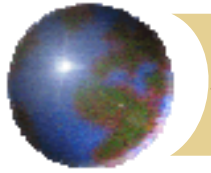


*An ArcGIS Schematics
Application for an
Electric Utility*

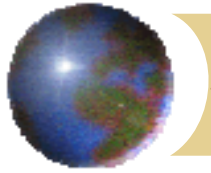
By Diego Portillo



Abstract

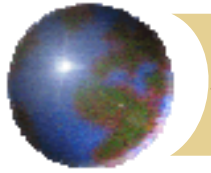
How do you display a network of more than 6 miles of line in a small monitor? Using the new version of ArcGIS Schematics and your network, your organization should be able to move its lines and points any where to make the display 'pretty and fitted.' Using your network, you are still able to do any trace, edit your data, move your points and line, and keep the integrity of it without duplicating work and efforts. You can even use your EGDB or PGDB and bring it to the field.

ArcGIS Schematics is not just for military applications, electric utilities can profit immensely from it. This is an example of the application.



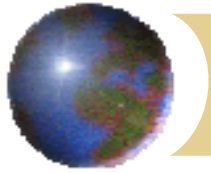
About United Power

- Headquarters in Brighton, CO. District offices in Coal Creek Canyon and Fort Lupton
- Founded in 1938. Delivered power January 1940
- United Power serves electricity to approximately 60,000 meters
- Cities and counties served by United Power are currently undergoing extremely rapid growth
 - 9% annual growth rate
 - 4,500 to 5,000 new accounts per year



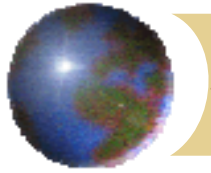
The Network

- 1,800 miles of Distribution Overhead
- 1,300 miles of Distribution Underground
- 714 Switching Facilities (PMH, GW...)
- 25 Substations and 97 Feeders



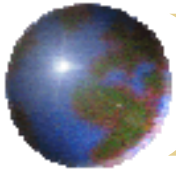
The Problem

- Difficult to display long spans on a 19in monitor
- Difficult to display long spans or connectivity on laptops
- Difficult to have information in one place and share throughout organization
- 1-Lines or Schematics are maintained in AutoCAD

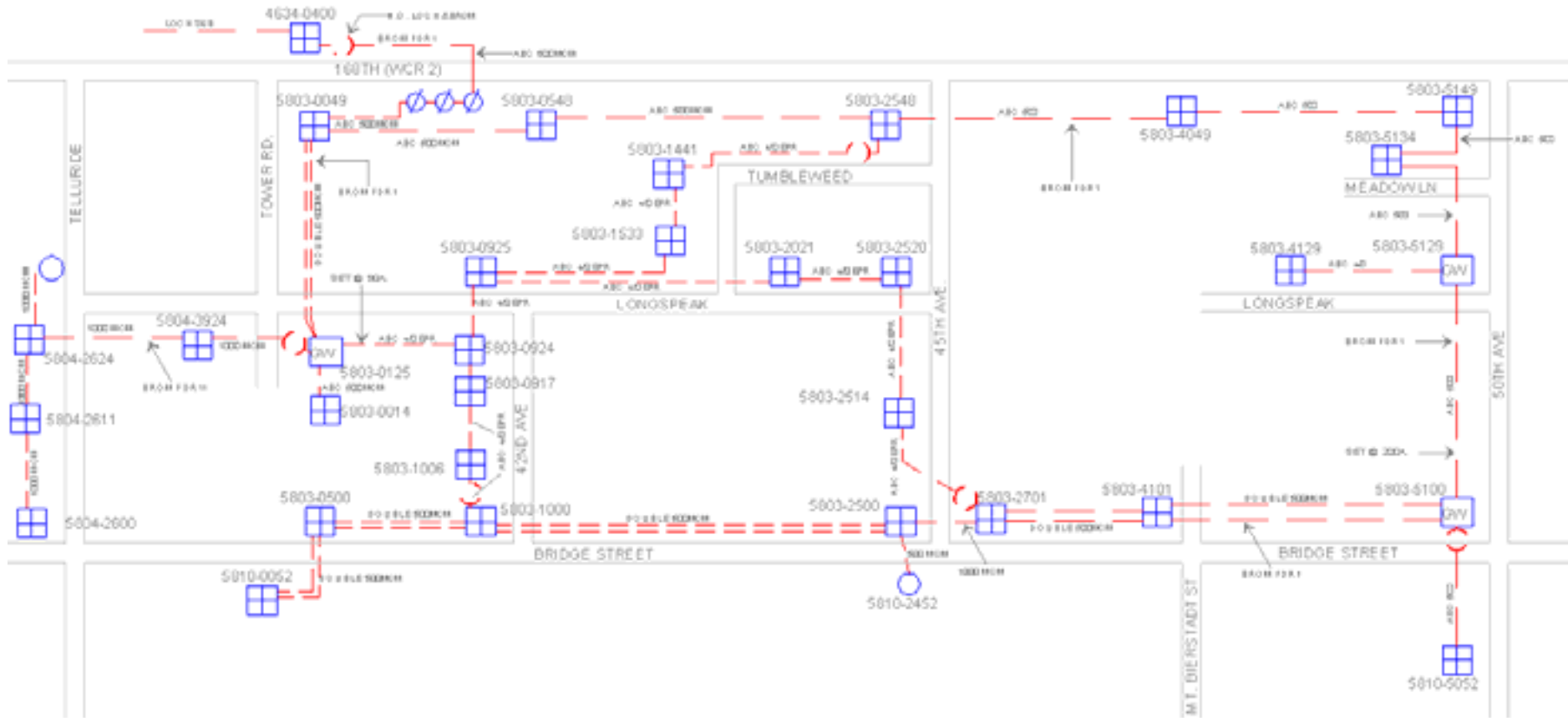


AutoCAD

- ⊕ Is a great “drawing tool” but...
- ⊕ Does not maintain connectivity
- Static model
- One Version = One Person
- Double entry and maintenance
- Licensing



AutoCAD vs ArcGIS

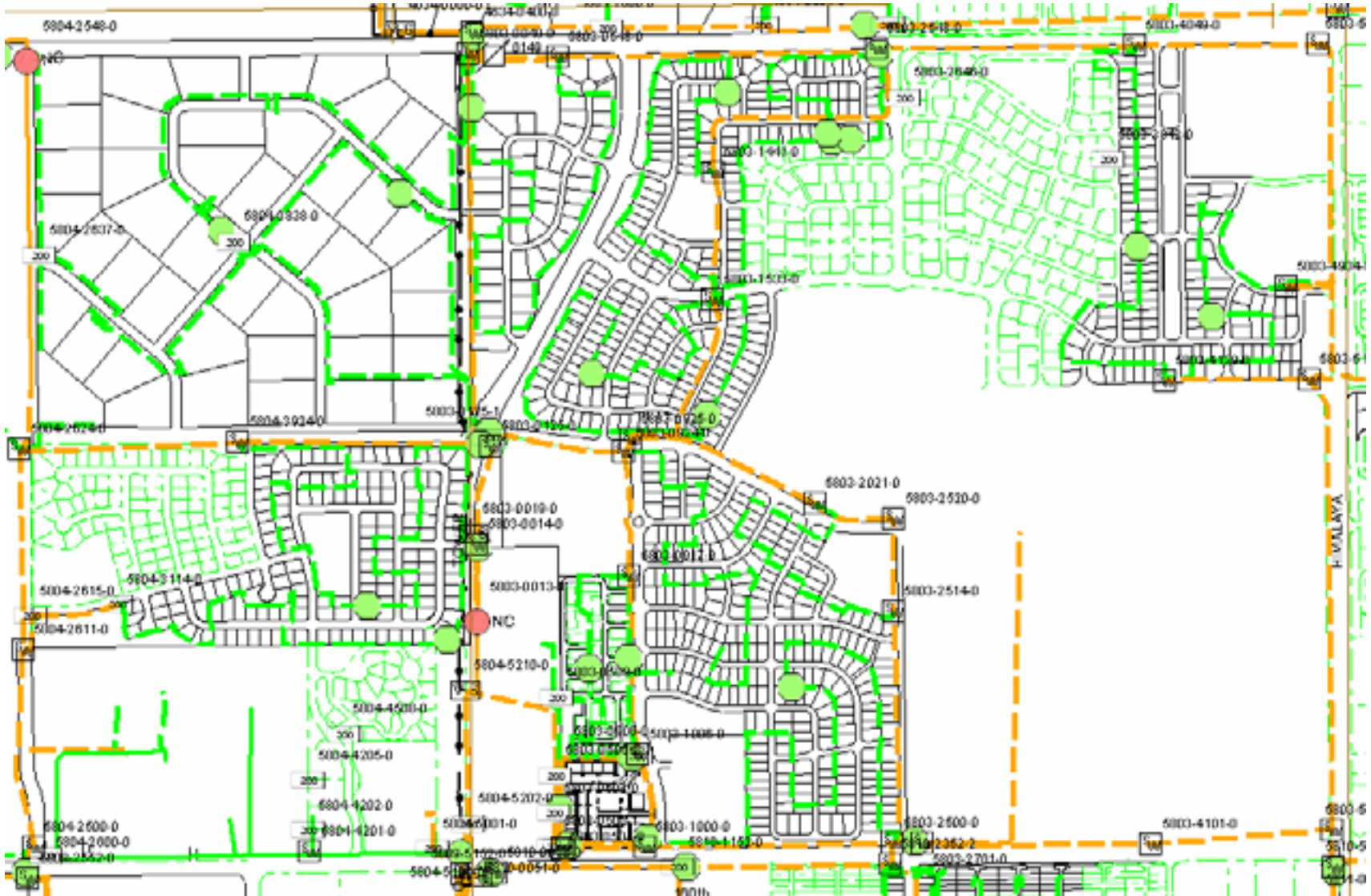
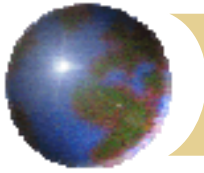


BRIGHTON EAST FARMS

REVISED 7/30/03 BOM

8/9/2006

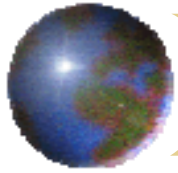
United Power, Inc. GIS Team for
ESRI UC 2006



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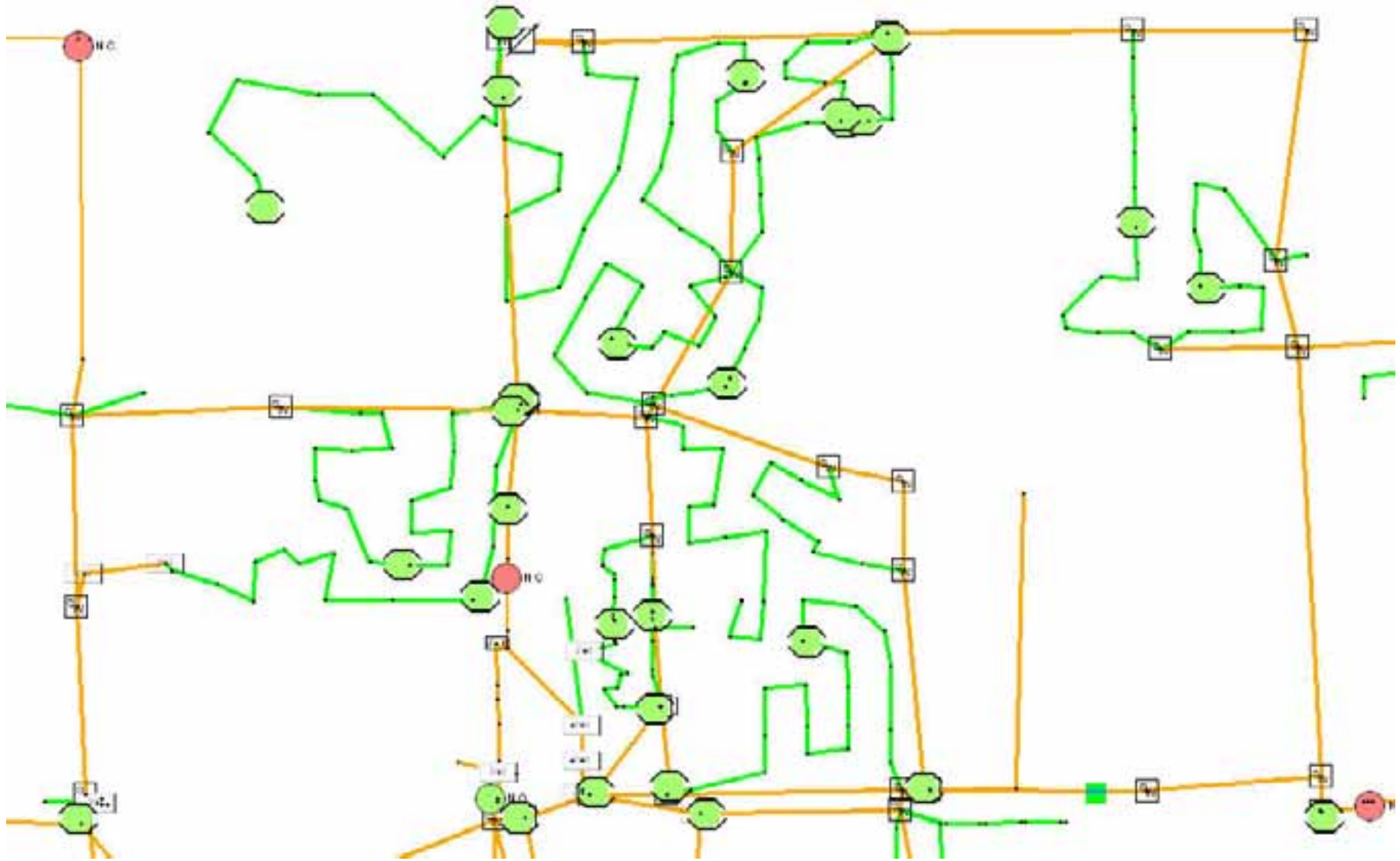
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ArcGIS Using ArcSchematics

- Maintains Connectivity
- Network Analysis tools
- Versioning Schema = Multiple Editors
- One place for multiple users
- One place for editing and configuration



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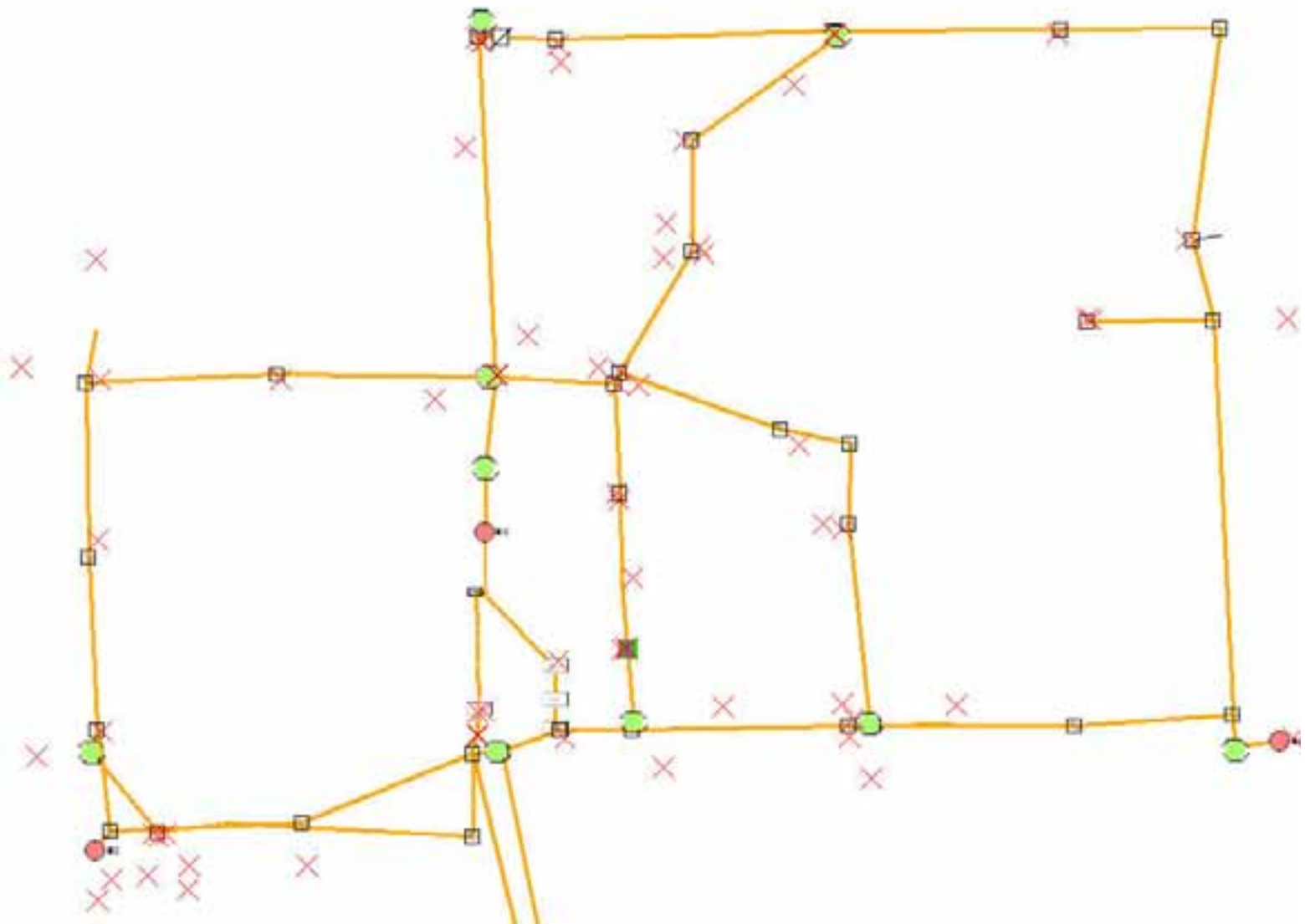
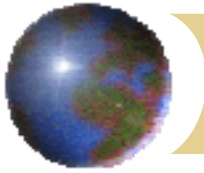
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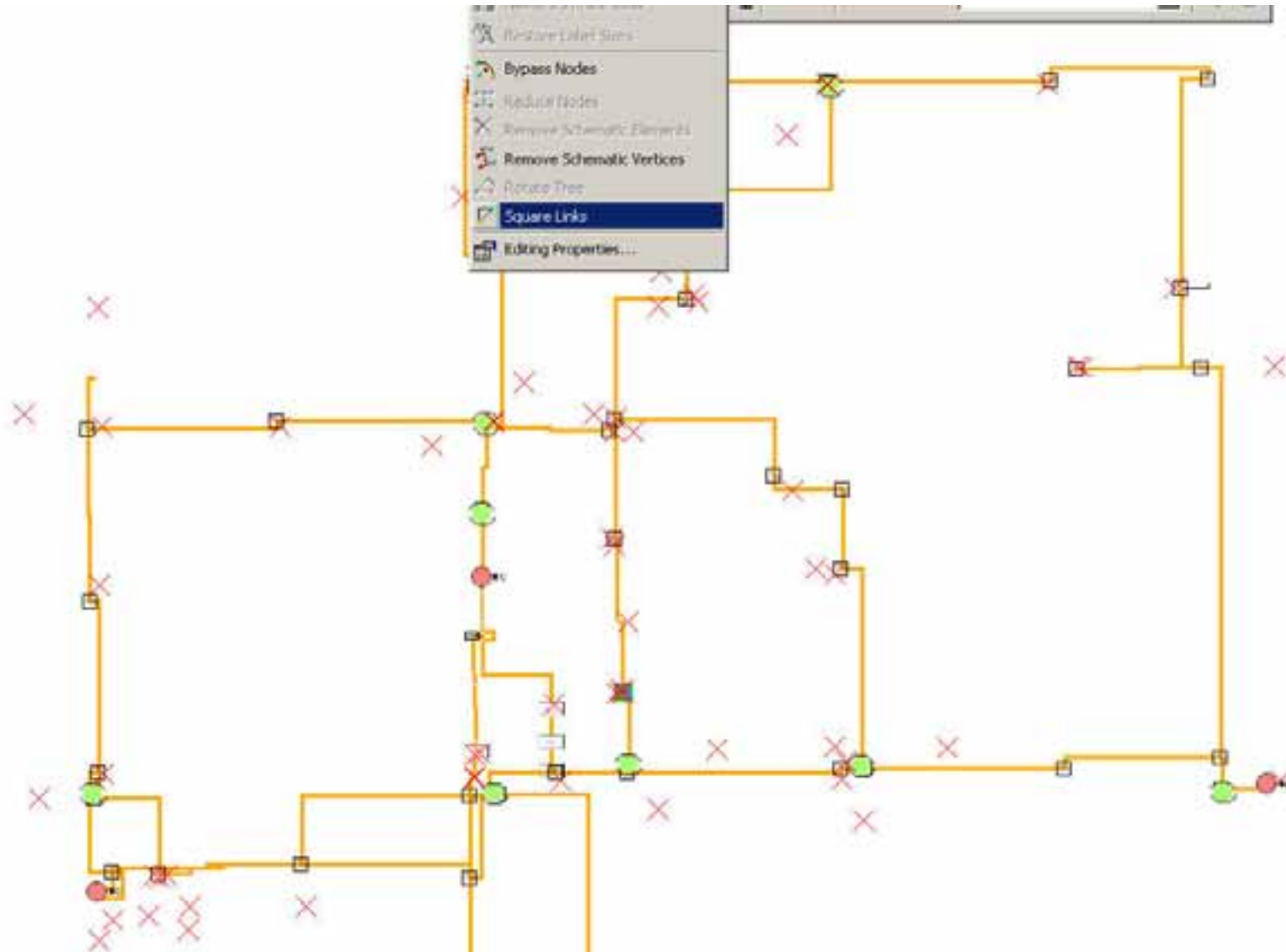
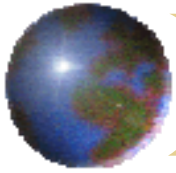
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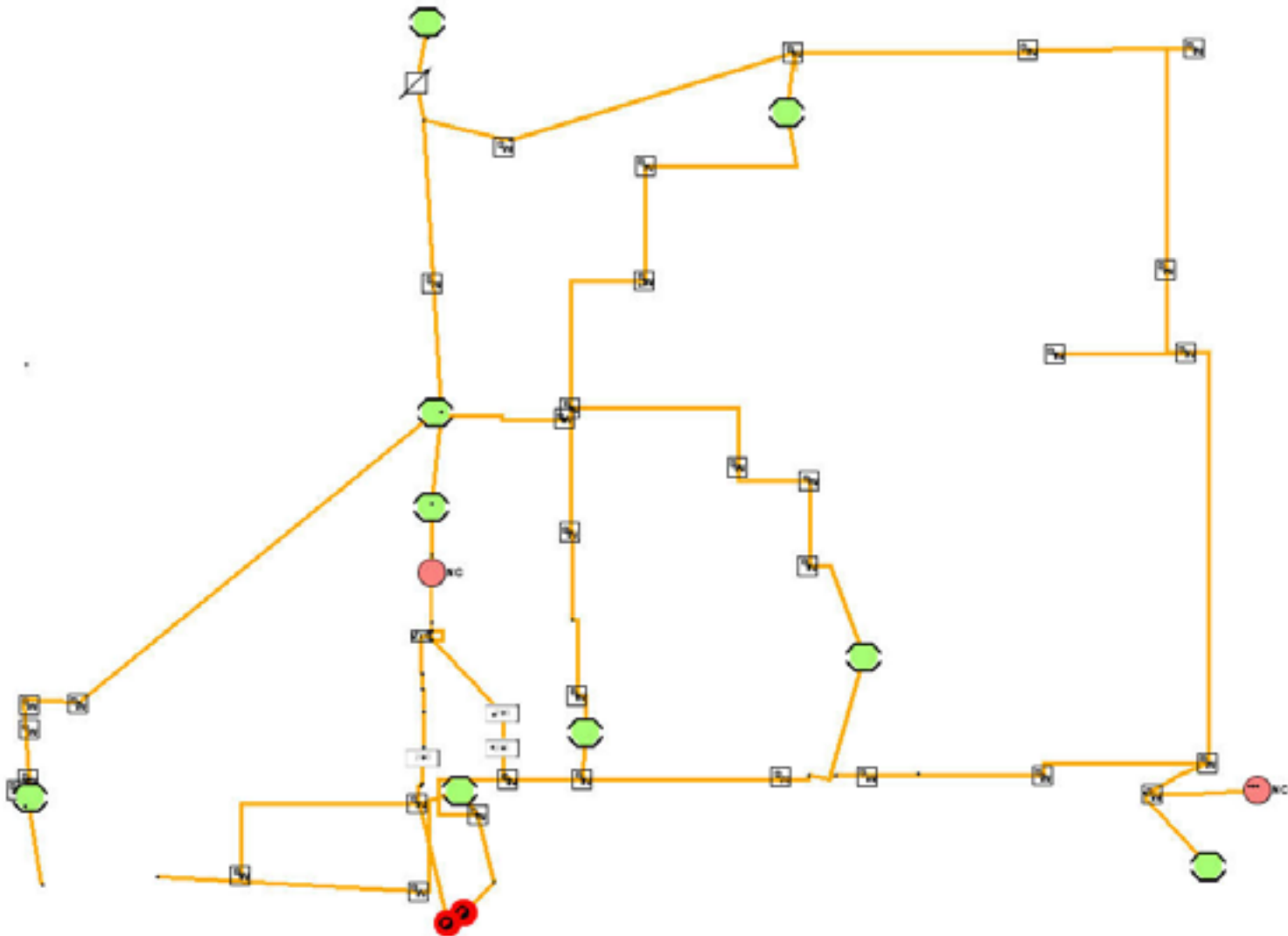
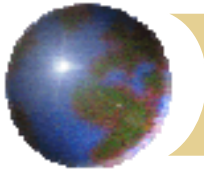
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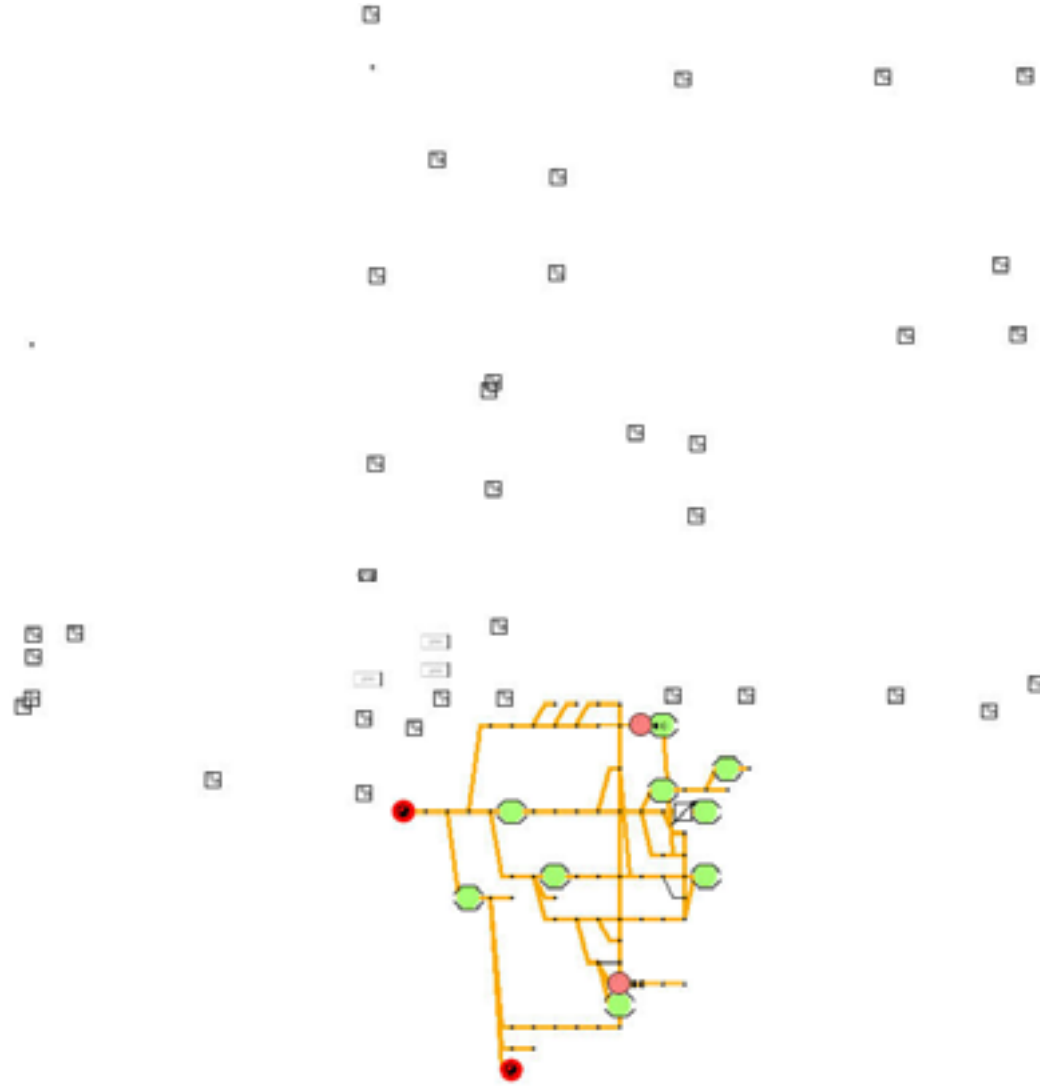
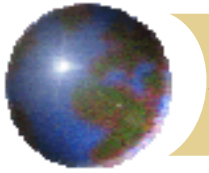
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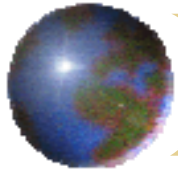


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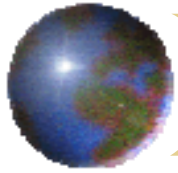




ArcSchematics

● Not so Positive:

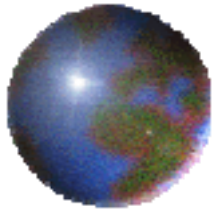
- ❑ Couldn't create Schematics in EGDB; needs additional configuration
- ❑ Symbology does not transfer well (working on)
- ❑ Symbology difficult to set up (working on)
- ❑ Some tracing tools not available
- ❑ Selection vs Tracing when Schematic creation and editing
- ❑ Data Quality; bad data = bad tracing = bad Schematic
- ❑ Labels did not transfer



ArcSchematics

● Positive:

- Easier to use in 9.1
- License Server easier in 9.1
- Fast Schematic creation
- Editing capabilities
- Full integration with ArcGIS
- Full use of Network when editing
- Good ESRI documentation and support

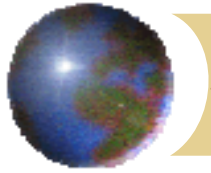


*United Power Application
Demonstration
and
Questions*

8/9/2006

United Power, Inc. GIS Team for
ESRI UC 2006

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Acknowledgments

- Mark Taetz – ESRI
- Mitzi Rea – United Power, Inc.

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