ORMAP Taxlot Annotation Toolbar version 3.0

The ORMAP Taxlot Annotation Toolbar gives the user tools to create and manipulate Distance and Bearing annotation in compliance with the ORMAP standard.
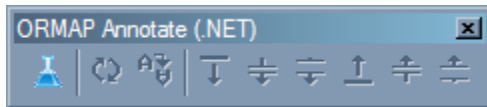
ORMAP Annotate Toolbar

General Description:

The Annotate toolbar provides a variety of tools which assist in the creation and placement of Distance and Bearing annotation. Distance and Bearing annotation are created and manipulated in pairs, with one piece defined as "Top". The Create Annotation tool is only available outside an edit session. All other tools require an edit session to be active.

IMPORTANT NOTE=> The "top" piece of annotation is the first piece selected in each pair, and all tool actions are relative to this piece.

Tools Available Outside Edit Session:

1. **Create Annotation**- builds non feature-linked Distance and Bearing (Direction) annotation from selected line feature attributes. It relies on the underlying ArcMap Convert-Labels-To-Annotation engine. Annotation can be created for lines within different MapIndex locations simultaneously, and will be placed in the appropriate scale Annotation feature class. Annotation on lines coinciding with the MapIndex boundary will be determined using the "fuzzy logic" intersect utilized by the ORMAP Taxlot Editing tool

Tools Available Within Edit Session:

2. **Flip Annotation**- Move the top annotation to the bottom and the bottom annotation to the top.

3. **Rotate Annotation**- Flips each piece of annotation, then rotates them 180° around the centroid.

4. **Move Down**- Moves an annotation pair "down". If the annotation pair is on both sides of a line, spacing will be adjusted appropriately to both below the line.

5. **Move Down/Insert Standard Space**- Moves an annotation pair "down", but inserts standard spacing to place annotation on both sides of a standard width line.

6. **Move Down/Insert Wide Space**- Moves an annotation pair "down", but inserts wide spacing to place annotation on both sides of a wide line (Taxcode boundary, MapIndex boundary, etc.).

7. **Move Up**- Moves an annotation pair "up". If the annotation pair is on both sides of a line, spacing will be adjusted appropriately to both above the line.

8. **Move Up/Insert Standard Space**- Moves an annotation pair "up", but inserts standard spacing to place annotation on both sides of a standard width line.

9. **Move Up/Insert Wide Space**- Moves an annotation pair "up", but inserts wide spacing to place annotation on both sides of a wide line (Taxcode boundary, MapIndex boundary, etc.).
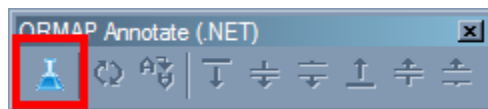
Prerequisites (Create Annotation):

- Cannot be in an edit session.

- Cannot have annotation classes named (or with names that contain) "Direction" or "Distance".

- Must have the MapIndex feature class loaded into the active data frame of the current map document.

- Must have ORMAP standard scale-based Annotation feature classes with the following components defined:

    o Subtype AnnotationClassID called "34" must be defined. This is the ORMAP standard for Distance and Bearing annotation.

    o An Annotation Class called "34" must be defined.

    o A symbol for Annotation Class "34" must be defined.

    o A reference scale. The tool defaults to 1:1,200 (the ORMAP standard), but this can be changed by the user (must be changed each time the tool is run). NOTE=> Using a different reference scale may have unintended consequences. It is recommended that the 1:1,200 default value should be used.

- Scale-based Annotation feature classes must exist for all scales represented in your MapIndex feature class.

- Must have selected line segment(s) around which to place Distance and Direction annotation.

    o A maximum of 999 line features can be selected at one time. The system will issue a warning if it detects more.

- Source line feature classes must have Distance and Direction attributes.

    o The Direction attribute must follow ESRI's Traverse Direction Unit DMS (Degrees / Minutes / Seconds) format (e.g., N87-33-12E) which will be converted to display with correct symbology (E.g., N 87° 33' 12' E).

- Auto Update should be set as desired. An edit session must first be initiated, the Auto Update set, and the edit session terminated. If Auto Update is turned off, no map number will be assigned.

- For data in SDE, the user must have ownership of annotation feature classes (converter locks schema).

- **WARNING**=> Due to the internal operation of the ConvertLabelsToAnnotation converter class used by this tool, **all** of these prerequisites must be met. Failure to do so can result in corruption of any Annotation feature class the tool tries to update. The tool will attempt to remove corrupted data, but in some cases the Annotation feature class cannot be repaired.

Prerequisites (Placement Tools):

- Annotation must have been created with the Create Annotation tool, or must in some other way have been placed exactly where the Create Annotation tool would have placed them. Tolerances are ± 1/100th of a foot.

- Must be in an edit session.

- Must have the MapIndex feature class loaded into the active data frame of the current map document.

- Auto update should be set as desired. Note that in moving annotation, ORMAP Taxlot Editor retains the map number, even if annotation is moved across Map Index boundaries.

- Annotation must be selected in pairs (Distance and Direction).

  - The relative location of each annotation pair is solely dependent on whether it is selected first or second ("top" or "bottom"). All movement "up" or "down" is relative to the first, or "top", piece of annotation and oriented away from the line.
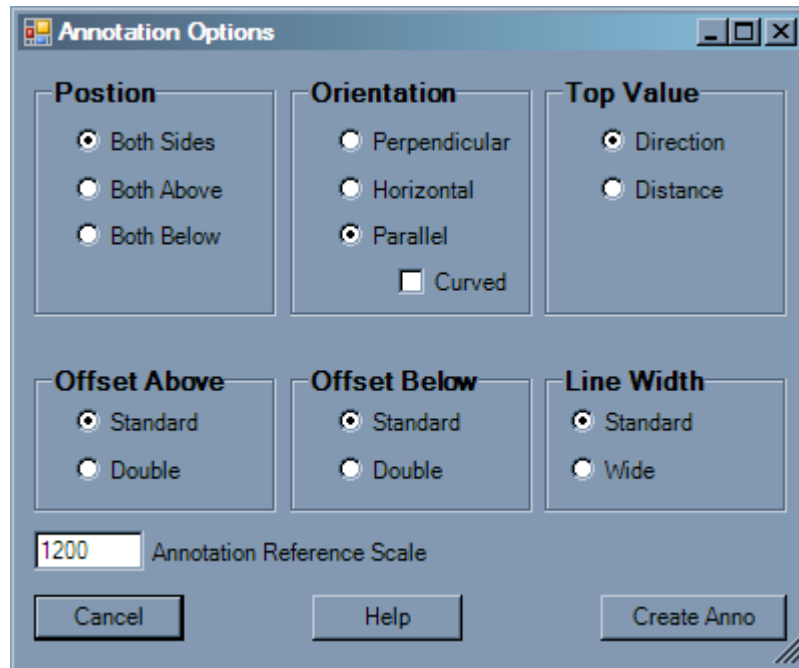
How to Use:

1. Create Annotation:

- Uses Label-To-Annotation conversion engine to create new annotation. Because of this, some errors inherent in the conversion engine cannot be trapped and handled correctly.

  - When receiving an error that warns of system instability, it is always important to exit ArcMap and restart it.

  - After exiting ArcMap, check the annotation feature classes in ArcCatalog (right-click the annotation feature class and click "Properties") and verify that no "Distance" or "Direction" annotation classes or symbols are present. If they are, delete them. Note that you must delete any annotation referencing this annotation class first. You must delete the annotation class first, then click "Apply", then delete out the symbols.

- Outside of an edit session, use Select Tool to select line(s) which will be the source of the Direction and Distance annotation. The annotation created will be placed relative to the selected line(s) although not feature-linked.

  - Selected lines can belong to different feature classes, and can be in different map indexes. The tool will store the annotation in the correct annotation feature class based on that map index (as defined through the ORMAP settings).

- o You cannot select more than a combined total of 999 line features from all line feature classes. This causes an internal error in ArcMap, and the Annotation Creation tool will prevent this by asking you to remove some lines from your selection set.

- Various options for annotation placement can be selected. Note that annotation is placed relative to the source line feature from which it is created, but no relationship exists after that. Annotation exists in space relative to its "top" and "bottom" components and the intervening space between.

- **Position**-
    - o *Both Sides*: One piece of annotation will be placed above the line, the other below it, appropriately located in map distances for the annotation scale
    - o *Both Above:* Both pieces of annotation are placed above the line, appropriately located in map distances for the annotation scale.
    - o *Both Below:* Both pieces of annotation are place below the line, appropriately located in map distances for the annotation scale.

- **Orientation**-
    - o *Horizontal*: Annotation will be placed horizontally, regardless of line direction.
    - o *Perpendicular*: Annotation will be place perpendicular to lines.
    - o *Parallel*: Annotation will be placed parallel to the source line features (This is the default).

- *Curved*: Annotation will follow lines. Can only be checked if *Parallel* is selected. NOTE=> Only enabled for *Parallel* Orientation.

- The tool was created mainly to support parallel, non-curved annotation. The placement tools may not work correctly if you select other options.

- **Top Value**- Either Direction or Distance can be placed as the "top" value.

- **Offset Above**- Allows adjusting space for the upper annotation piece.
  - **NOTE=>** ORMAP Annotation placement tools will not work on annotation created with these offsets.

- **Offset Below**- Allows adjusting space for the lower annotation piece.
  - **NOTE=>** ORMAP Annotation placement tools will not work on annotation created with these offsets.

- **Line Width**-
  - *Standard*: Assumes a line offset of one foot.
  - *Wide*: Assumes a line offset of 60 feet.

- **Annotation Reference Scale**: Defaults to 1:1,200. Can be set by user, but must agree with reference scale set for annotation for correct placement. It is recommended that the default reference scale be used as it may impact proper operation of the placement tools.

2. Flip Annotation:

- Reverses the location of the "top" and "bottom" pieces of annotation.
  - Note that once flipped, the piece of annotation now on the "bottom" is still recognized by the system as the "top" piece because it was the first piece of annotation selected.

3. Rotate Annotation:

- Reverses the location of the "top" and "bottom" pieces of annotation and then rotates each 180° around its centroid so that is now "upside down".
  - Note that once flipped, the piece of annotation now on the "bottom" is still recognized by the system as the "top" piece because it was the first piece of annotation selected.

4. Move Annotation Down / Up:

- Moves annotation pair "up" or "down", maintaining correct spacing. If the annotation pair is on both sides of the line, it will be moved "up" or "down" to the same location as if it had been created with the Create Annotation tool's "Both Above" or "Both Below" Position setting.

5. Move Annotation Down / Up & Insert Standard Space:

- Moves annotation pair "up" or "down", but inserts spacing equivalent to a standard line. If the annotation pair is on either side of the line, it will be moved "up" or "down" to the same location as if it had been created with the Create Annotation tool's "Both Sides" Position setting and Line Width set to "Standard".

6. Move Annotation Down / Up & Insert Wide Space:

- Moves annotation pair "up" or "down", but inserts spacing equivalent to a wide line. If the annotation pair is on same side of the line, it will be moved "up" or "down" to the same location as if it had been created with the Create Annotation tool's "Both Sides" Position setting and Line Width set to "Wide".

Notes:

Reporting Bugs and Requesting New Features:

For instructions on how to report a bug or request a new feature, go the bottom of the help form or to Editor ► Options ► ORMAP Taxlot Editor and click Report Bug or Request New Feature.