



Esri International Developer Summit
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Using Geometric Networks with Python and Geoprocessing Services

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Geometric Network Geoprocessing Tools

1. **Create Geometric Network**
2. **Add Edge-Edge Connectivity Rule**
3. **Add Edge-Junction Connectivity Rule**
4. **Remove Connectivity Rule**
5. **Remove Empty Feature Class**
6. **Find Disconnected Features in Geometric Network**
7. **Verify and Repair Geometric Network Connectivity**
8. **Rebuild Geometric Network**
9. **Set Flow Direction**
10. **Trace Geometric Network**

Create Geometric Network

- Provides all of the settings and options available using the “Create Geometric Network” wizard.

Add Edge-Edge AND Add Edge-Junction Connectivity Rule

- Provides a tool to add connectivity rules to your network without opening the Geometric Network's property page
- If created using python, the script can be saved and re-used if you ever need to recreate your network.

Remove Connectivity Rules

- Allows the removal of connectivity rules through scripting, as well as using the GP tool

Remove Empty Feature Class

- Allows the removal of a Network Feature Class from a Geometric Network
- Is a useful cleanup tool, if you have several 'retired' classes in your Geometric Network
- Prevents re-creating the Geometric Network to remove classes from it

Find Disconnected Features in Geometric Network

- Helps as a QA tool
- Identifies features from a selected layer that are disconnected from the rest of the network
- Can be scripted

Verify and Repair Geometric Network Connectivity

- Provides access to a more exhaustive check of the connectivity of your network
- Verifying the connectivity of your network can be scripted to run as part of a nightly process

Rebuild Geometric Network

- **Very heavy-weight operation**
- **Should not be run without first contacting support**
- **This is a no-rollback operation**

Set Flow Direction

- Behaves like the UI 'Set Flow Direction' button on the Utility Network Analyst toolbar
- Provides access to the option to set the flow direction based on digitized direction, previously only available using a custom script

Trace Geometric Network

- Gives access to tracing
- Can be published as a tracing Geoprocessing Service, to be consumed by Desktop, web app, or mobile client

Demos



- **Session Survey:** <http://www.esri.com/events/devsummit/session-rater>
- **Dev Summit Page:** www.esri.com/devsummit

- **Questions?**



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