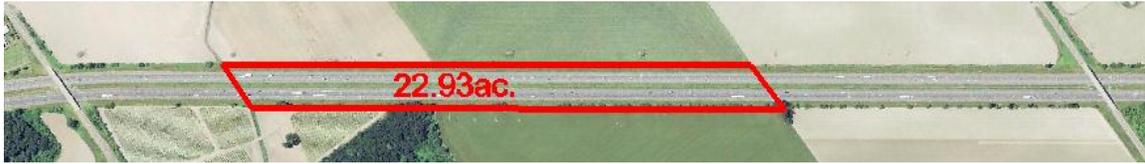


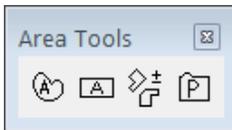
Measuring Acreage with the Area Tools



The Atool MDL utility is a toolbar that measures and labels areas in MicroStation. The measurements can be scaled so that areas are labeled in acres instead of square feet.

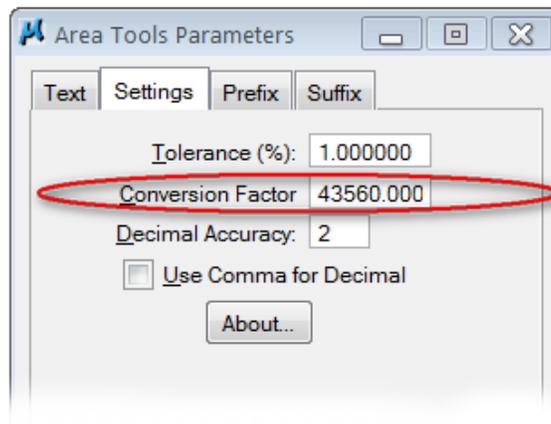
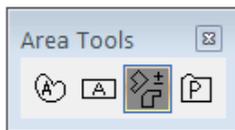
Loading the Tool

To load Atool, key in `mdl load atool` in the MicroStation command window. The four icon “Area Tools” toolbar will load. For your own convince you can assign this key-in to a function key `Workspace > Function Keys...` so you can quickly load it.



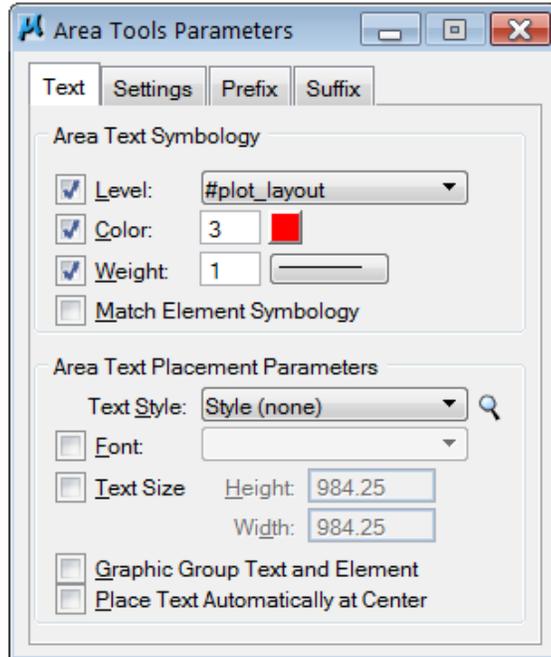
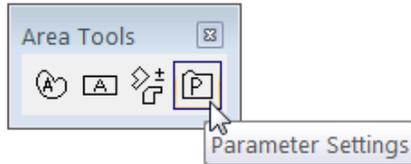
Setting the Acreage Scale Factor

To set the scale factor for measuring acreage when your units are in feet, select Parameter Settings which is the right most icon on the tool bar. Next select the Settings tab. Enter the constant 43560 into the Conversion Factor field.



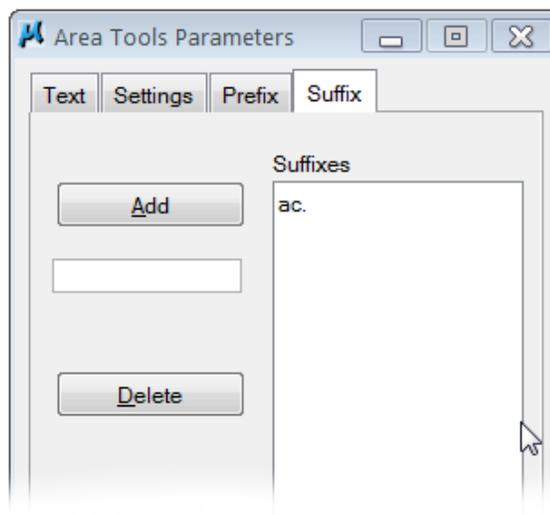
Setting Text Parameters

The Text parameters controls the area labels that are placed. There are text parameters for level, color, font, weight and text size that you would expect. When Match Element Symbology is checked the label symbology will be the same as the shape measured unless Level, Color, and Weight boxes are checked as well. Normally Atool will prompt the user to locate where the text label should be placed. If Place Text Automatically at Center is checked the text will be placed at the center of the area automatically.



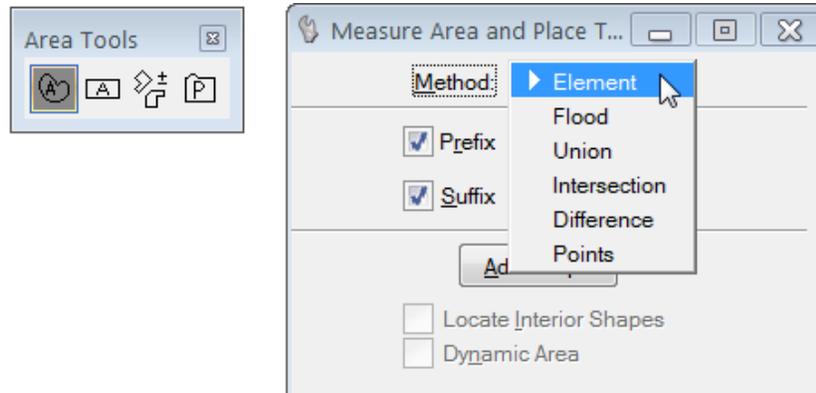
Defining Prefixes and Suffixes

The Prefix and Suffice parameter tabs allow multiple text prefixes and suffixes to be defined. To add a prefix or suffix, enter text in the left field and click add. In this example the suffice ac. is defined.



Simple Measuring

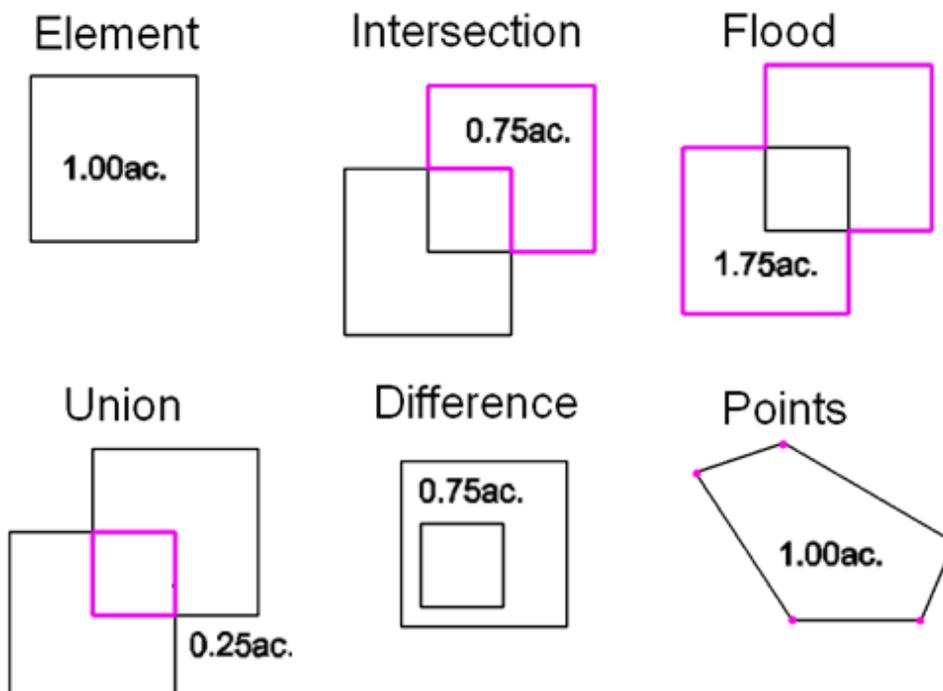
To measure elements click the left most icon. This will load the Measure Area and Place Text dialog. The simplest way to measure is to select the Element method. With this method you select the shape, accept area and label the area.



Advanced Measuring

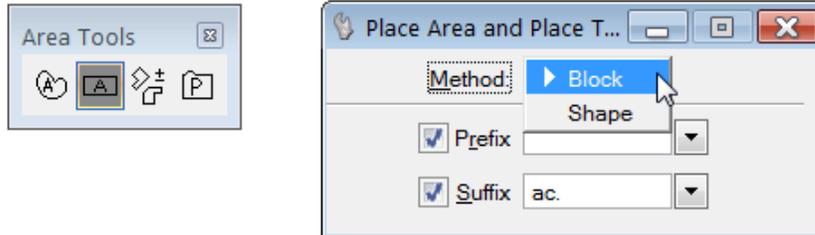
The different Methods for measuring elements with Measure Area and Place Text tool are as follows

- Element – Area of a single element
- Intersection –Overlapping area of two elements
- Flood – Area bounded by multiple lines
- Union – Combined area of two overlapping elements
- Difference – Area of one element subtracted from another
- Points – Area by selected points.



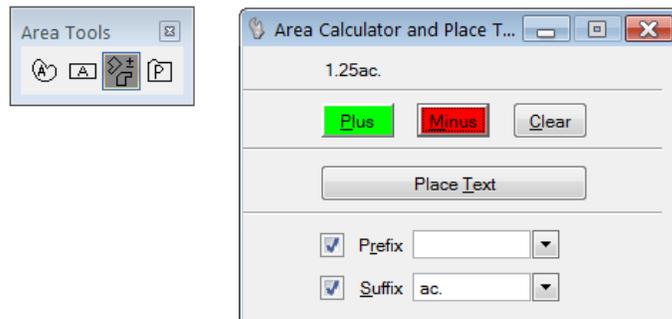
Place Area and Text

The Place Area and Place Text tool draws a shape or block and then labels the area. In addition it will display the area dynamically as the shape or block being drawn.



Area Calculator

The final tool is the Area Calculator. This tool is used to measure the area of elements, then add and subtract the area from a running total. The top section displays the running total. In the next section, the green Plus button is used to measure the area and add it to the running total. The red Minus button measures the area subtracts the area from the running total. The Clear button resets the total to zero. As elements are measured, they are highlighted in green or red to indicate that they have been added or subtracted to the total. The Place Text button labels the area with the current total.



Example Area Calculation
 $1.25ac. = 1.00 + 0.50 - 0.25$

