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Geographic Tagging Tool

Documentation

October 7th, 2019

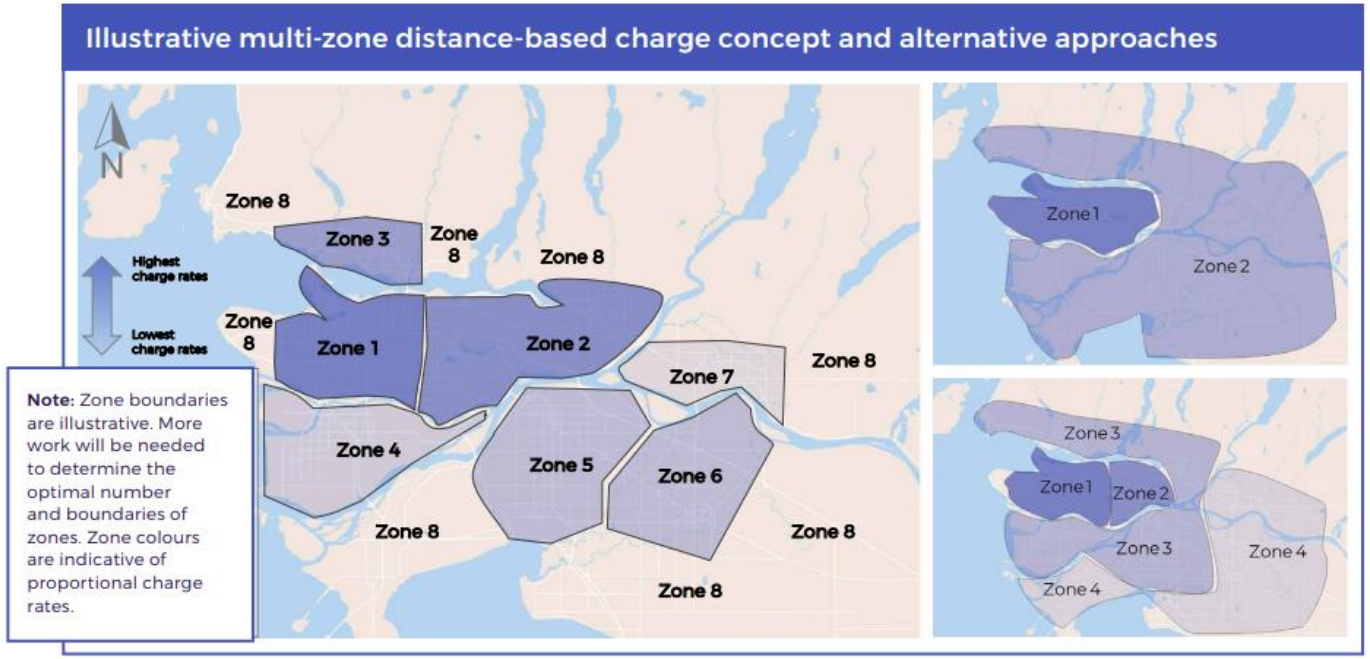
CANADA'S BEST MANAGED COMPANIES

Purpose

- Add a link attribute with value for network links based on a shapefile. Can be used to define areas for a variety of purposes

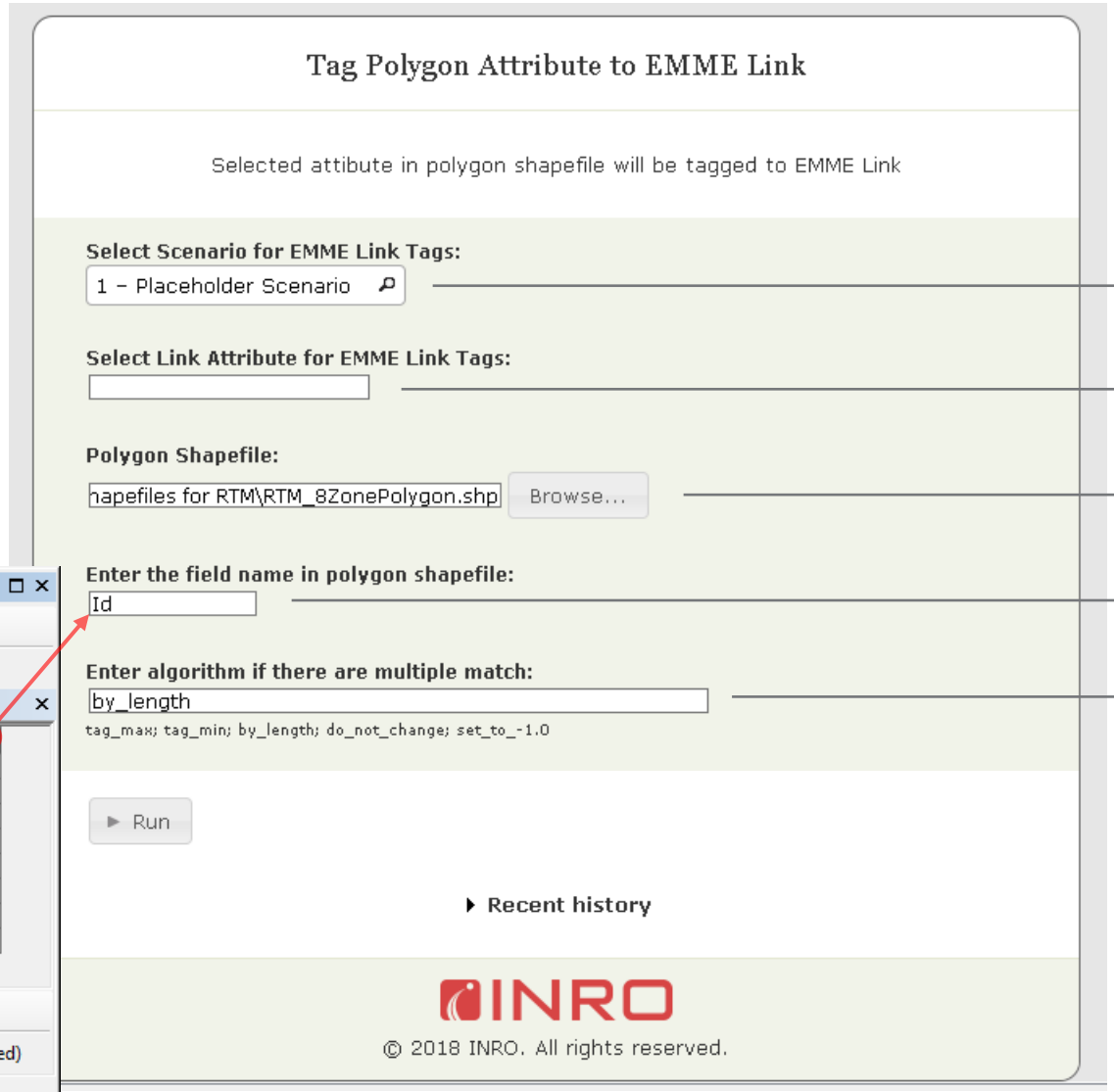
Example

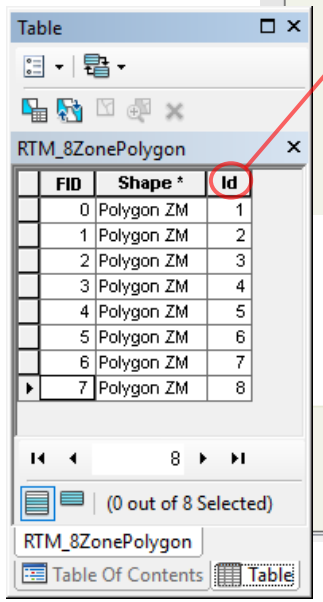
- Mobility Pricing Independent Commission requested modelling work to evaluate the impact of multi-zone distance-based charges.
- The zone number is assigned the link attribute to reflect different charge rates.
- The link attribute needs to be updated for every network edits; this is a lot of work.
- A GIS-based tool was developed to perform the zone id look-ups from polygon shapefile.



MPIC: Metro Vancouver Mobility Pricing Study Report, Page 41

Link Tagging Tool

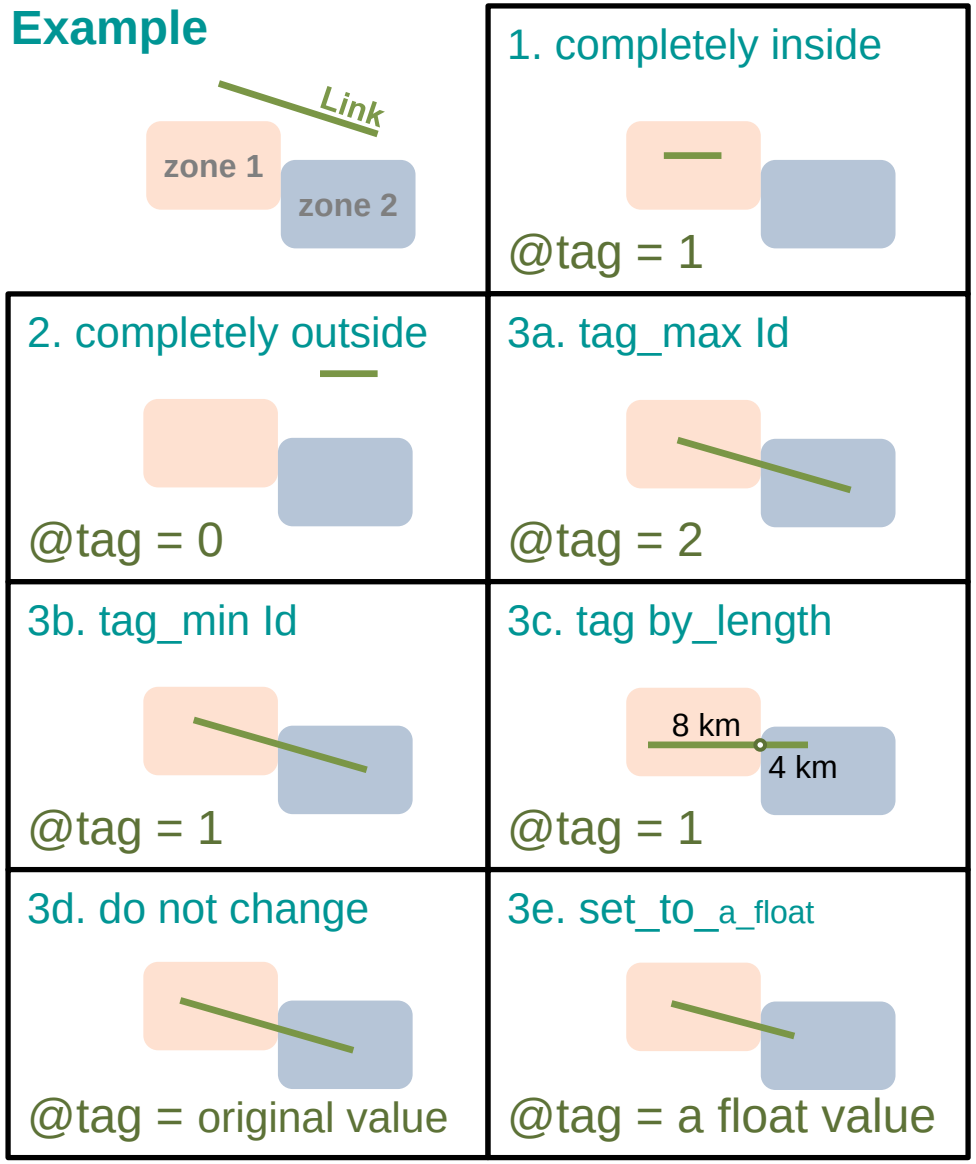




- pick scenario from drop-down list
- enter link attribute
  example: @tag
- select shapefile
  projection should be WSG 84 / UTM zone 10N Vancouver Special
- enter the attribute name in the shapefile
- select algorithm for link tagging
  see next page

Algorithms

1. If EMME link is completely within a polygon object, polygon shapefile “Id” is set to selected extra attribute “@tag”
2. If EMME link is completely outside all polygon objects, default value 0 is recorded
3. If EMME link is partially within one or more polygons, pick an algorithm:
   a. tag_max: tag the maximum value from all matches
   b. tag_min: tag the minimum value from all matches
   c. by_length: tag the polygon attribute with longest section of EMME Link in it
   d. do_not_change: do not change the extra attribute value
   e. set_to_-1.0: set the extra attribute value to -1.0, this could be any float value



Sample Outputs