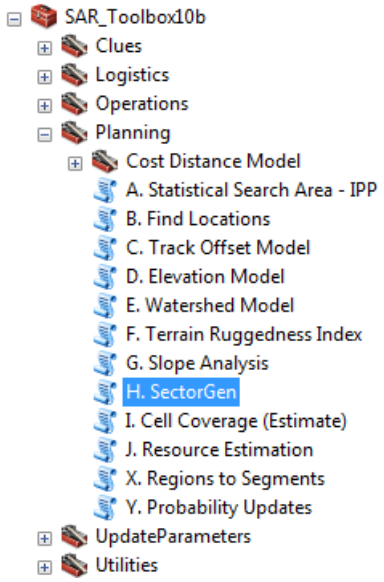
Sector Generation

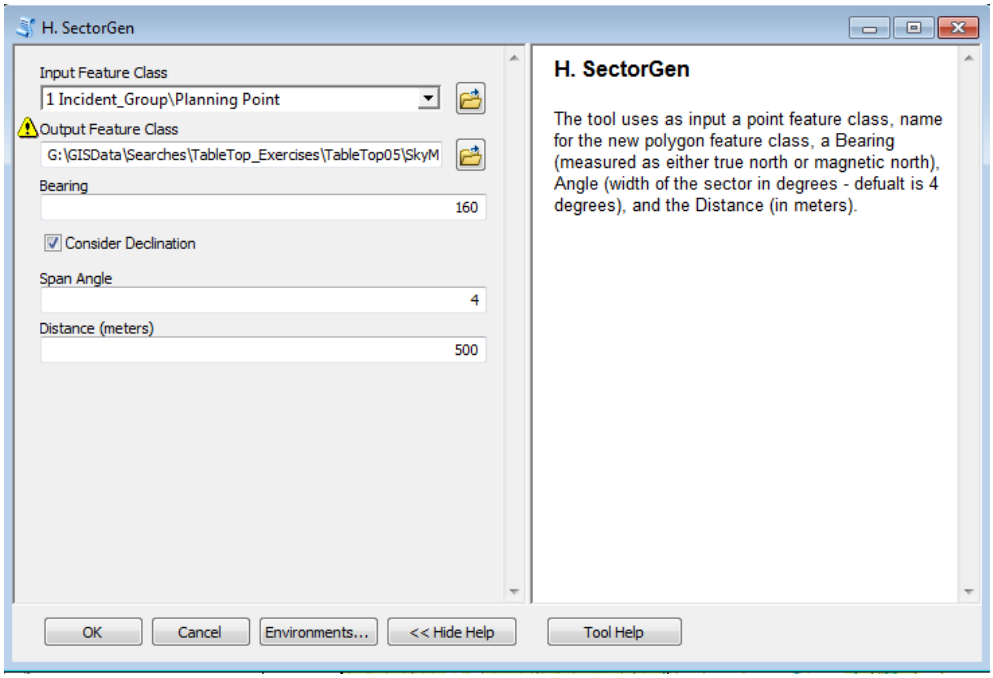
This tool will create a sector from a desired location (point feature) at the specified bearing (true or magnetic) for a desired distance and span angle.



From the SAR_Toolbox10b the user will select "Planning – H.SectorGen" to run the desired script. The user will be asked to provide the originating feature point, the desired output name, bearing, use declination, span angle and distance in meters.

The Input Feature Class is the location for the origin of the projected sector. This may be a location where a compass bearing was recorded or a pre-defined location. If the selected Feature Class contains multiple points, with no single feature collected the toll will be run on all points – producing the same sector. If only a single point is desired, the user should select that point perform executing the tool.

The output feature class is the desired location to store the output from this tool. It will be a polygon feature. Currently a new feature class (or shapefile) is created for each point. In the future, the user will be given the option to append an existing feature class or create a new one.



The Bearing is the desired direction for the projected sector. The bearing could be provided in reference to true north or magnetic north. If Magnetic North is used (for example – an uncorrected compass

bearing) , the user should select the checkbox for considering declination. If the bearing has already been corrected for magnetic north, then the true north value should be provided and the Consider Declination set to false (unchecked).

If the provided bearing was given as a magnetic bearing (uncorrected) then the user should set the "Consider Declination" to true (checked). The script will calculate the magnetic declination of the point feature.

Span angle defines the arc of the projected sector. The default value is assumed to be 4 degrees. This would equate to a potential uncertainty in a reported compass bearing or could be the span angle for a cellular antenna (although if cellular coverage is desired the "Cell Coverage" tool should be used.

The specified distance defines how long the projected sector is in meters.

The figure below displays an example of the tool run with and without declination for a bearing of 160 degrees, a span angle equal to four degrees and a distance of 500 meters. The calculated declination for this location is 10.25 W: