TRANSIMS Version 4.0

May 2008 Release

Change Log edited: 5/9/2008

SysLib

Route nodes network services were modified to provide a warning message and skip nodes not found in the node file rather than an error message that terminates the execution.

Ridership services were enhanced to check the schedule time when identifying the stop index in order to address potential inaccuracies caused by including the same stop multiple times on a route.

XYZ_Point, Point_Data and Z_Array structures and classes were added and Link_Shape and Smooth_Shape methods were expanded to include Z_Array data. ArcView_File class was modified to accommodate Z and/or M coordinates.

The Shape file, data, and read services were modified to accommodate Z coordinates.

The Round method was modified to round negative numbers more appropriately.

OUTPUT_XYZ_SHAPES and OUTPUT_XYM_SHAPES keys were added to the projection services to facilitate generation of ArcView shapesfiles with XYZ or XYM coordinates.

The execution and report services were expanded to include the option for a parameter or a partition number.

A bug was fixed in the Point Array Set method.

The shape offset calculation in Link_Shape was improved.

The length units in the Smooth_Shape function were corrected.

Logic was added to the network Read_Zone method to print the highest zone number in the report.

The problem code number was added to the problem summary report.

TransimsNet 4.0.9

The closest zone logic was modified to avoid selecting an external zone number for an internal activity location. The link use code for an external station link is now copied from the internal link it attaches to. A warning message was added when external station links do not have network connectivity. The maximum length of a pocket lane now considers the setback distance at both ends of the link. Bridge facility types are now treated as major arterials in the thru link selection process. New zone file process was added with the option to derive the zone data from

the input zone file or the input node file. A bug was fixed in reading the signal warrant keys. Added logic to avoid creating stop signs on walk and rail links. The signal warrant logic was improved for dividing arterials and intersections with only one entry option. External activity locations and parking lots are no longer added to external links that do not permit autos and do permit rail. The lane connectivity logic was improved for imbalanced merged.

LocationData 4.0.4

NEW_USE_FLAG_FIELD_* and LINK_USE_FLAG_TYPES_* keys were added to permit multiple use flags to be added to the file at one time.

TransitNet 4.0.14

The route nodes network services that generate warning messages rather than error messages for missing nodes were included. HOURLY and DAILY parking cost fields were added to the input park-&-ride node file. A bug was fixed in the XY coordinate calculated for the stop activity locations. Logic was added to search for a cross street that permits walking when the transit link does not permit walking. Warning messages were added when activity locations are added to links that do not permit walking. Protection was added for negative stop offsets caused by stops on very short links. Logic was added to generate external stops and activity locations on external access links.

TPPlusRoute 4.0.2

Logic was added to combine the headways and travel times for routes that are merged and have service in the same time period. A bug was fixed when PERIOD_TRAVEL_TIMES is false.

ArcNet 4.0.18

Logic was added to copy the name and notes fields from the transit route file to the arcview shape file. The link retrieval logic for Route Nodes files with negative node numbers was fixed and the message when a link between two nodes is not found was changed from an error message to a warning message. ArcView shapesfiles with XYZ or XYM coordinates were enabled.

Router 4.0.42

MAX_KISS_RIDE_DROPOFF_WALK and KISS_RIDE_STOP_TYPES keys were added to permit the user to control the maximum distance between a parking lot and a transit stop that will be considered for kiss-&-ride trips, and control the types of transit stops were kiss-&-ride trips are permitted. A bug was fixed in the fare class distribution control interface. A bug was fixed for park-&-ride/kiss-&-ride trips where the activity location and parking lot record ordering are different for a given location. PARKING_PENALTY_FILE key was added to include impedance penalties at specified parking lots as a way of balancing parking demand to parking capacity. The parking cost and penalty data were attached to the access link from the parking lot to the activity location for standard drive and park-&-ride modes. The penalties and parking costs are not included in the kiss-&-ride trips. The vehicle ID was initialized to zero to avoid problems processing activity files. Improved the computational efficiency of for transit fare processing.

ArcRider 4.0.3

New program to generated ArcView shapefile from the transit ridership data. Protection was added for situations where line groups include zero routes. ArcView shapesfiles with XYZ or XYM coordinates were enabled. A bug was fixed in the line group graphics for excluding lines with no ridership from the shapefile.

ConvertTrips 4.0.16

The trip groups with return trip duration (typically park-&-ride and kiss-&-ride) were modified to improve the balance between outbound and inbound trips. Location weight field checks and automatic corrections are no longer performed. The network zone file was included to optionally check the zone data against zone numbers in the zone file. The network link file was included to optionally check that the activity location is on an auto accessible link before generating a warning about missing parking lots.

Reschedule 4.0.6

ROUTE_HEADER_FILE key was added to adjust the schedules based on time period running time values.

GISNet 4.0.7

The logic was modified to read Z and/or M coordinates.

ArcAddZ 4.0.1

New program to convert ArcView shapefiles from XY coordinates to XYZ or XYM coordinates. A bug was fixed in the z coordinate initialization.

ArcDelay 4.0.13

ArcView shapesfiles with XYZ or XYM coordinates were enabled.

ArcDiff 4.0.3

The XYZ or XYM coordinates from the input delay file #1 are used to set the output difference file coordinates.

ArcPlan 4.0.17

ArcView shapesfiles with XYZ or XYM coordinates were enabled.

ArcProblem 4.0.2

ArcView shapesfiles with XYZ or XYM coordinates were enabled.

ArcSnapshot 4.0.7

ArcView shapesfiles with XYZ or XYM coordinates were enabled.

ActGen 4.0.18

Travel time budget information was added to the tour data passed to the location choice scripts. An problem check was added to catching activity scheduling conflicts between tours.

Microsimulator 4.0.44

Transit vehicles are now added to the priority queue at all times.

RunSetup 4.0.3

The program was significantly rewritten. Add PROGRAM_FLAGS key to insert a control flag on the command line. Several changes were made to the batch file generation logic to enable the program to work better with Linux operating systems.

IntControl 4.0.10

Warning messages are now only shown for the first time period.

GISNet 4.0.8

Logic was added to correct link shapes based on AB orientation. Warning messages about different coordinate locations were added.

PlanSum 4.0.37

A bug was fixed in the time periods for transit link group reports.