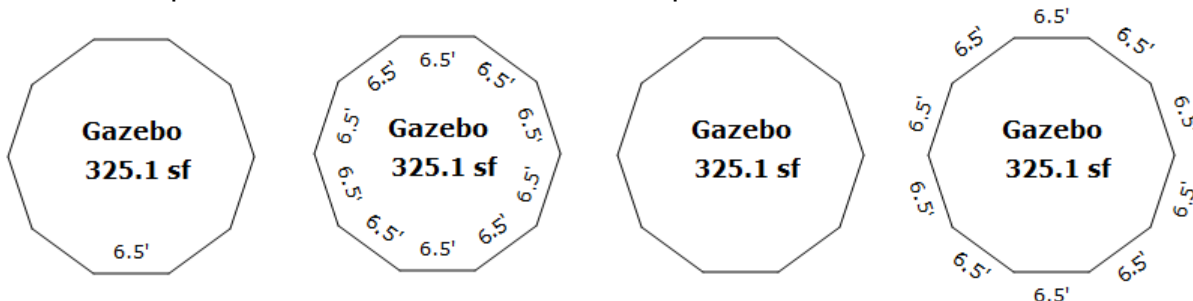
Drawing Angles:

Apex displays the rise and run measurements for mouse drawing or you can simply type the rise and run measurements on the keyboard (i.e. **[10] [→]; [6] [↑]; [Enter]**). Apex automatically calculates the length of the line based on the rise and run. The Orthometrics tool can be set to hold angled lines at specific angles to help keep corners straight for mouse drawing.
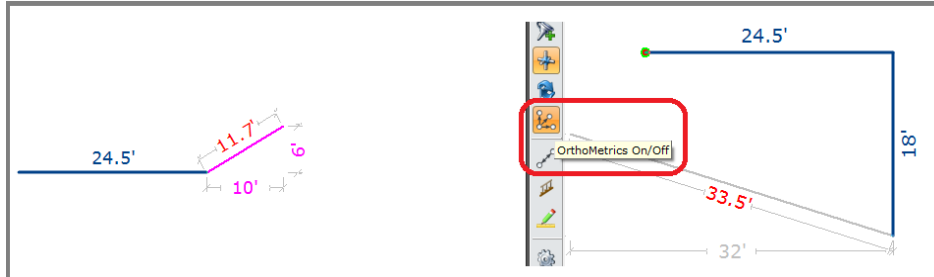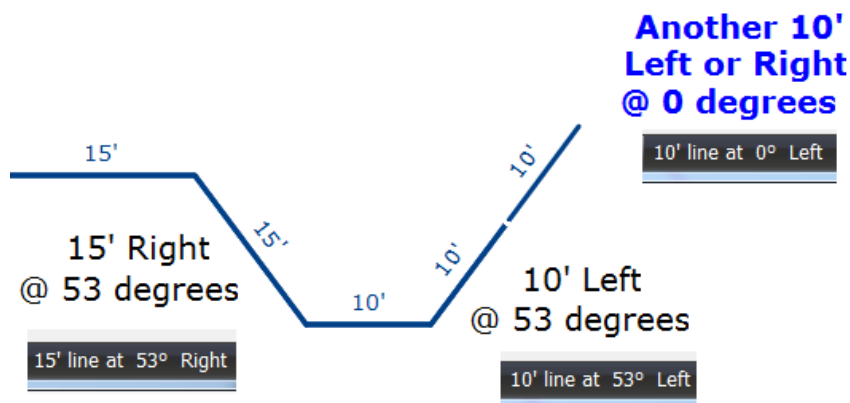
Turn Feature:

If you are unable to measure the Rise & Run measurements of an angle, Apex allows you to enter the actual angle directly into the line dimension string. Type the line distance and then press the **[L]** or **[R]** keys for tuning to the Left or to the Right. The Turn Feature will default to 90 degrees unless you type a specific angle. The dimension and angle are displayed in the lower left corner of the screen. Press **[Enter]** to anchor the line at that angle of departure. This is especially helpful when drawing a series of right angles corners after an irregular angle has been drawn.
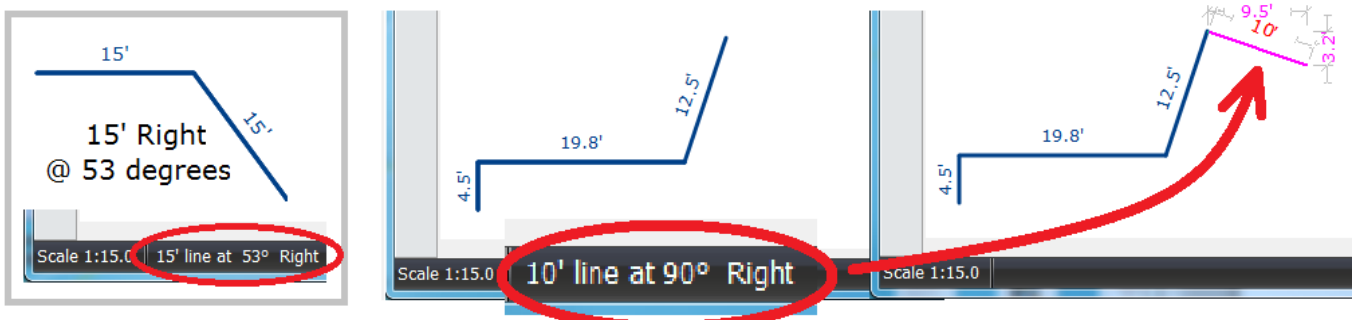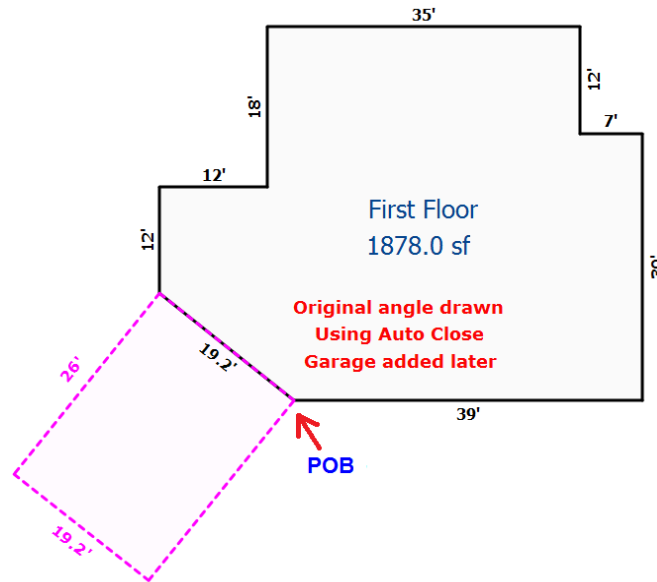
Turn / Angle Extension:

By entering "0" for the degree of angle, a new line will be drawn as an extension of a previous line. This is a great tool for setting up wall intersection points on angled lines that will come in handy for other polygons on the same sketch.
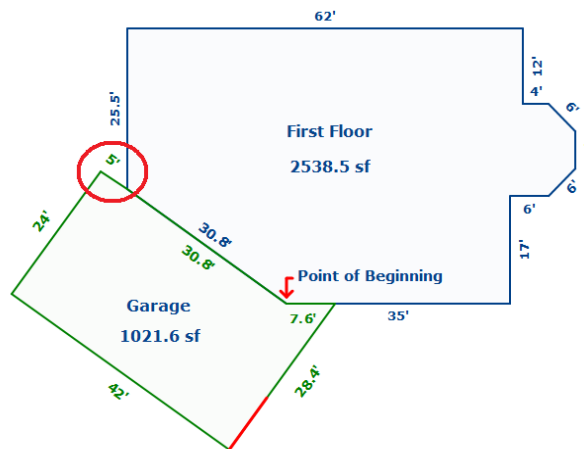
Pop /Turn Features in action:

1. **[J]** key to jump to corner, establish POB.
2. **[Ctrl]** & **arrow keys** to "trace" 19.2' angled wall. **[Enter]** key to anchor.
3. **[2] [6]** & **[L]** keys to draw 2nd line 26' to the left. **[Enter]** key to anchor.
4. **[1] [9] [.] [2]** & **[L]** keys to draw 2nd line 19.2' to the left. **[Enter]** key to anchor.
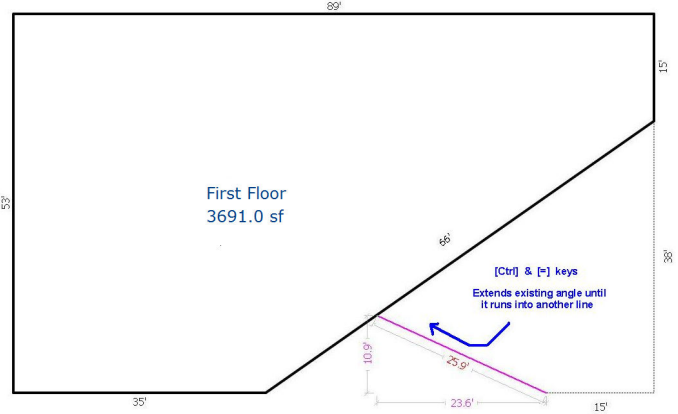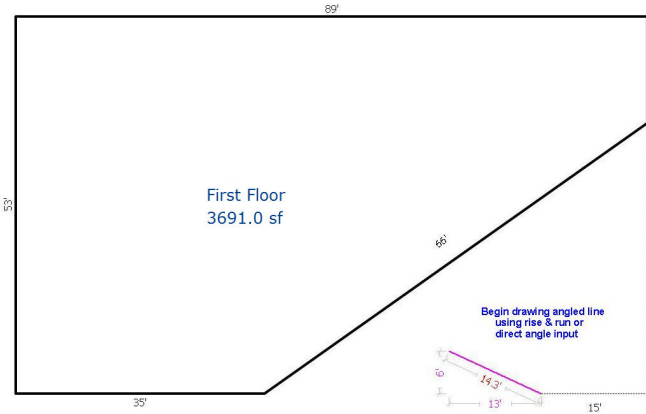5. **[A]** key to Auto Close drawing. **[Enter]** key to anchor.
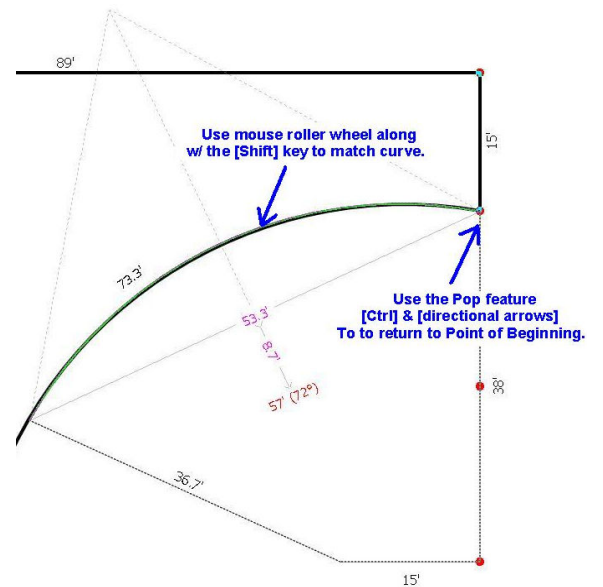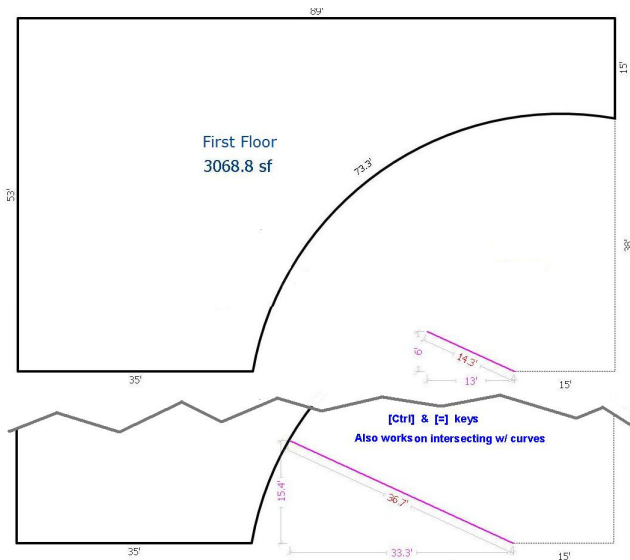

Angle Extension / Angle Intersect:

1. **[J]** key to jump to corner, establish POB.
2. **[Ctrl]** & **arrow keys** to "trace" 19.2' angled wall. **[Enter]** key to anchor.
3. **[5] [L]** or **[R]** & **[0]** keys to extend angle another 5'. **[Enter]** key to anchor.
4. **[2] [6]** & **[L]** keys for 90 degree Turn feature. **[Enter]** to anchor.
5. **[4] [2]** & **[L]** keys for 90 degree Turn feature. **[Enter]** to anchor.
6. **[5] [L]** for 90 degree Turn feature, DO NOT **[Enter]** (starts last wall direction).
7. **[Ctrl] [=]** keys to extend angled line to intersection with building. **[Enter]**.
8. **[A]** key to Auto Close drawing. **[Enter]** to anchor.

4

Additional Angle Extension Examples:

If the only 6' x 13' Rise & Run measurements can be determined, enter the information but do not anchor the line. Press the **[Ctrl]** & **[=]** keys to extend angle back to main structure.


First Floor
3691.0 sf

Begin drawing angled line
using rise & run or
direct angle input

First Floor
3691.0 sf

[Ctrl] & [=] keys
Extends existing angle until
it runs into another line

Angle Extension Works on Curves also:

First Floor
3068.8 sf

[Ctrl] & [=] keys
Also works on intersecting w/ curves

Use mouse roller wheel along
w/ the [Shift] key to match curve.

Use the Pop feature
[Ctrl] & [directional arrows]
To to return to Point of Beginning.

57' (72°)

Drawing Curves:

Apex helps you draw curves with quick tools for simple curves with default arcs as well as features for drawing any custom curve needed. *If you can measure it, Apex can draw it.*

Default curve properties are displayed on the right side of the **Curve Properties** dialog (access by pressing the **[F7]** key). Use the **[↑]** or **[↓]** keys to select a default curve arc. For example, most rounded corners are 90 degree arcs. Use the **[L]** or **[R]** keys to make the curve turn to the Left or to the Right. Press the **[Enter]** key to use these curve properties.
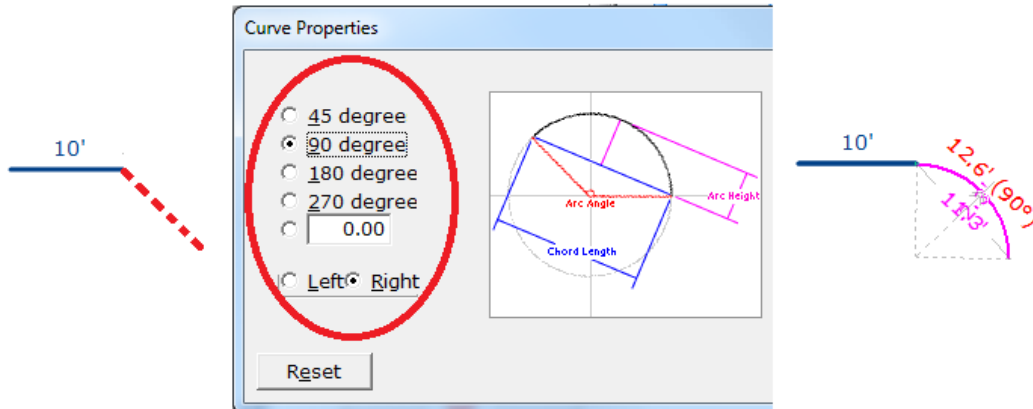
The **Mouse Roller Wheel** is a very easy way to change a straight line into a curve. Press the **[Shift]** key to change the curve arc in smaller increments.
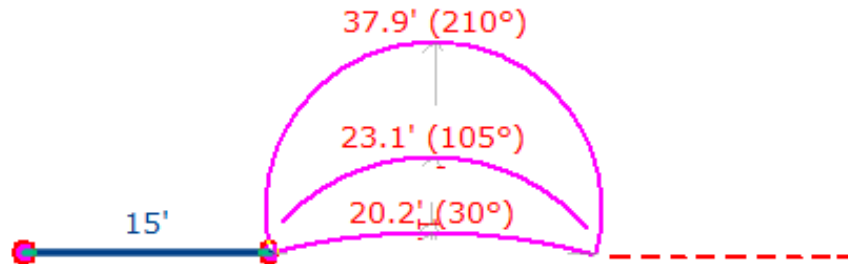

Custom curves can be drawn by creating a straight line to represent the chord (imaginary straight line between the beginning and end of the curve). Do not anchor the line but go to the Curve Properties dialog (**[F7]** key). Use the **[Tab]** key to navigate to either the **Arch Length** or the **Arc Height** and type the appropriate measurement. Apex automatically calculates the degree of the arc. Press the **[Enter]** key to use these curve properties.
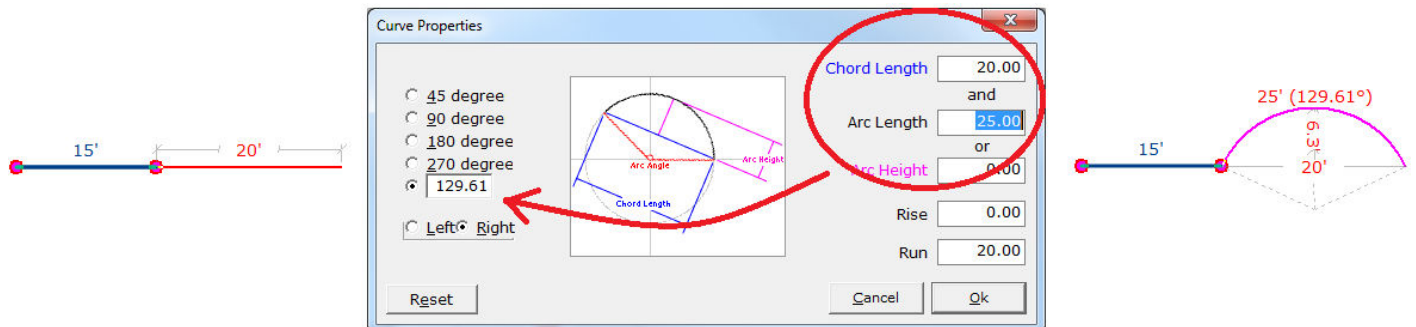
Additional Line Editing Tools in Apex:

The primary tutorial covered the **[Delete]** & **[Insert]** line editing tool to make adjustments to line lengths in order to square the polygon. Apex also offers a secondary Line Edit tool that may be more efficient in specific situations.

The example used in the primary tutorial was to change a 37' wall to a 35' wall. Using that same example, after anchoring the 15' angled wall & reviewing the Call to POB, press the **[Crtl]** & **[L]** keys. A **black triangle pointer** will appear on the first wall drawn. Move this pointer using the **[Tab]** keys until it is on the 37' wall. Press **[Enter]** and the 37' wall will be erased. The drawing will look like it is broke into two pieces:
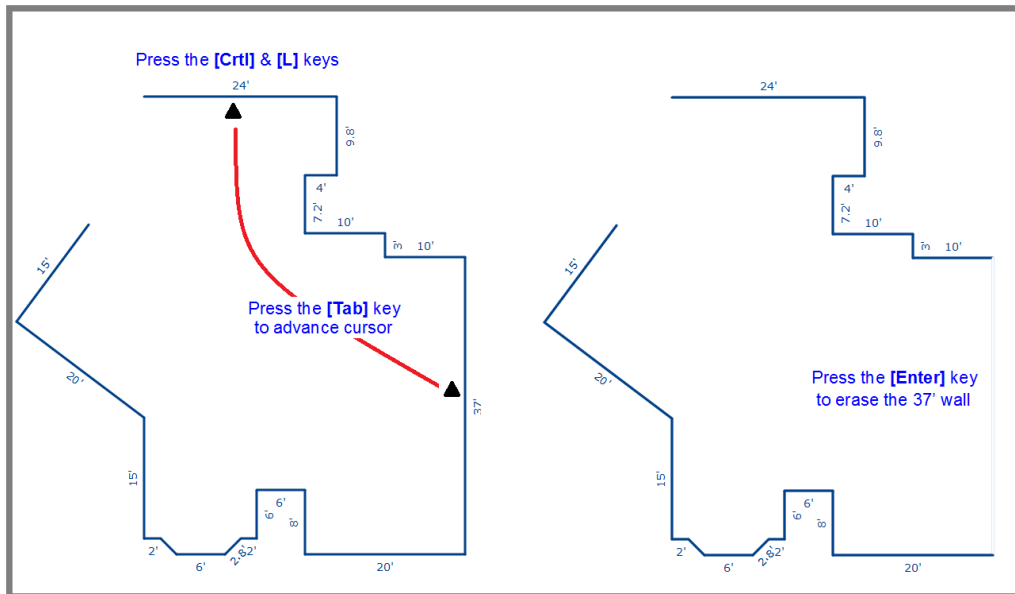
Type in the 35' dimension and press **[Enter]** again. The bottom half of the drawing will be adjusted up 2' and the black triangle pointer will jump to the next wall (20' wall). You can continue to press the **[Tab]** key to navigate to additional lines that you want to edit or immediately jump back to the 15' wall pressing the **[Escape]** key.
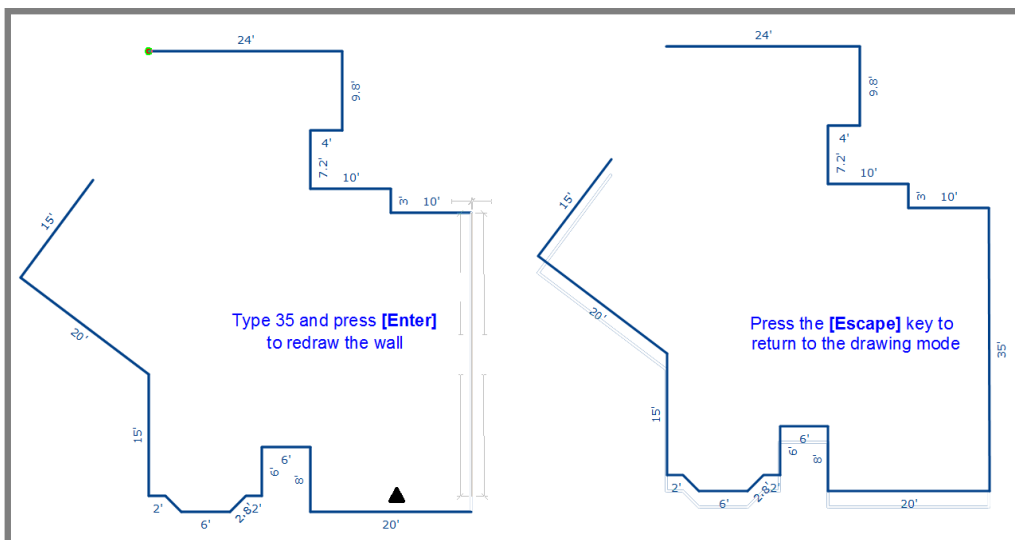
If the polygon is already closed, you can re-open the sketch on any line by selecting it with a **Left Click** with the mouse. **Right Click** to access the Reopen At feature.
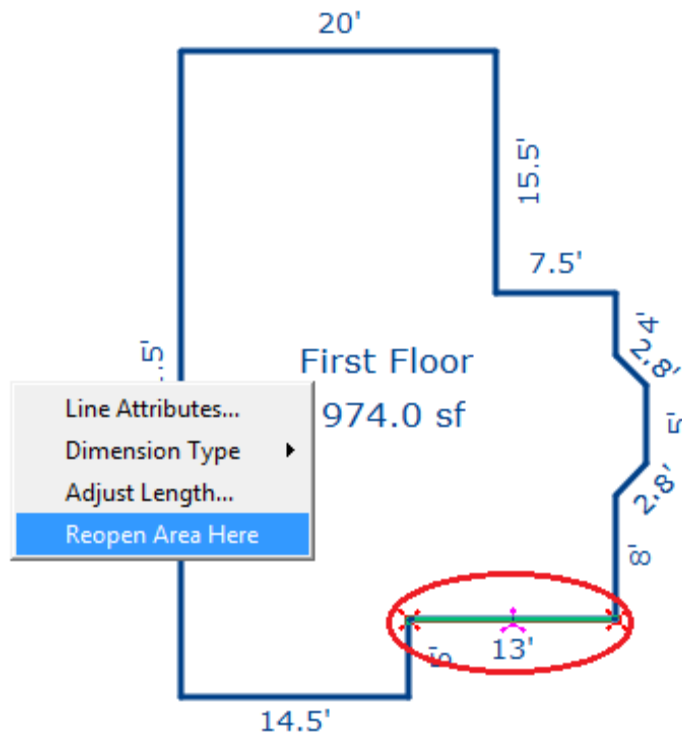
The selected line will be erased and you can draw in an additional shape or use the **[Delete]** & **[Insert]** tools or other editing options to make the desired changes to the polygon.

Swap Point of Beginning:

The Swap Point of Beginning feature allows you 'pick up the pencil" and continue drawing from the other side of the polygon. Users can swap drawing directions as often as they like. Press the **[Alt]** & **[P]** keys to swap the point of beginning.
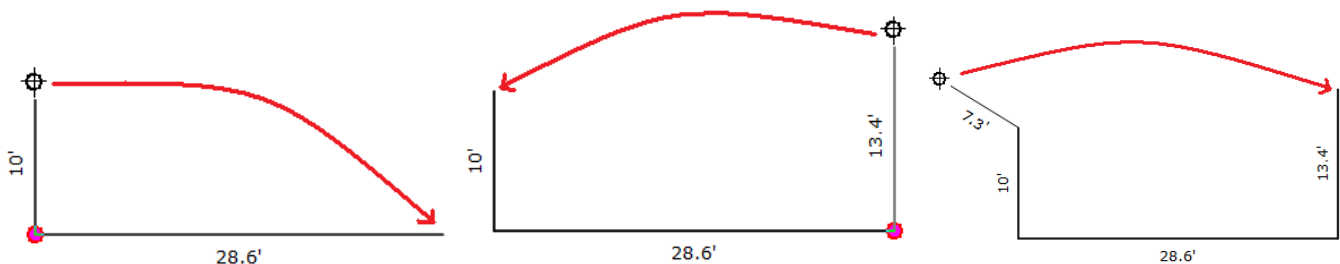
This feature can be used as part of the drawing procedure OR used in conjunction with the **[Delete]** & **[Insert]** line editing tools described on the primary tutorial.

Define Area-on-the-fly

Apex allows you to define the area polygons as you draw vs. having to complete each polygon before proceeding. Apex will automatically return the previous polygon once the new one is complete. It is feasible to actually define several additional polygons as you draw and then sequentially return to finish the previous areas as you complete the new ones.
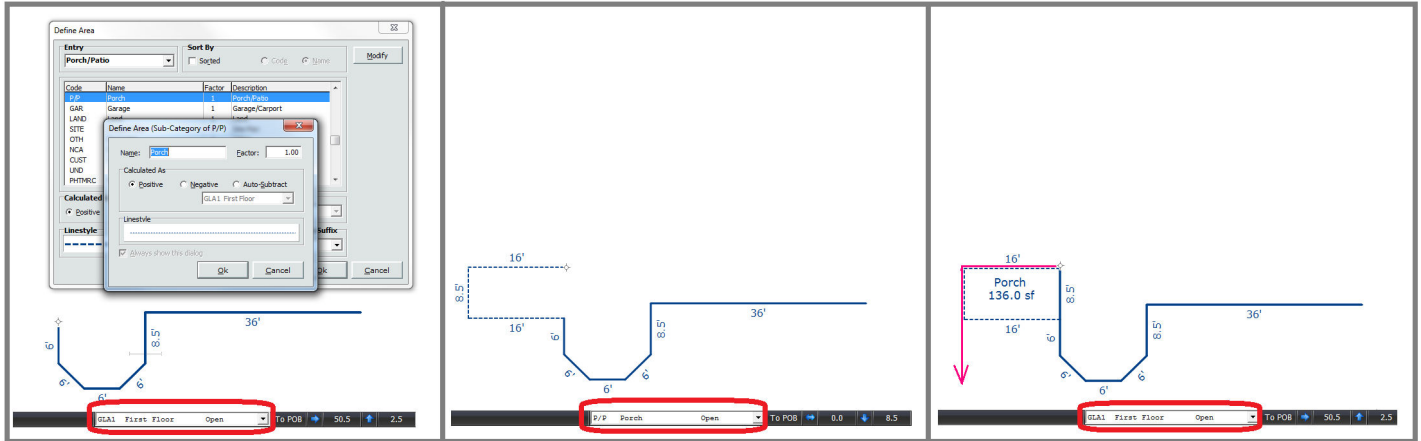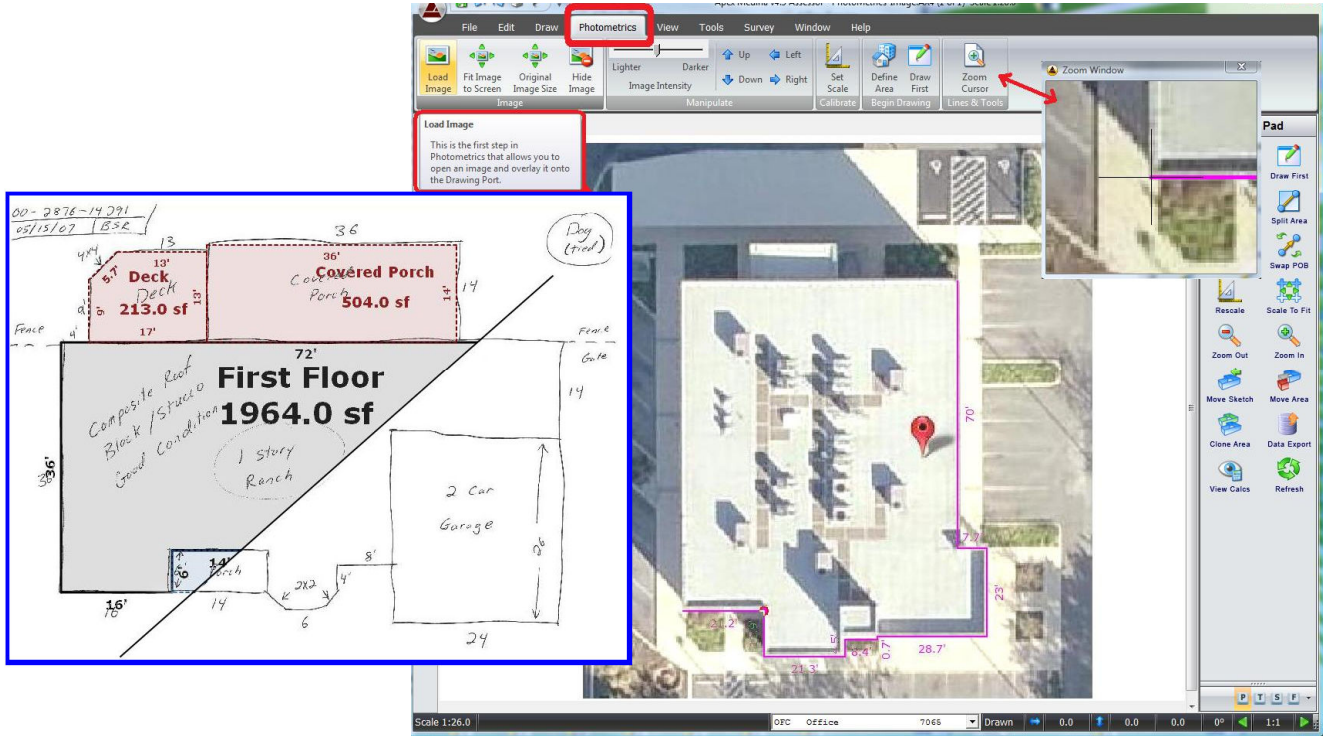

Sketch Example:
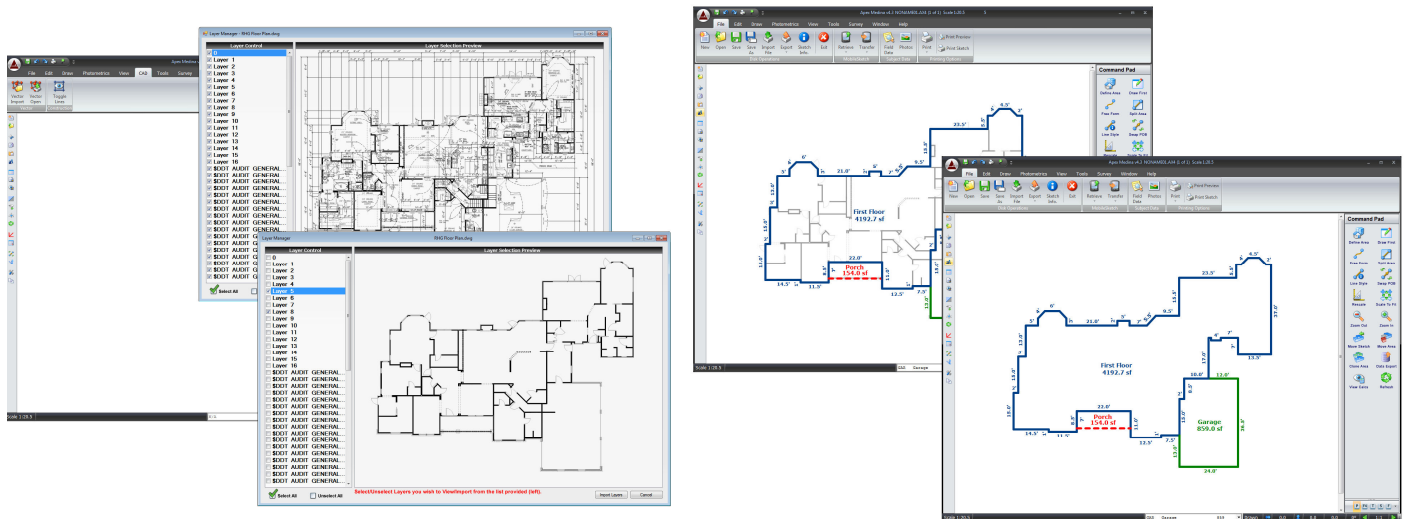
(Define Areas-on-the-fly)
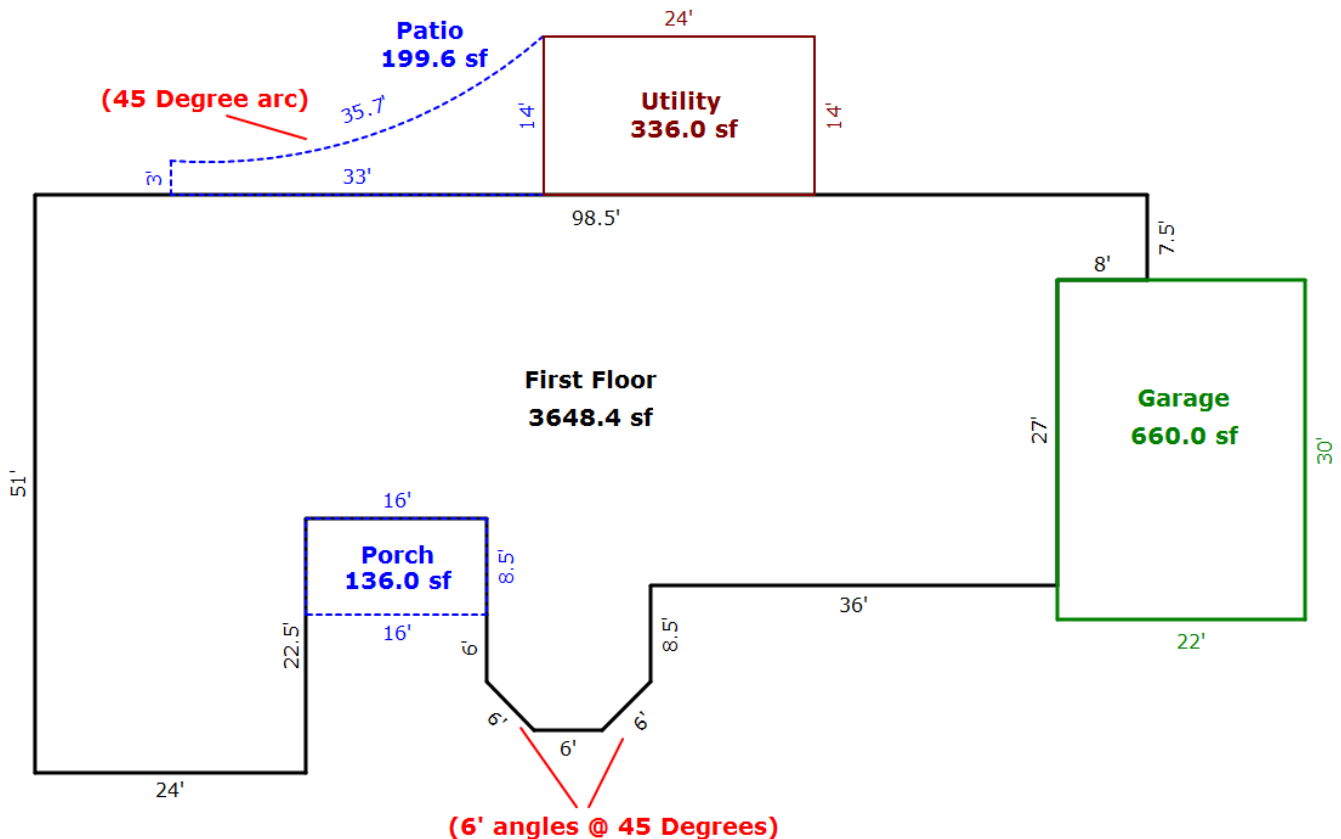
Photometrics Tool:

Photometrics allows users to basically import any type of JPG or BMP image to use as a template or reference to draw from – right on the screen. The image can be from a hand drawing, a blue print or site plan or even aerial imagery.

CAD Module

Apex CAD Module lets you open standard CAD files and turn off unwanted layers such as electrical or plumbing. The remaining walls can be imported directly into Apex along with their original scale information. Quickly trace over the desired sections to create the area polygons for valuation. Internal walls can be kept for added information or removed for simple sketch graphics.

End