Computation of MODIS Tile Geometry



The computation of a MODIS tile geometry follows the following steps:

- 1. Map the tile to an equivalent tile in the upper-right quadrant(UR).
- 2. Find if the tile is a fictional tile or a real tile or a degenerate tile. Ignore fictional and degenerate tiles. Degenerate tiles have only one vertex which is a real point. All remaining points of the tile are fictional points
- 3. Find the coordinates of the four vertices of the rectangle corresponding to the tile.
- 4. Densify each of the four segments of the tile.
- 5. Remove fictional points on each of the edges if there are any.
- 6. Add the edge-points if the edge has fictional points on one side and real points on another.
- 7. Map the densified points back to its original quadrant.
- 8. Convert the points from planar coordinates back to geodetic coordinates. Convert from radians to degrees.