

## **TRANSIMS Version 4.0**

### ***August 2008 Release***

Change Log edited: 8/19/2008

#### **SysLib**

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.

Sort, Walk Location, Bike Location, and Transit Location problems was added to the problem service.

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.

#### **ActGen 4.0.23**

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).

#### **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.

#### **Router 4.0.46**

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.

#### **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

#### **SubareaPlan 4.0.24**

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.

#### **SubareaNet 4.0.6**

Additional improvements were made to the subarea transit network generation.

#### **TransimsNet 4.0.12**

Corrections were added in the thru-lane connectivity logic at major right and left side diverges such as a freeway-to-freeway splits.

#### **Microsimulator 4.0.48**

The OUTPUT\_SNAPSHOT\_MAX\_SIZE key was included to limit the size of the snapshot file.

#### **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.