

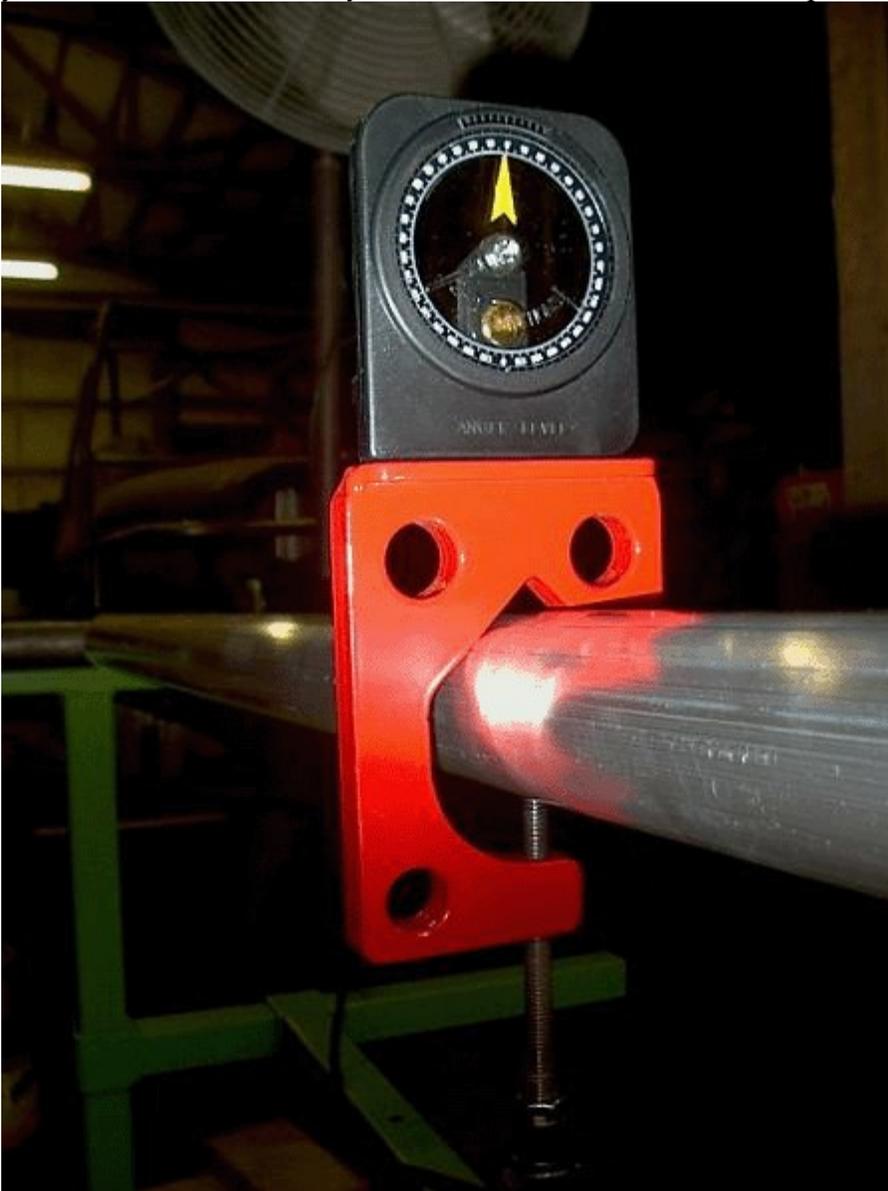
## Absolute Rotation

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Absolute rotation is a new option that allows you to change the way the rotations are displayed in the results window.

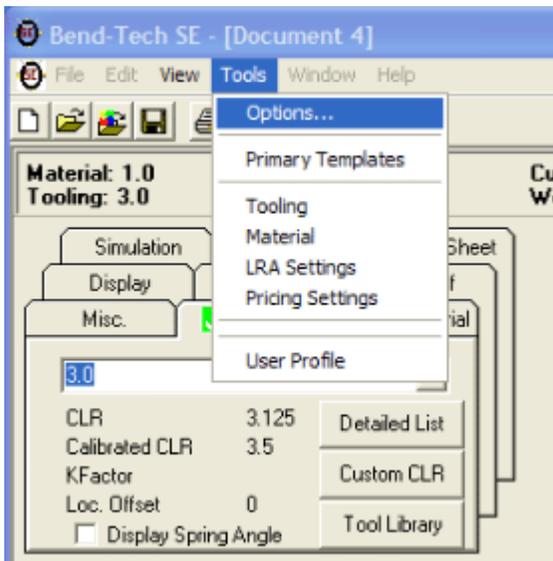
A	B	Location	Rotation	Angle	CLR
1	1	6 7/8	0	90	3.125
2	2	15 3/8	90	90	3.125
3	3	23 7/8	180	90	3.125

This is best put to use when employing a plane of bend (POB) bracket (as seen in the below image), which typically has an attached angle finder and clamps to a piece of tube to be bent. With this setup you can see the rotation of your tube as it relates to a reference plane.

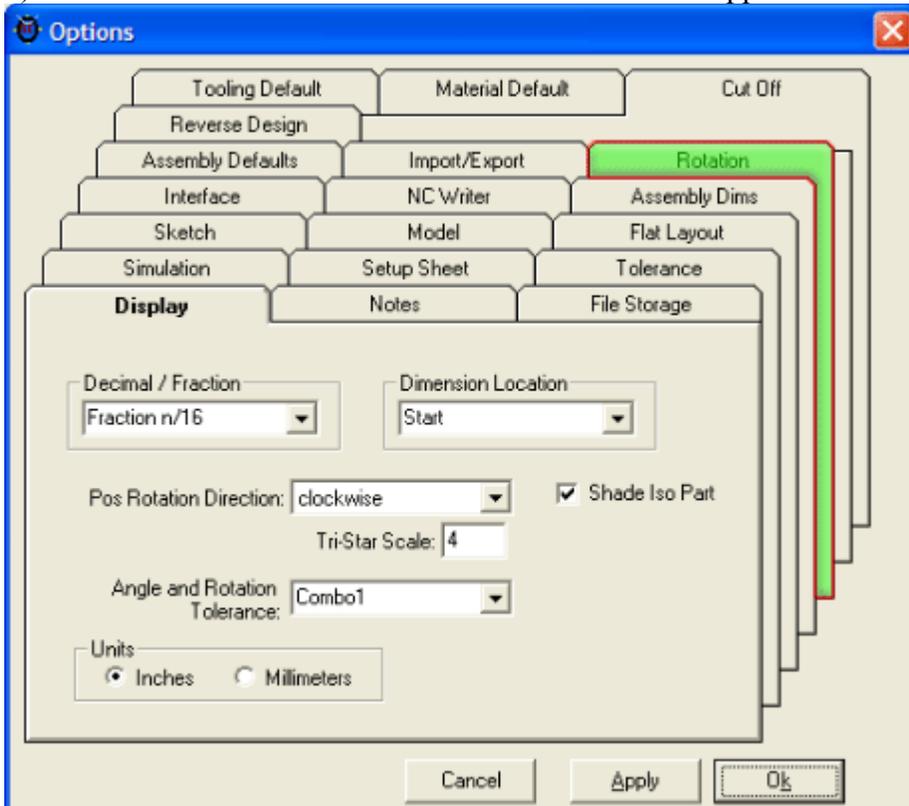


To find the rotation options:

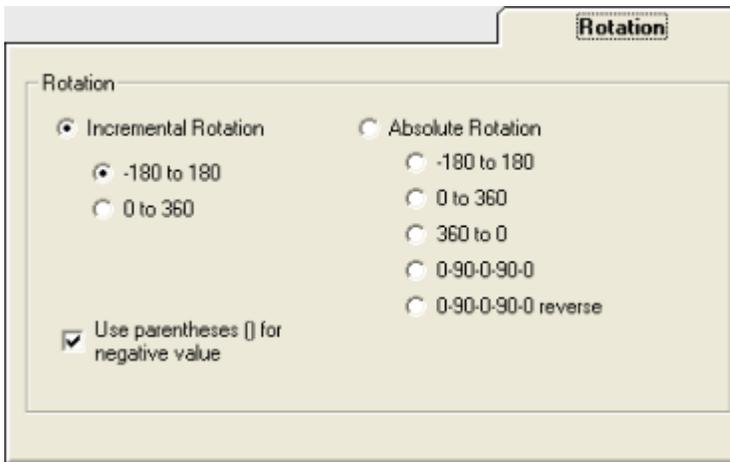
- 1) Select "**Options...**" from the "**Tools**" drop-down window.



2) Then select the "Rotation" tab from the window that appears.



The rotation tab looks like this.



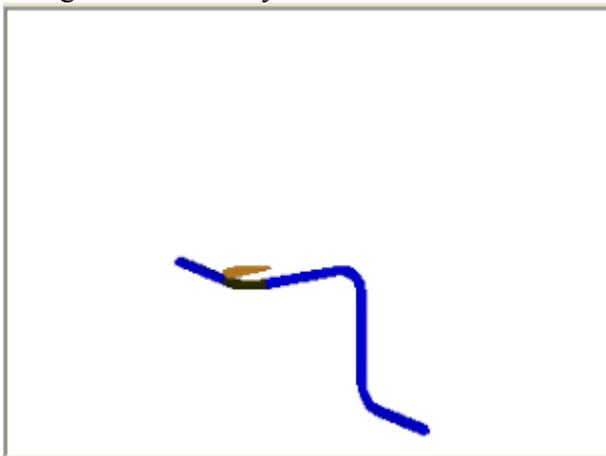
Say you have a part with 3 bends, with the second and third bends rotating 90 degrees each for a total (absolute) rotation of 180. Incremental rotation will refer to each rotation as 90 degrees (shaded area in the image below) because with incremental rotation, the rotation value is reset to 0 once each rotation takes place.

A	B	Location	Rotation	Angle	CLR
1	1	10	0	90	3.125
2	2	24 3/4	90	90	3.125
3	3	39 1/2	90	90	3.125

However, absolute rotation will show the first rotation as 90 degrees and the second as being 180 because it is based off of the initial reference plane.

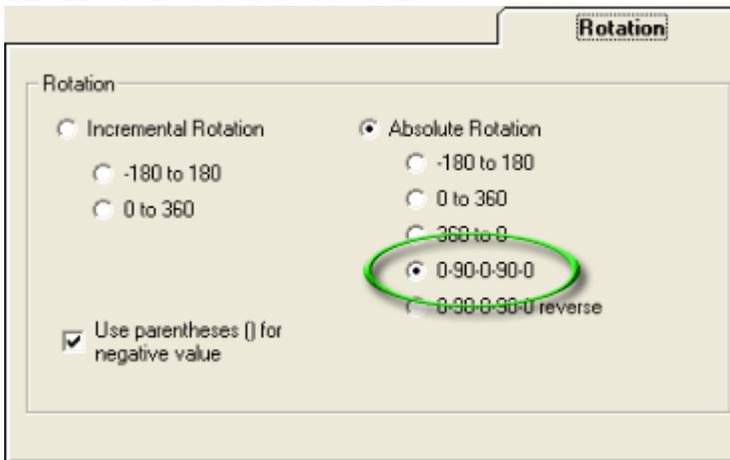
A	B	Location	Rotation	Angle	CLR
1	1	10	0	90	3.125
2	2	24 3/4	90	90	3.125
3	3	39 1/2	180	90	3.125

Both examples above produce the same part (simulation view shown below), the rotations are just thought of differently.



There are some angle finders that display only up to 90 degrees, divided into 4 quadrants. We have two display options for these angle finders. Both of which reference North, East, South, and West to describe directions.

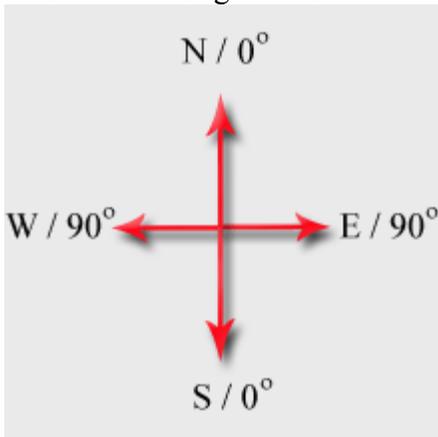
The first is listed on the rotation tab as "0-90-0-90-0":



Using the same part as above, it displays in the results window as:

A	B	Location	Rotation	Angle	CLR
1	1	10	0	90	3.125
2	2	24 3/4 E	90	90	3.125
3	3	39 1/2 S	0	90	3.125

And can be thought of as:



The second is identical to the first, but moves in the opposite direction. So, our same part will display in the results window like this:

A	B	Location	Rotation	Angle	CLR
1	1	10	0	90	3.125
2	2	24 3/4 W	90	90	3.125
3	3	39 1/2 S	0	90	3.125