Create Perpendicular Lines at the Midpoint of a Line, takes a line feature class and generates perpendicular lines to each record. The new perpendicular lines intersect the original records at the mid-point of each line segment and is perpendicular to an imaginary line that extends from the start node to the end node of each feature.

The graphic below shows different lines generated from different line shapes. Multi-part line features can return odd results depending on the position of the start and end vertices in relation to the mid-point of the line.

This tool relies on feature geometry and trigonometric calculations and coordinate system (Cartesian to polar) conversions and the input data must be in a projected coordinate system. This tool is subject to error from data projections. A projection that minimizes distortion of direction will reduce error in the final output lines.

The output feature class is in the same projection, coordinate system, and datum as the input data.