

Network Conflation

TBP Travel Forecasting Subcommittee

May 22, 2009

History of Networks and GIS

- XY node coordinates from MinUTP
- Over 10 years ago conflated to TIGER
 - Added shape to network links
- Developed Master Any Year Network
- Contracted for enhanced GIS/Network integration

Why Change?

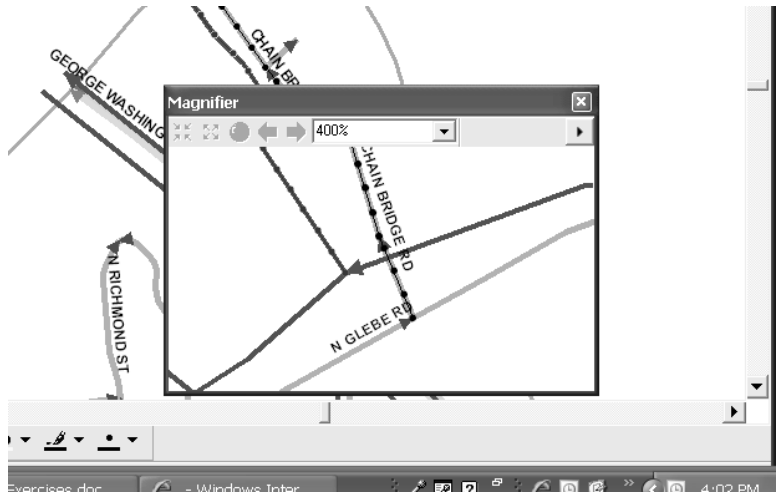
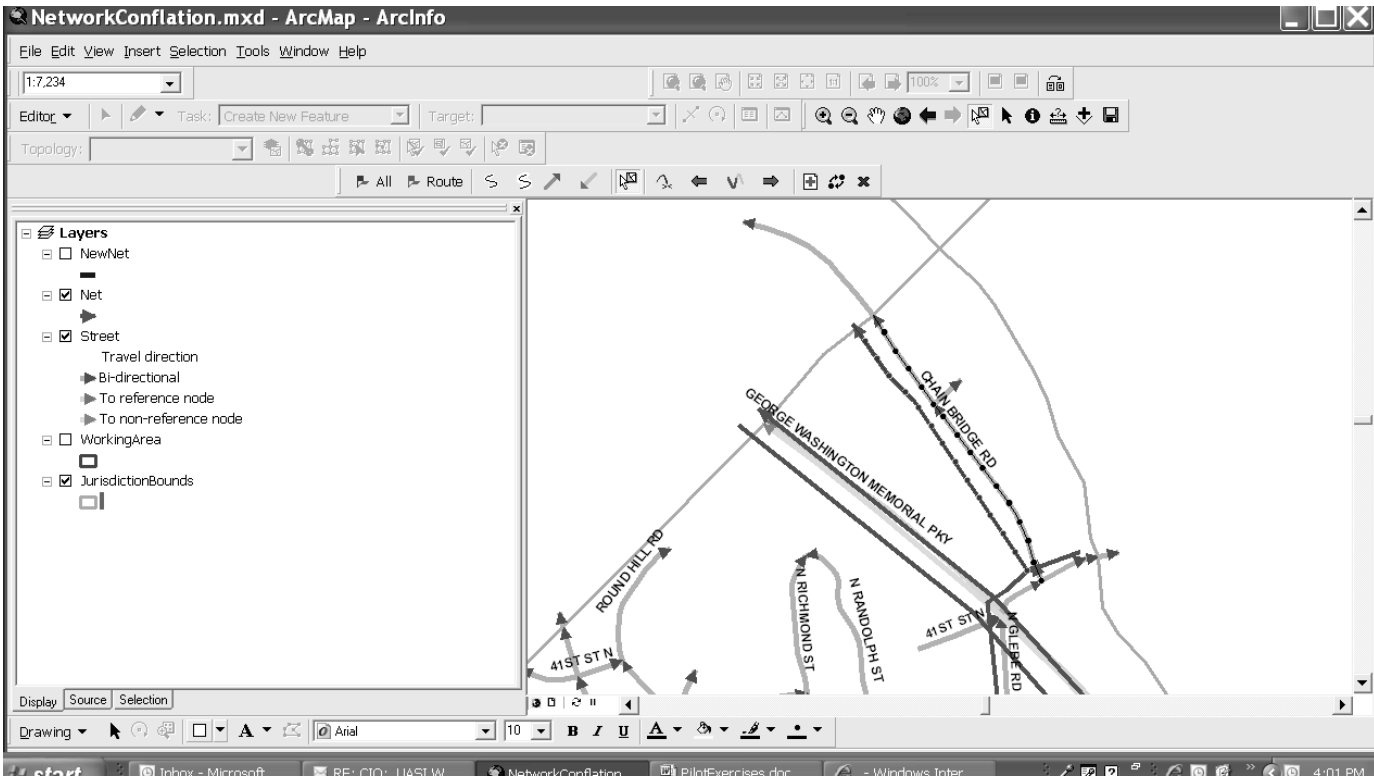
- Enhanced Viewability
 - Aerial Photography
 - Google Earth
- Matching GPS Surveys
- Matching other data layers
 - New TAZ
- Identifying Network Errors

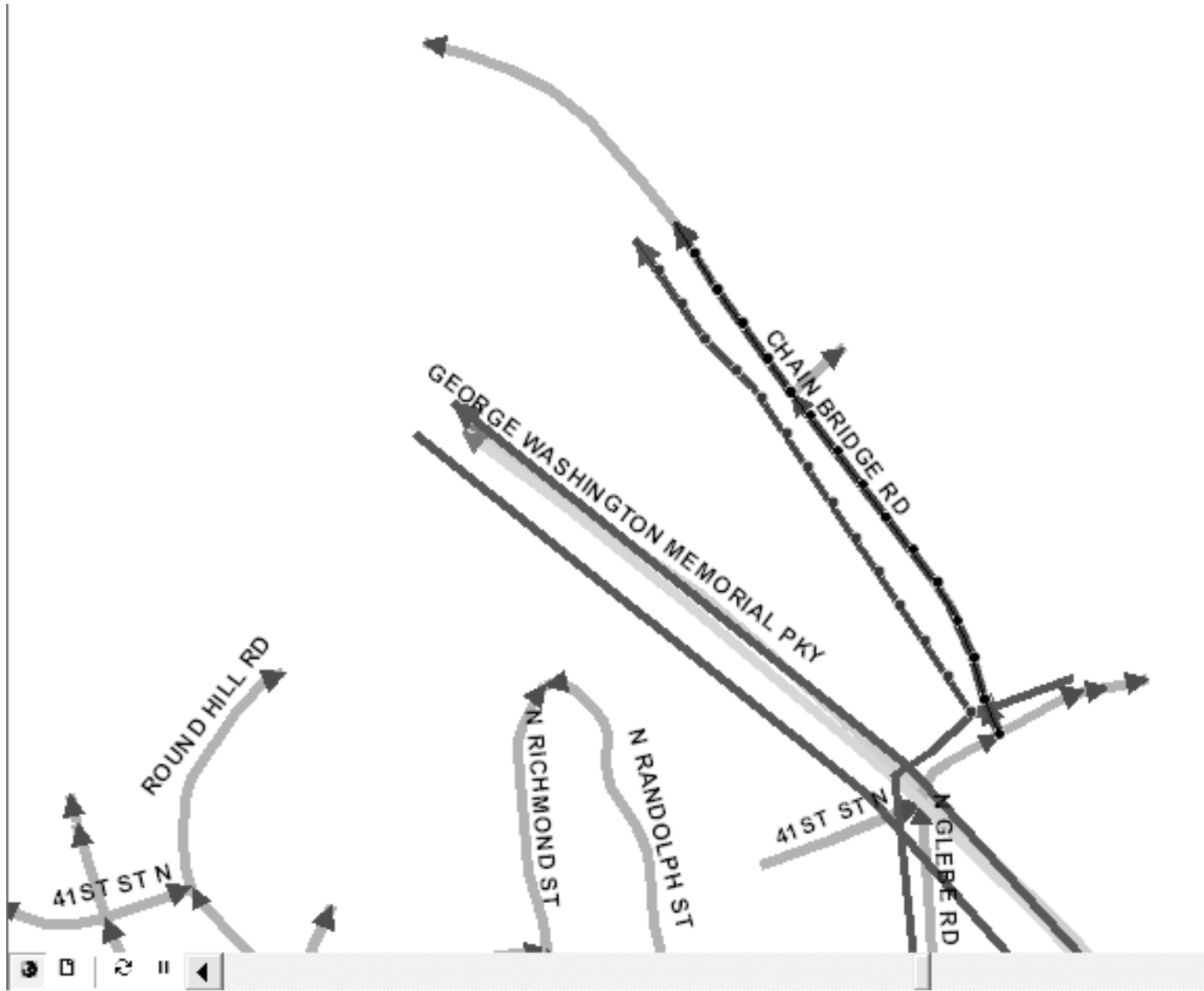
Requirements

- Concurrent with other network projects
- One-to-one correspondence with current Master Network.
- Set of rules to be followed
 - Dual roadways in NavTeq, single roadway in Network
 - Multiple intersections in NavTeq, single intersection in Network

Functionality

- Link by link
 - Chooses a Network link
 - Uses a buffer and the link name to identify possible matches in NavTeq Streets layer
 - Operator chooses the best fit
 - Application adds the link to the “New Network”
 - No “drawing”





Additional Tools

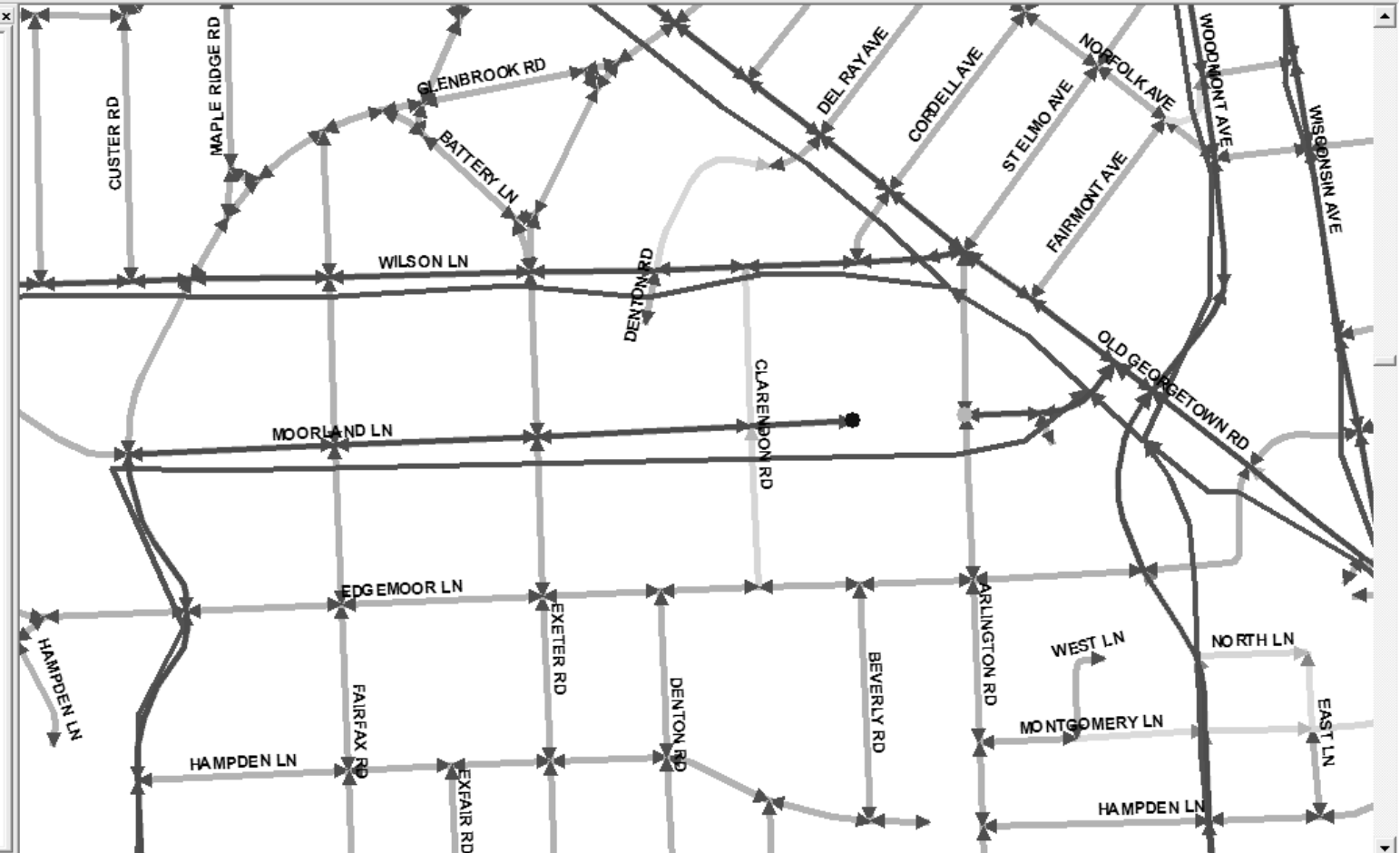
- Increase/decrease search buffer
- Change direction of link
- Zoom to a specific link
- Delete a link that the operator previously added
- Tools for selecting and unselecting matching NavTeq links
- Refresh selection

Error Correction Tools

- Identify Areas where nodes do not meet
 - Link needs to be flipped
 - Sections need to be added/deleted
- Identify duplicate Link-IDs
- Flag a link and add notes
- Identify Areas where there are gaps in a link
 - Sections need to be added
 - Network Coding does not follow NavTeq

Layers

- NewNet
- Net
 - Travel direction
 - ↔ Bi-directional
 - ▶ To reference node
 - ▶ To non-reference node
- WorkingArea
- JurisdictionBounds



Next Steps

- Match fallout
 - Highways
 - Ramps
 - Future Facilities
 - Drop in nodes
- Reassemble region
- Load into Master Network Database
- Review flagged areas in network editor