

2.4.1

DVRPC's Dynamic Conflation Tool

Presenter

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The Delaware Valley Regional Planning Commission (DVRPC) is responsible for coordinating and developing a regional GIS road centerline file for the nine counties surrounding and including Philadelphia. This area includes counties in both New Jersey and Pennsylvania. As a result, the differences in how road centerlines are collected, linear referenced, and used causes great difficulty in developing a single set of centerline attribution that satisfies everyone's needs. Linear Referencing Systems (LRS) can help solve the issue of what attribution to store on the centerlines by providing a base referencing network that any data can leverage to reference locations on the centerline. However, with two state DOT's using established LRS environments, and nine counties that may or may not have any interest in linearly referencing all the data to a local road LRS or have the resources to maintain a complex LRS, the process of generating and maintaining a regional LRS presents additional challenges.

As a result, DVRPC and GeoDecisions developed a new tool to assist the regional GIS users with dynamically conflating (Dynamic Conflation Tool or DCT) geographically referenced data to a regional centerline database with only basic route/street identifiers, thus mimicking the LRS dynamic segmentation process without the need for defining route traversals or complex linear distance information traditionally needed in an LRS environment. This tool will help counties with an LRS merge State DOT LRS information and road attribution into their local LRS environment. It will also help those without an LRS to get LRS dynamic segmentation functionality without the effort of maintaining a LRS network.

The presentation will cover the reasons for developing the tool, the potential cost savings in reduced data maintenance efforts for the DVRPC regional stakeholders, and a description of how the tool works.