TRANSIMS Release 4.03

Software differences between 4.02.02 and 4.03

Change Log edited: 8/19/2008

SysLib

Vehicle ID, Sort, Walk Location, Bike Location, and Transit Location problem types were added to the Problem Service.

The default size of the zone file zone field was increased from 5 to 10 digits.

An additional reporting line was included in the time difference output class to print the total difference between the two datasets. This is intended for use as a gap convergence statistic. It is generated by EventSum and/or PlanCompare as part of a user equilibrium process.

The Trip Summary data array was expanded to include standard data entry and report generation methods.

Vehicle Use data class was moved out of ActGen data directory and into the demand data directory.

Units enumeration codes and text were added to the demand services for the Emissions program.

OUTPUT_SNAPSHOT_MAX_SIZE_* key was added to limit the size of the snapshot file.

Household record index, array, and file classes were added.

Trip length data and array classes were added to generate for trip length distribution files by mode, purpose1, purpose2, and length increments.

The control list class was enhanced to facilitate reading multiple control files.

Header processing for reading the Speed Bin file was corrected.

Router 4.0.46

A bug was fixed in setting the traveler ID for the first activity in an activity file tour. ARCVIEW_PROBLEM_DUMP, PROBLEM_DUMP_TYPE, and PERCENT_PROBLEMS_DUMPED keys were added to dump an ArcView image of the state of the path building when a problem was encountered. The vehicle ID problem type was added. Corrections were added to properly interpret the vehicle occupancy and vehicle passenger records from an activity-based input file. PLAN_FILE and PLAN_FORMAT keys were added to enable the program to read and update an existing plan file. Household type classes inheriting from the household record classes were added to the data subdirectory. HOUSEHOLD_RECORD_FILE key was added to selectively re-route specific combinations of household, person, and trip values. The household data structure was replaced with the

household type structure and the household record and household list processing was integrated using this class. The trip and activity file processing was modified to consider household, person, and trip selections.

Microsimulator 4.0.48

The logic was changed to avoid problems caused when transit vehicles fail to load onto the network. The look-ahead lane changing logic was modified to include the lane change penalty for the initial lane change. The OUTPUT_SNAPSHOT_MAX_SIZE key was included to limit the size of the snapshot file.

PopSyn 4.0.6

HOUSEHOLD_FILE, POPULATION_FILE, and VEHICLE_FILE keys were added to enable the program to add records to existing files. LOCATION_WARNING_FLAG key was added to disable warning messages for zones beyond the TRANSIMS model area. The Population Report title was corrected. The State-PUMA list was modified to permit numeric state codes as well as state abbreviations.

ActGen 4.0.23

Logic was added to convert the time formats for the records copied from the input to the output activity file. NEW_HOUSEHOLD_MATCH_FILE was added to output the household match data to a tab-delimited text file. MODE_LENGTH_SUMMARY and MODE_PURPOSE_SUMMARY reports were added to summarize the length and travel time statistics by trip mode. The trip, tour, and mode length summary reports were replaced with the standard trip summary data array interface. Vehicle Use data was moved to the SysLib. Walk, Bike and Transit Location problem types were added to the problem summary. NEW_TRIP_TIME_FILE and NEW_TRIP_DISTANCE_FILE keys were added to dump out trip length distribution data by mode, purpose1, purpose2, and length increments (60 seconds or 500 meters).

PUMSPrep 4.0.1

New program to process PUMS data for input to PopSyn. CONVERSION_SCRIPT key and CONVERSION_SCRIPT and CONVERSION_STACK reports were added to enable the user to implement calculations or select population attributes to post on the household file. The field logic was also modified to enable the user to add blank fields to the household and/or population files to store program calculations.

SF3Prep 4.0.0

New program to process Census SF3 files for input to PopSyn.

SF3Dictionary 4.0.0

Software development utility to extract the table index from the SF3 documentation.

LocationData 4.0.7

BOUNDARY_POLYGON_# keys were added to associate activity locations within various polygons so that the conversion script can set variables or make calculations.

NEW_SUBZONE_FIELD, MAX_SUBZONE_DISTANCE, SUBZONE_DATA_FILE, SUBZONE_DATA_FORMAT, SUBZONE_DATA_FIELD, NEW_LOCATION_FIELD, DATA_FILE, DATA_FORMAT, DATA_JOIN_FIELD, LOCATION_JOIN_FIELD, and BOUNDARY_POLYGON keys were added to provide the option to specify each of these data processing options without the file group extension (i.e., _#). Additional NULL pointer checks were added.

ZoneData 4.0.1

New program to add data fields and join polygons to zone files. Additional NULL pointer checks were added.

CheckSurvey 4.0.2

New program to check and evaluate the activity survey records used as input to the activity generator. NEW_SURVEY_ACTIVITY_FILE and NEW_SURVEY_ACTIVITY_FORMAT keys were added to facilitate automated corrections to the survey data. Additional problem types were added to the new survey notes field and problem file to assist with data cleaning. If the first activity has zero travel time, the travel time is estimated by the using the travel time difference before and after the primary anchor activity in the tour.

TransitNet 4.0.15

The exit status for lane connectivity warning messages was changed to an error rather than a warning.

TransimsNet 4.0.12

Logic was added to properly label complex diverge configurations and the lane connectivity for multi-lane left side diverge movements was improved. Corrections were added in the thru-lane connectivity logic at major right and left side diverges such as a freeway-to-freeway splits.

LinkSum 4.0.19

A bug was fixed in the top 100 volume report.

Validate 4.0.15

The facility type labels were corrected.

ArcDelay 4.0.14

LINK_DATA_FILE and ARCVIEW_LINK_DATA_FILE keys were added to enable processing of two-way link data files.

ArcDiff 4.0.4

The logic was expanded to include processing of ArcView link data file. PERCENT_DIFFERENCE_FLAG key was added to include a percent difference field as well as a difference field.

SubareaNet 4.0.6

Additional conditional checks were added to the subarea transit network logic to address problems caused by routes that exit the subarea on the subarea boundary and express routes that exit and re-enter the subarea without making a stop outside the subarea or a stop within the subarea. Additional improvements were made to the subarea transit network generation.

SubareaPlans 4.0.24

The corrections to the subarea transit network logic developed for SubareaNet 4.0.5 were integrated into SubareaPlans. The leg numbering sequence and the travel time adjustment process was corrected for trips with multiple walk legs (e.g., transit trips). Additional improvements were made to the subarea transit network generation.

LinkDelay 4.0.7

TIME_PERIOD_SORT key was added to enable the program to output the link delay file sorted first by time period and then link number (rather than link number followed by time period). This makes the output consistent with the sort order generated by the Microsimulator as expected by Balfour's Output Visualizer

RunSetup 4.0.5

MODEL_NAME key was added to facilitate multiple parallel model tracks within a given project. Comment codes are now processed for keys that include null previous run numbers. The batch and control file naming convention was modified to include run, alternative, year, and model replacement keys in the file prefix if provided. A run name is no longer required and period or underscore separators are now more effectively removed from control keys when run, alternative, year, or model replacement keys are not provided. SETUP_CONTROL_FILE_# and SETUP_PARAMETER_# keys were added to enable RunSetup to process a list of RunSetup control files to create a single batch file for a multi-step process.

Emissions 4.0.1

Converted the Version 3.x Emissions program to Version 4.0 format. Expanded the emission rate table functionality to include multiple rate files and user-defined fields for year, month, time period, region, facility type, vehicle type, pollutant, speed bin, emission rate, and emission units to facilitate compatibility with EPA's MOVES and MOBILE6 programs. Keys were also included to select, regroup, weight, and label aggregate rate classifications for year, month time period, region, facility type, vehicle type, pollutant, and speed bin. Summary reports were added for combinations of area type, facility type, and vehicle type.