Route System Coding in TransCAD

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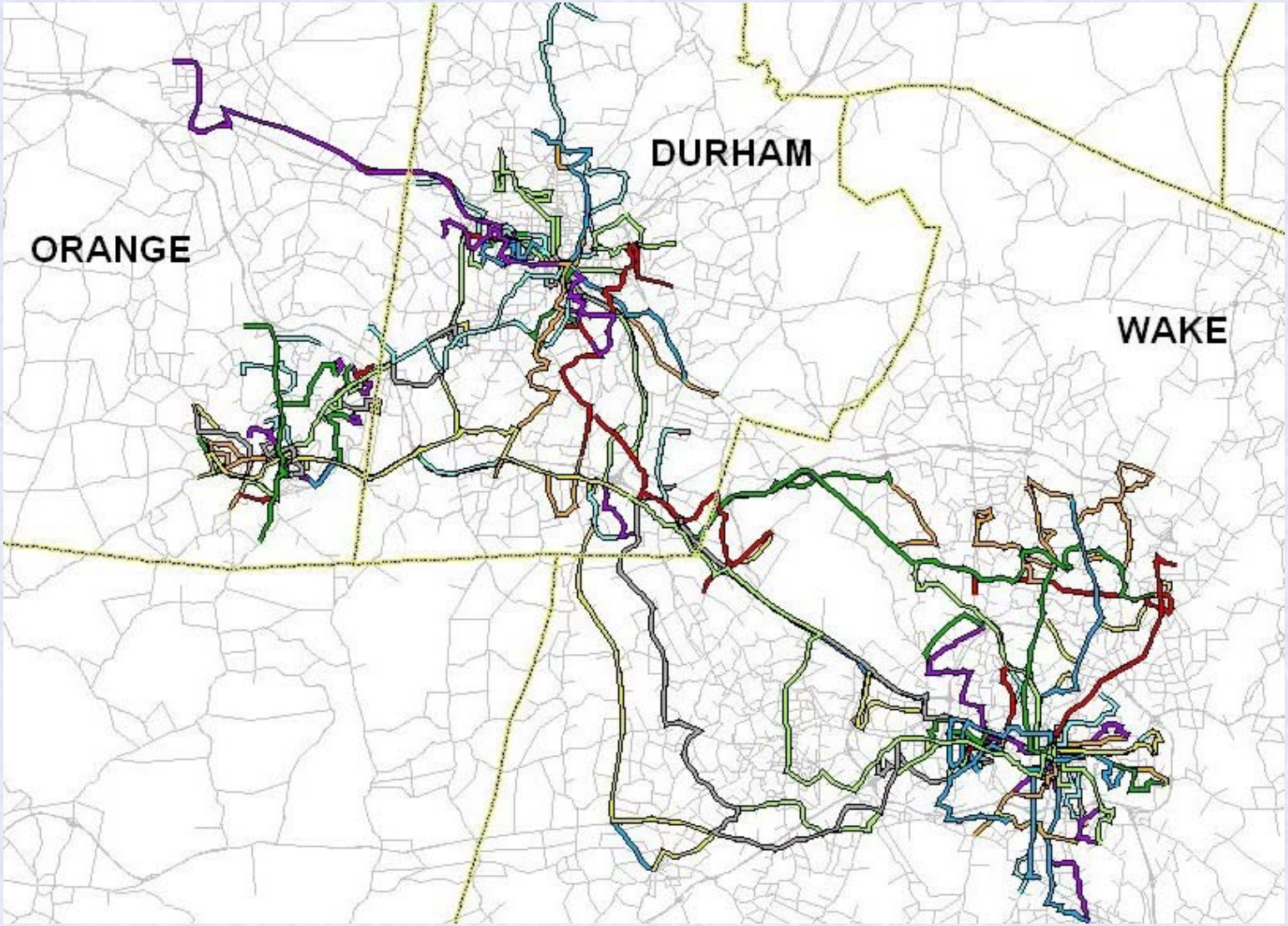
Presentation Topics

- Introduction
- Components
  - Line and Node Layer
  - Network
  - Route System Layer
  - Route Stop Layer
- Summary
- Discussion

TRM 2002 Route System



Introduction

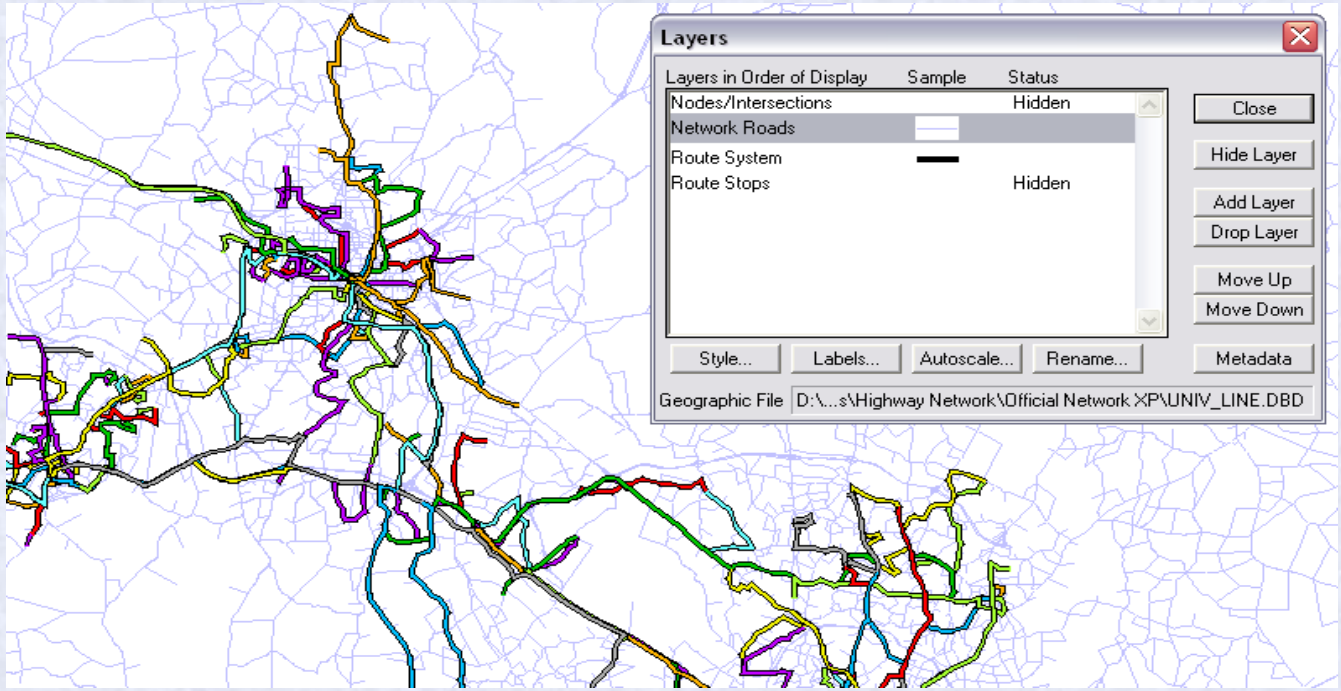
- Use the latest version of TransCAD
- Reload, Verify, and Archive
- Document

Transit Route System Components

- Line and Node Layer
- Network
- Route System Layer
- Route Stop Layer

Line and Node Layer

Use .rts File



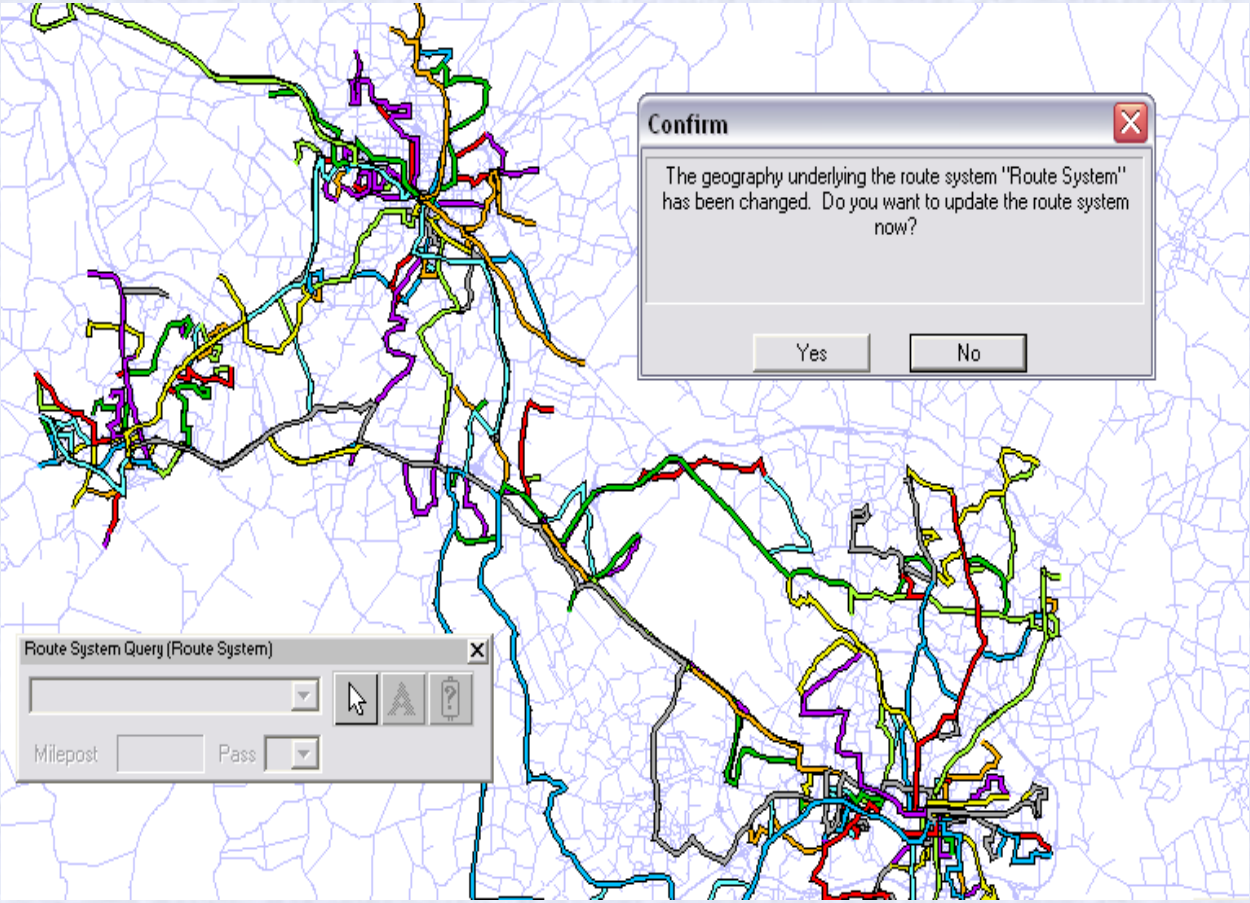
<u>TransCAD 4.7 or previous</u>

ModifyRouteSystem("C:\\temp\\UNIV_TRANSIT.rts", {{"Geography", "C:\\temp\\UNIV_LINE.dbd", "NetworkRoads"}})

<u>TransCAD 4.8</u>

dir = "C:\\temp\\"ModifyRouteSystem(dir + "UNIV_TRANSIT.rts",{{"Geography", dir + "UNIV_LINE.dbd"," NetworkRoads "}})

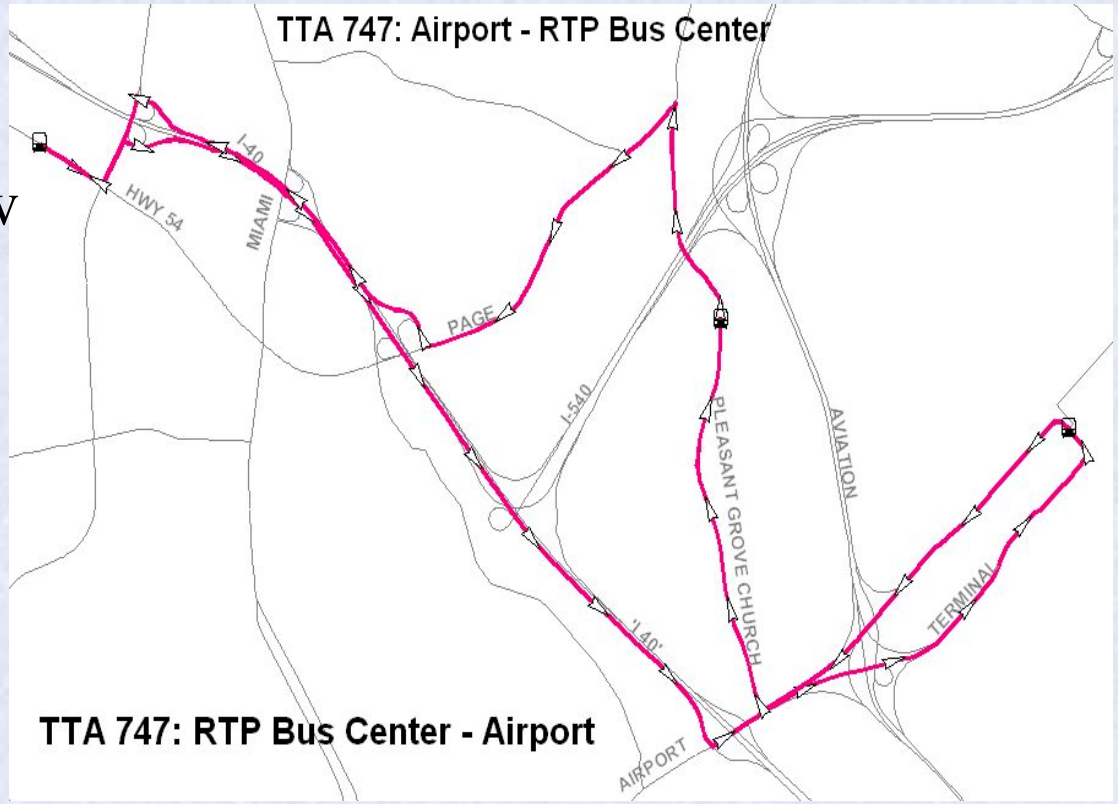
Network



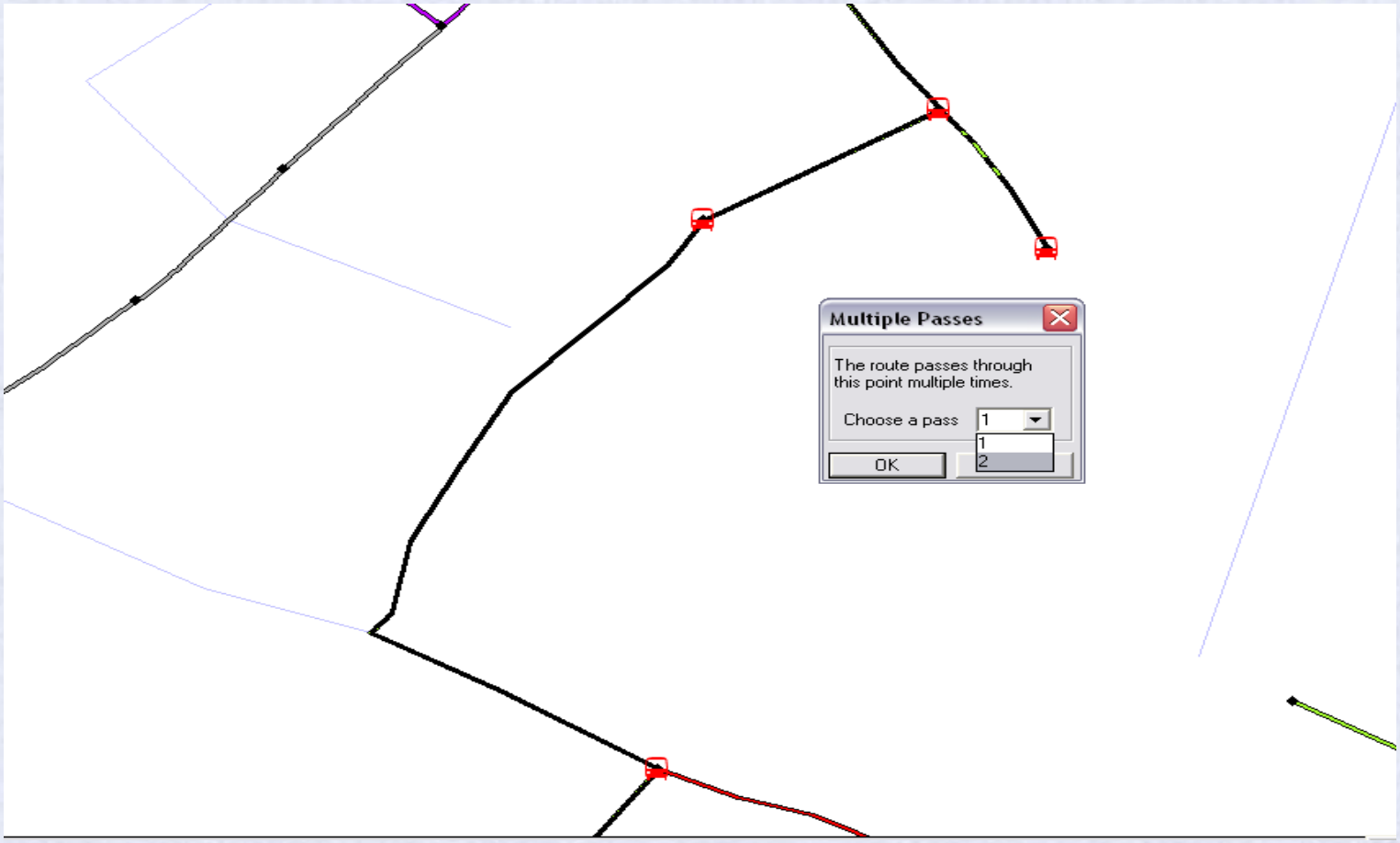
- Create
- Recreate
- Update
- Verify
- Archive

Route System Layer

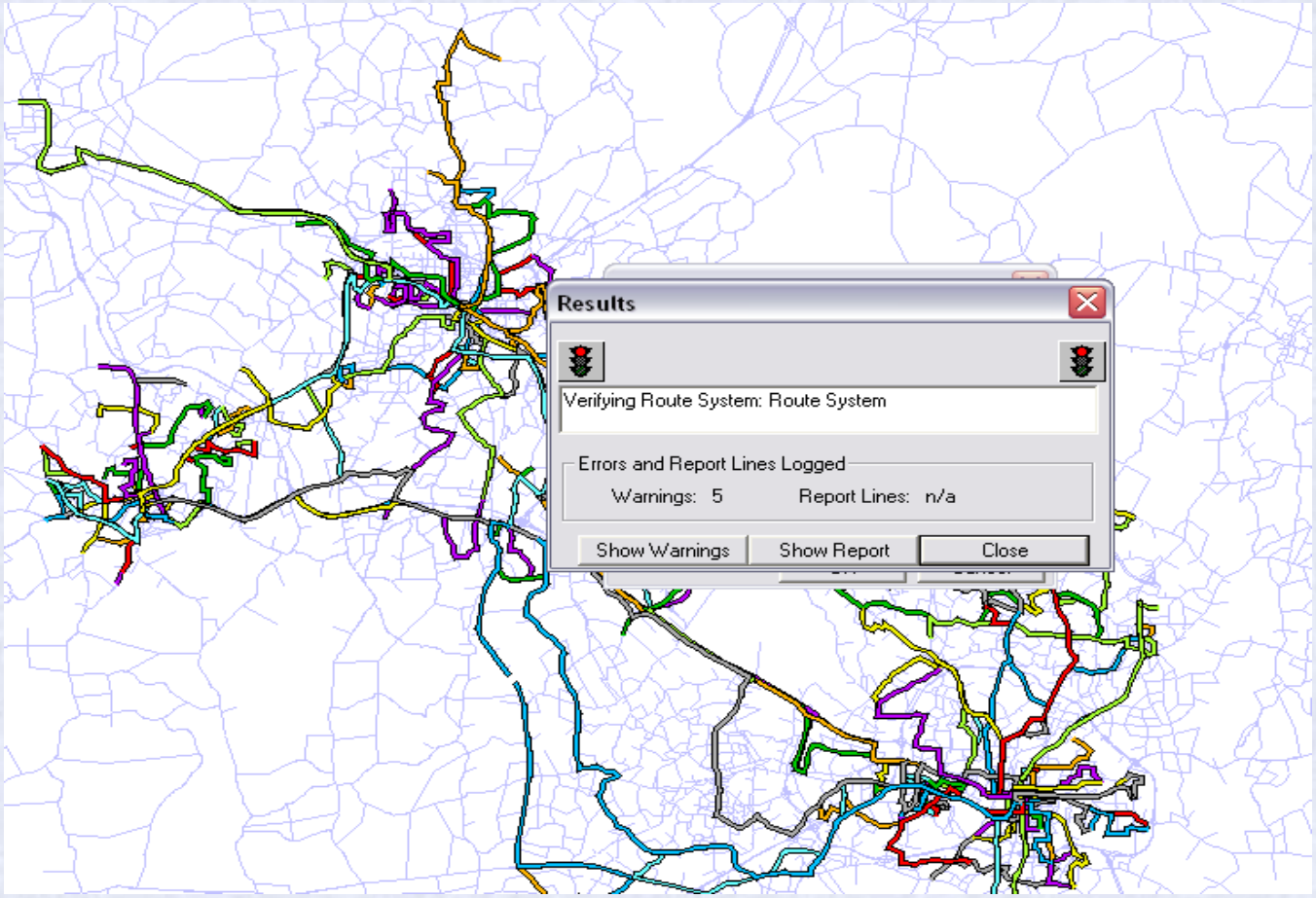
- Click Segments
- Direction of Flow
- Directional
- Loop
- Double back



Double Back Route



Route System Warning



Route 1465 is not connected near link 7452

Verifying Route System: Route System

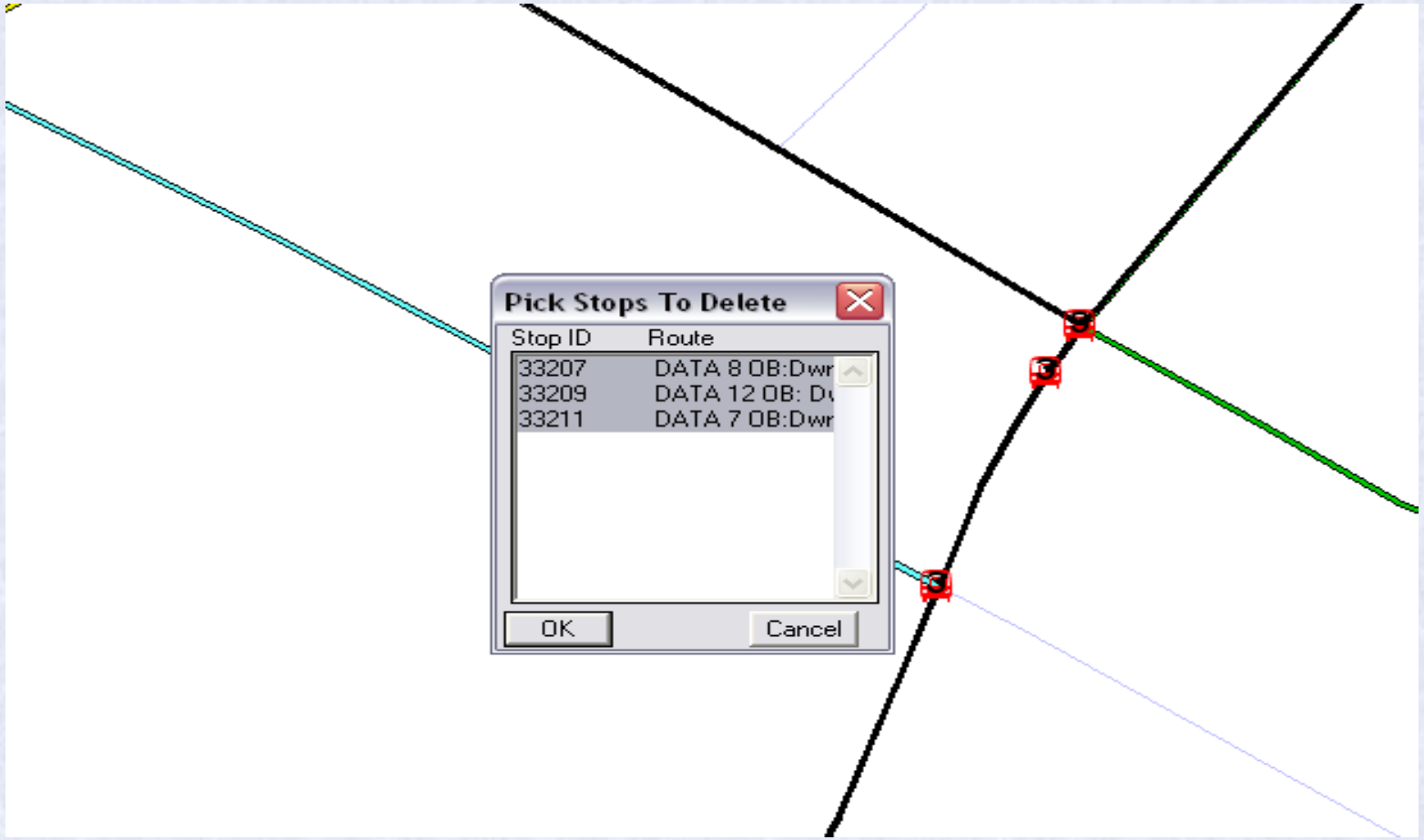
Dataview Table

- Create a Line Number Field
- Use xxxR.bin
- Reload, verify, archive, document

Route_ID	Route_Name	Time	Operator	Company	Mode	[Line No.]	FARE	AMPK_HDWY	OP_HDWY	XFERPEN
881	DUKE PR2:BassettDr-ScienceDr	--	6	15	5	619	0.00	10.0	10.0	3.00
882	DUKE PR2:ScienceDr-BassettDr	--	6	15	5	620	0.00	10.0	10.0	3.00
890	DUKE PR1: Entry11-Bassett	--	6	15	5	618	0.00	12.0	17.5	3.00
891	DUKE PR1: Bassett-Entry11	--	6	15	5	617	0.00	12.0	17.5	3.00
927	DUKE C1:EastCampus-WestCam	--	6	15	5	601	0.00	4.0	4.0	3.00
928	DUKE C1:WestCampus-EastCam	--	6	15	5	602	0.00	4.0	4.0	3.00
957	DATA 14(SB):NCCUShuttle	--	4	14	5	426	0.75	15.0	15.0	3.00
958	DATA 14(NB):NCCUShuttle	--	4	14	5	425	0.75	15.0	15.0	3.00
1013	NCSU KingVill4:Gym-WgroveP&R	--	5	15	5	509	0.00	15.0	15.0	3.00
1017	NCSU Varsity5:Gym-Vars.Parking	--	5	15	5	513	0.00	15.0	15.0	3.00
1019	NCSU WolfShut7:Gym-AdminSer	--	5	15	5	518	0.00	10.0	10.0	3.00
1023	NCSU CtCampus2:DHHillLib-Text	--	5	15	5	507	0.00	15.0	15.0	3.00
1030	NCSU AventFerry1A:TalleySC-Va	--	5	15	5	503	0.00	15.0	17.5	3.00
1037	CAT7 IB:SuperKMart-MooreSqSt	--	2	12	5	213	0.75	30.0	60.0	150.00
1114	DUKE H3 EB:Hosp.N-H'boro&9th	--	6	15	5	611	0.00	10.0	17.0	3.00
1117	DUKE H1:PG3-Entry11	--	6	15	5	608	0.00	7.0	14.5	3.00
1121	DUKE H1:Entry11-PG3	--	6	15	5	607	0.00	7.0	14.5	3.00
1126	DUKE H2:HospNorth-PG3	--	6	15	5	609	0.00	10.0	10.0	3.00
1127	DUKE H2:PG3-HospNorth	--	6	15	5	610	0.00	10.0	10.0	3.00
1133	DUKE H3 WB:H'boro&9th-Hosp.N	--	6	15	5	612	0.00	10.0	17.0	3.00

Route Stops Layer

Multiple Route Stops



Route Stop Warning

- Stops outside distance criteria from a node
- Consecutive stops are tagged to the same node.

```
Building Transit Network (January 31, 2005 - 04:44 PM)
        Incorrect Tag Info at Stop    9345
        Incorrect Tag Info at Stop    9356
        Incorrect Tag Info at Stop    9357
        Incorrect Tag Info at Stop    9361
        Incorrect Tag Info at Stop   11640
    ------------------------------------------------
```

Stop Dataview

ID	Longitude	Latitude	Route_ID	Pass_Count	Milepost	STOP_ID	TAGGEDID	NODEID
33208	-78947039	35995050	1628	1	0.000000	33208		5665
33209	-78944135	36000058	1628	1	0.386170	33209		5671
33211	-78943680	36005569	1628	1	0.916683	33211		5638
33207	-78941351	36006672	1628	1	1.067701	33207		5630
33210	-78940299	36005273	1628	1	1.181157	33210		5628
33203	-79113115	36086974	1627	1	0.000000	33203		3463
33191	-79099700	36081329	1627	1	1.039717	33191		3419
33192	-79099638	36080367	1627	1	1.106141	33192		3418

Summary

- Limit Edits
- Use the latest version of TransCAD
- Open the .rts file to make line layer edits, route system edits, or route stop edits.
- Recreate the Network, Reload the Route System, Verify the Route System
- Archive the Route System, Archive the Line Layer, and Document the Edits.

Questions
&
Discussion