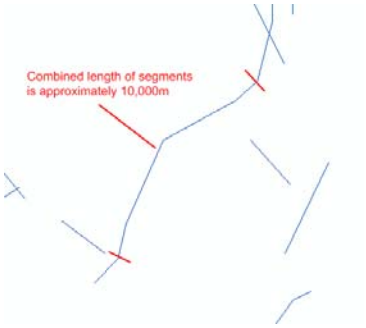
Characterize Polylines Example

This example uses the GBFaults3 data from the Carlin data provided with SDM. This dataset has been simplified so it is not the best example for the use of this tool.

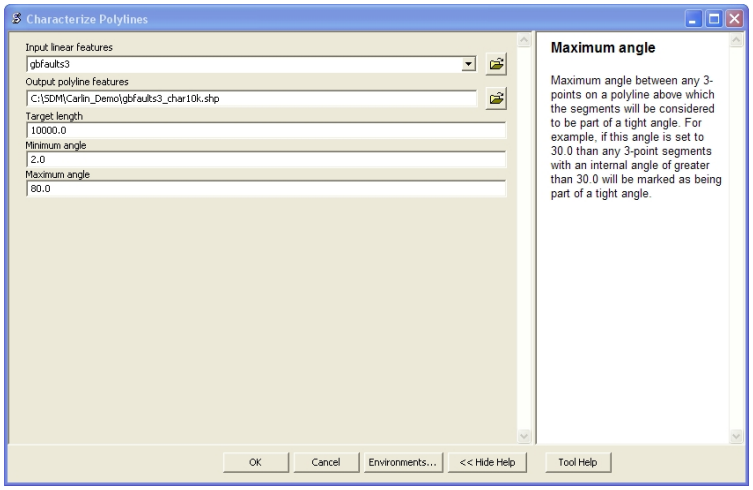
1. Identify a Target Length

Examine map to identify the length (combined across segments of a polyline) that defines a target characteristic. In this example the "bend" occurs over a distance of approximately 10,000m. The length is just measured quickly with the ruler tool.



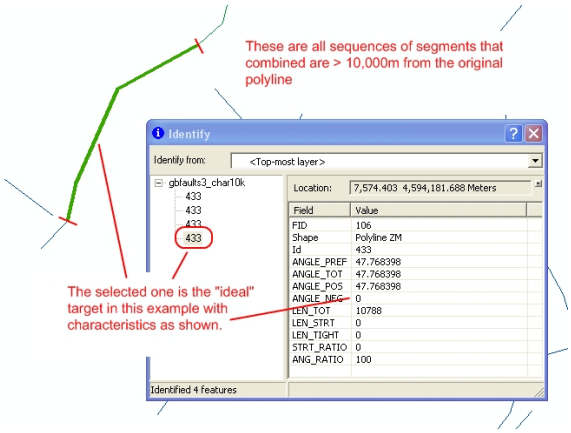
2. Characterize Polylines

Run the characterize polylines tool targeting the selected length. In this example I am not concerned about "tight" angles between segments so the maximum angle is set to 80 degrees. Note that for purposes of the "total bend" across a sequence of segments if the angle between a segment is < the minimum or > the maximum angle specified, it will not be included in the total, but will show up as part of the "straight" or "tight" segments respectively.



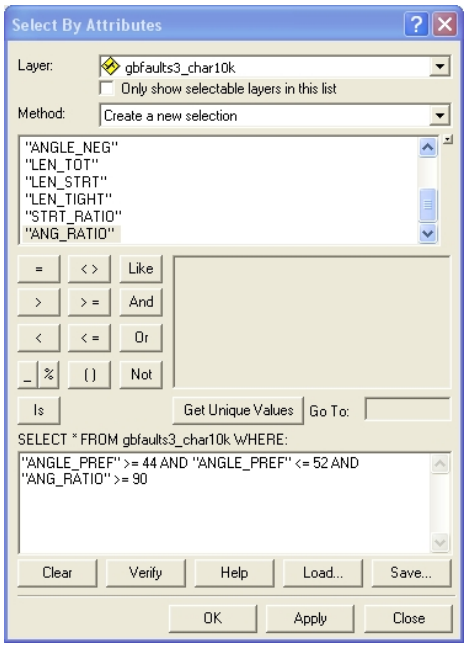
3. Examine Target Feature

Use the Identify tool to select the target sequence of segments that best covers the feature of interest. Note that as a target "feature" might occur anywhere along the polylines, you will often get multiple overlapping targets for a single original polyline. In the example below, the one selected has a total "bend" of approximately 48 degrees, and an ANG_RATIO of 100 indicating that the bend if completely in one direction. The ANG_RATIO is a ratio of the dominant bend direction to the bend range from negative to positive. As ANG_RATIO approaches 100 the bend is in one direction only, as it approaches 50 the line "zig-zags" back and forth.



4. Select Targets

Use the Select by Attributes tool to select features that closely match the target. In this example, there is a 4 degree window either side of the target, and a little bit of room to zig-zag back and forth (i.e. ANG_RATIO >= 90).



5. Targets

The example below shows the minimal features across the gbfaults example dataset that most closely match the target.