TRANSIMS Version 4.0

August 22, 2006 Release

Change Log edited: 8/21/2006

General Notes: An open source documentation utility was applied to the source library to document the hierarchy, usage, and organization of the classes in each program.

SysLib

AB_Key was changed to accept external node values even when Renumbering is requested.

The Transit Driver service was updated to handle all link direction methods.

Database Arrays were created to facilitate variable field data arrays for user program processing. A few method names were changed to minimize conflicts between Db_File methods and Data_Array methods.

A zone matrix index key class was developed and implemented as a root class for trip tables, skim, and factor files. It enables more flexible combinations of zone and time period ranges. The Factor data and Skim data classes were added to the Demand Service. The Skim class includes the Version3 format or breakdowns of path components by mode group.

ActGen 4.0.0

Activities were generated for synthetic households; vehicles were assigned to drivers; and passengers were assigned to vehicles.   Control keys and data structures were added to implement location choice models. Database arrays were added to provide user access to all Activity Location and Household fields. The location choice model was implemented as a user program script or a distance-based model. It is applied to each Activity Location using round-trip tour information by time of day. A series of zone skim files were also made available to the user scripts to facilitate mode and time-of-day specific choice models.

ConvertTrips 4.0.5

A zone equivalence file and report were added to support trip adjustment factors for each trip group. The factor file enables the user to increase or decrease the number of trips between selected district interchanges. The MINIMUM_TRAVEL_TIME key was changed to ADDITIONAL_TRAVEL_TIME to clarify its meaning.

AdjustPlans 4.0.2

This is a new program to adjust plan files to better match a set of traffic counts by time of day. It deletes and replicates plans and vehicles so the link demand by time of day approximates the traffic counts. Counts from different time periods are normalized to hourly error rates to avoid adjustment bias. A convergence file can be created to document the resulting count and volume differences by time of day.

PlanTrips 4.0.0

This is a new program to create a trip file from a plan file. This program is being used to convert the output of AdjustPlans into a trip file that can be input into the Router as part of the feedback process.

PlanSum 4.0.8

The link summary logic was modified to work with plan files that are not sorted by traveler. The zone skim keys and process was changed to use the new skim classes. The new keys are ZONE_SKIM_FILE and ZONE_SKIM_FORMAT. The original output will be generated if the format is TAB_DELIMITED. Time values are now recorded as integer seconds rather than floating point minutes. The NODE_LIST_PATHS key was added to permit summaries of link-list plan files. The volume and travel time processing was modified to include traffic on the parking lot links.

SubareaPlans 4.0.10

The Definition file and header records for subarea files were corrected to eliminate duplicate fields.

NewFormat 4.0.2

Modified the location field in the activity survey conversion to number locations based on the coordinate fields.

Microsimulator 4.0.12

The program changed to properly handle the situation where a transit vehicle was unable to enter the network at its scheduled start time.

Documentation

Case Study 2 was added and tutorials were developed for Case Studies 1, 2, and 3.   The ConvertTrips documentation was updated. Draft ActGen documentation was included.