

## Bearing and Distance Tool

The NRCS-MI Bearing and Distance Tool can be used to describe the direction and distance between individual point features, along a line feature, or around a polygon feature.

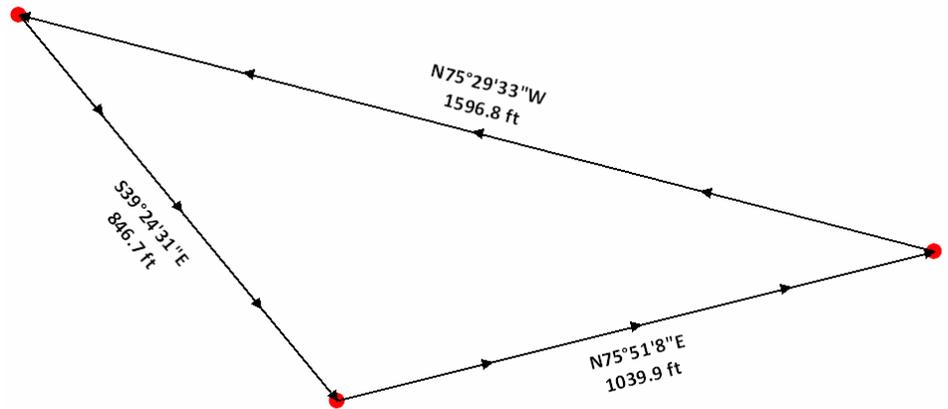
### How it Works

The tool examines the currently selected feature(s) and sequentially follows the order in which the features were digitized (points), or the order in which the feature's vertices were digitized (lines and polygons).

Bearing is expressed as an angle of rotation in degrees-minutes-seconds west (or east) of north (or south.)

Distance is always expressed in feet, regardless of map units.

If more than two point features are selected, the tool assumes that the points describe a polygonal area and will “close the loop” between the last point and the first point, as shown above.



Bearing and distance figures are added as graphic text in the “<Default>” ArcMap annotation group. If the input features are points, a graphic “arrow line” is added between points. If the input feature is a line or polygon, graphic “dots” are created at each vertex. (See examples)

### Where is it?

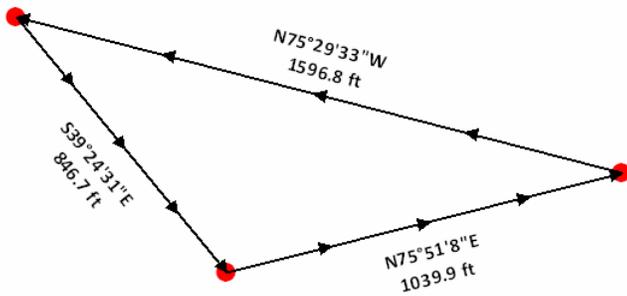
The Bearing and Distance Tool is located on the NRCS-MI Toolbar. The following rules apply in order for the tool to be active...

- Map units must be feet or meters  
AND
- At least one feature must be selected  
AND
- Multiple types of features (points, lines, polygons) must not be selected  
AND
- If using point features, more than one feature must be selected  
AND
- If using a line or a polygon feature, only one feature can be selected

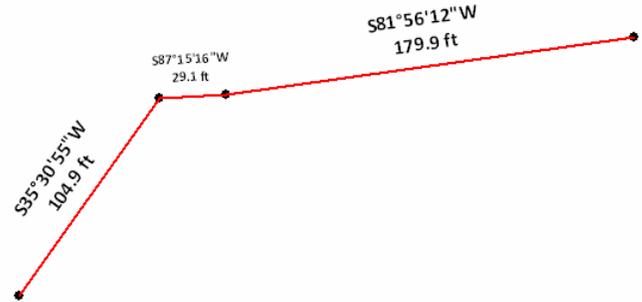


## Using the Bearing and Distance Tool

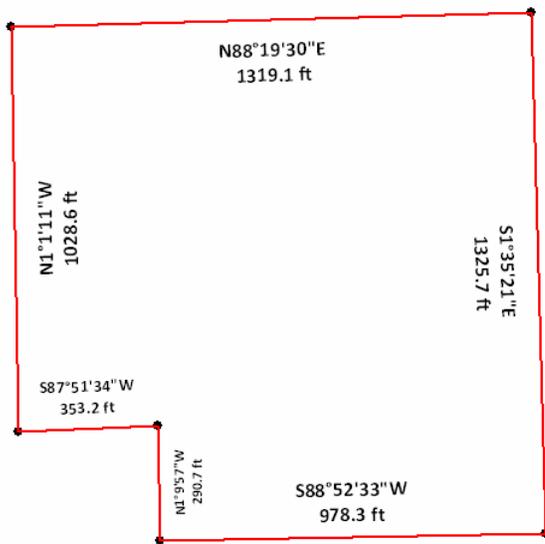
1. Use the ArcMap  **Select Features** tool to select the feature(s) for which you want to calculate the bearing and distance.
2. Click the  **Bearing and Distance** button on the NRCS-MI Toolbar. The results will appear similar to the examples below, depending on the type of feature selected.



Example 1 - Three point features as input



Example 2 - One line feature as input



Example 3 - One polygon feature as input

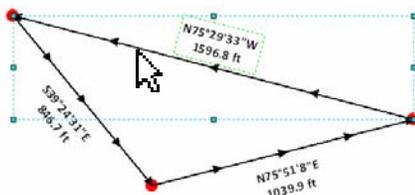
### Notes on Graphic Text: For information only

The font size of each text element varies in relation to the length of the feature segment described by that text element. (Example font sizes reduced to fit this page)

The text elements are not scaled; therefore they will remain the same size when zooming in or out. This is useful when the input points/vertices are very close together, resulting in overlapping text. Zoom in on the complex portion of the feature to view the results with greater clarity.

The text created using a polygon feature as input will always be placed within that polygon's boundaries. Conversely, text created using line or point features will be forced outside of the polygonal representation of the input feature(s).

3. You may use the ArcMap  **Select Elements** tool to move the graphic text if necessary.
4. You may also delete selected graphic elements with the  **Delete** button in the ArcMap Standard toolbar.



→ <Delete> →

Example 4 - Deleting unwanted graphics

