Working With Geometric Networks in ArcMap

Course Length: 8 hrs
ArcGIS Version: 10.x

Overview

Geometric Networks are used in ArcGIS to create a model of real-world networks, such as a system of water lines, valves, and taps or an electric network of meters, lines, transformers, and power stations. Geometric Networks are built with existing point and line feature classes and are controlled by a set of connectivity rules and other behaviors. Pipe and line breaks, the effects of disabled lines, and location of crucial infrastructure components are easy once a geometric network has been created. This course will introduce you to Geometric Networks in ArcMap. You will learn how to create a network, how to maintain it, and how to run analysis on the lines.

Audience

ArcMap users who want to model their real-world networks as Geometric Networks in ArcMap. This knowledge will benefit professionals from the following industries: local and regional water distribution, wastewater and storm water management, electric and gas distribution, electric, gas, and oil transmission lines, and hydrologists managing river systems, among others.

Topics Covered

- Geometric Networks – An Overview – Description. (Understanding Real-World Networks; The ArcGIS Geometric Network Model; ArcGIS Geometric Network Tools)
- Geometric Networks – Components and Essential Terms. (Geometric Networks Primary Components: Edges and Junctions; Essential Terms; Network Rules and Behaviors)
- Exploring a Geometric Network. (Flow Direction; Understanding Sources and Sinks; Tracing Upstream and Downstream; Using Barriers and Flags)
- Creating a Geometric Network. (Creating a Geometric Network; Loading Data Into a Network; Using the Simple Data Loader and Object Loader; Validating Features; Defining Rules and Behaviors)
- Editing Geometric Networks. (Overview of the Editing Process; Adding Geometric Network Features; Enabling and Disabling Features; Moving Features and Maintaining Connectivity; Validating and Repairing Geometric Networks)

Format

In-person 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 Desktop (ArcMap), including the topics covered in the **Fundamentals of ArcGIS** class.