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Linear Referencing GIS – Implementation of a Dynamic Segmentation System for MVPRC’s Transportation GIS

Presenter

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Miami Valley Regional Planning Commission (MVRPC) is a voluntary association of governmental and non-governmental organizations serving as a forum and resource where regional partners identify priorities, develop public policy, and implement strategies to improve the quality of life and economic vitality throughout the Miami Valley Region. MVRPC acts as a Regional Planning Commission for 5 counties and as a Metropolitan Planning Organization (MPO) for 3 counties in west-central Ohio, performing planning activities developing regional transportation, community, and environmental plans for the region.

MVRPC has been using GIS since the late 1980s providing enhanced technical support to regional planning activities. Further, MVRPC has been taking a leadership role by applying the latest GIS technology in the planning process. Over the years, the use of GIS has grown and become a vital operation within the agency, providing functions such as spatial database management, technical spatial data analysis, and map generation to facilitate a better decision making process.

As GIS developed into an essential tool in carrying out daily planning functions, the need for a more efficient and effective data management system became a critical matter. Further, in order to incorporate complex information into the planning process, the compatibility among various datasets became an important issue that needed to be addressed. Responding to these demands, MVRPC is in the process of applying the Dynamic Segmentation techniques to existing linear referenced GIS datasets that are used for regional transportation planning.

The process of applying the Dynamic Segmentation concept has been quite a challenge for MVRPC, especially when the focus of planning activities is at the regional level, covering multiple counties. This presentation will highlight issues that MVRPC had to address from the conceptual to the actual implementation stages and share the lessons learned during the process.