

Linear Referencing in ArcGIS Pro

Course Length: 1 day
ArcGIS Version: Pro 2.x
App: ArcGIS Pro

Overview

ArcGIS stores geometry (points, lines, and polygons) to represent the location of features on the Earth. When analyzing features that fall along a linear corridor, such as a highway, pipeline, or river, linearly referenced datasets are used. Linear Referencing allows the user to create a linear model of real-world features, displaying things like pavement quality, speed limits, number of lanes, and even stop lines as events at a location along the line. It allows for the display of multiple layers of attribute along the same linear system, and for the analysis of those features in terms of lengths along the line.

Audience

Those in the transportation industry who are familiar with ArcGIS and want to understand linear referencing and its use in transportation in ArcGIS Pro; including, but not limited to: Traffic Engineers, Planners, Technicians, and GIS Analysts.

Topics Covered

Day 1

- Introduction to Linear Referencing Systems (LRS) – Understand the advantages of using an LRS along with traditional geometry in GIS. (LRS as a Linear Model of a Transportation Network; Routes, Events, and Measures; Understanding the LRSID; Making Sense of Measurements Along a Road; Dealing with Time, and Historic Events)
- Working with Event Tables – Exploring event tables as a data source. (How do Event Tables Represent Features Along a Line?; Understanding the Route ID and From/To Measures; Point and Linear Events; Creating Event Tables by Overlaying Feature Classes with the LRS; Displaying Event Tables)
- Route and Event Display – Visualizing events. (Using Symbology Options on Event Layers; Cartographic Offsets to Visualize Multiple Events; Labeling and Hatching a Route)
- Analysis with Events – Answering questions and solving problems with an LRS. (How Routes are Created and What Needs Updated if They Are Edited; Locating Features Along a Route; Querying Events; Using Make Route Event Layer; Using Events in Analysis Tools; Overlaying Route Events)

Format

In-person or online instruction with hands-on practice and course materials you can keep

Prerequisites and Recommendations

Attendees should have knowledge of Microsoft Windows® and be familiar with the basic use of ArcGIS Pro, including the topics covered in the **Introduction to ArcGIS Pro** and **Intermediate ArcGIS Pro** classes.