

Network Analyst: An Introduction

Goals of the workshop

- Provide high-level overview of the Network Analyst Extension.
- Describe network analysis capabilities available.
- Discuss modeling transportation networks.
- Explain network dataset options.

Major topics covered

- The Network Analyst Extension: What is it; where can it be used?
- Using Network Analyst: ArcGIS Desktop; ArcGIS Engine; ArcGIS Server; geoprocessing.
- Network Analyst components: Using the network layer, network analysis layer, network analyst window and toolbar to perform network analysis.
- Network Analyst solvers: Explore capabilities of the route, closest facility, service area, OD cost matrix, and vehicle routing problem solvers.
- Barriers: Using point barriers to restrict traversability of roads.
- Hierarchical routes: Discuss using hierarchy for faster solving and more realistic routes.
- Network Locations: Discuss finding locations, reverse geocoding, location fields, and curb approach.
- Time Windows: Explain using time windows to sequencing routes.
- Network Comparison: Compare capabilities of geometric networks and network datasets.
- Modeling transportation data: Discuss recommended data model.
- Network Connectivity: Explain connectivity policies, connectivity groups, and elevation fields.
- Network Attributes: Discuss commonly used attributes; using evaluators.
- Turns: Explain turns and explore options available; discuss global turns and turn features.
- Creating network datasets: Explain defining sources; connectivity policies, attributes, evaluators, and directions.
- Multimodal networks: Considerations when modeling multiple modes of transportation within a single network.