Process for creating CPL Stats Combined at Multi-Location Intersections.

Matthew Nicoll, 2023-03-14, updated 2026-11-03

This was done every 3 years by Chuck Hutchinson, in 2015, 2018…
After the 2018 process, VB code developed for the job (by Matthew Nicoll) was moved into CISutil. The process is now done by Emmanuel Takyi.

(Simplified file names and CIS collision subset names are highlighted.)

1. Run a **CIS** Query selecting the required years of data, creating SubsetA.

2. Run **CIS** CPL on SubsetA, using simple criteria (#clsns >=1) creating IN and NOT IN CPL output subsets Subset_Intersections and (for other purposes) Subset_Segments

3. Use the Rate Table program to determine Average Collision Rates from Subset_Intersections.

4. Manually code the average collision rates into file ACR.csv

5. Run **CIS** CPL on Subset_Intersections, providing ACR.csv, and the desired detailed criteria, creating CSV output file CPL.csv. (Using input SubsetA would work just as well.)

6. Run **CISutil** (versn 4.4.0 or later) SDF tab function "**CPL to SDF, Grouped at Intersections**", with: input file CPL.csv. the "Nodes Once" option checked, and the same LKI version as in CIS, to produce Section Definition File SDF_CPL.csv. which has additional sections defined so that locations which have multiple LKI location codes (e.g. at intersections on divided highways) have a section defined for each of the LKI location codes.
   Note:
   - the "Nodes Once" option limits to one section per node,
   - a "section" in this SDF is actually just a single LKI location,
   - the GroupID in the SDF is the Intersection_ID for locations at intersections which are defined in the LKI Intersection table.
   - the GroupIDs of other locations are negative numbers.
   - the GroupID will be the same for all section definitions which are at the same location.
   - *(This runs CISutil module CPL_utils Sub CPL_to_SDF_Grouped)*

7. In **CIS**, run SSA with input subset Subset_Intersections,
   and input Section Definition File SDF_CPL.csv
   producing output file SSA.csv

8. In Excel, sort SSA.csv by GroupID, and save to file SSA_sorted.csv
   (because the following step requires all the records of each group to be together.)

9. In **CISutil**, run SSA tab function "**Combine Intersection Locations**",
   with input file SSA_sorted.csv,
   producing output file SSA_Combined.csv
   which has a set of SSA fields modified for Chuck Hutchinson's requirements.

10. In CISutil, run SSA tab function "**Create KML from CPL or Combined Int. Locns**"
    with input file SSA_Combined.csv
    and the LKI version as in CIS,
    producing file SSA_Combined.kml