# TRANSIMS Version 6.0

## July 2013 Release

TRANSIMS Version 5.1 was converted to Version 6.0.

Default Units of Measure was changed to English

The Vehicle File no longer exists.

New subarea extraction programs.

### SysLib

DRIVE\_SIDE\_OF\_ROAD key was added to Executive Service. Default value is RIGHT\_SIDE.

A bug was fixed in the command line flags that include more than one character.

A Get\_Group method was added to the equivalence classes to identify the group number associated with a specified ID value.

A No\_Warnings method was added the Message and Report services to ignore warning messages generated by the standard read and write procedures.

Get\_Key\_Description method was added to the Control services to generate key descriptions for the output report file.

A bug was fixed in stripping the quotes from the last field in a parsed string.

EQUIV function and an external Equiv\_Data pointer were added to the user program interface.

A binary heap template was added to manage a sort ordered queue.

### File\_Data\_Service

The Passenger field was removed from Trip, Plan, and Problem files.

The Vehicle File and Vehicle Data classes were removed.

The Transit Line data class was modified to include a list of vehicle types for each run.

The Transit Schedule file was modified to optionally begin each run sequence with a zero stop that permits the user to include a different vehicle type for each scheduled run. The read and write functions were updated to detect and process the vehicle type data.

The volume-delay travel time function was modified to re-set the link travel time to free flow travel time when the flow rate is zero.

### Router\_Service

The binary heap ordered queue replaced the map-based procedures in the impedance sorting option for drive, walk, and transit paths.

### ConvertTrips 6.0.1

VEHICLE\_PASSENGERS key is no longer supported. Vehicle type must be used to identify HOV trips. Vehicle and New Vehicle processing has been removed. Metric keys changed to English units.

### NewFormat 6.0.1

Vehicle and New Vehicle processing has been removed.

### TripPrep 6.0.1

Vehicle and New Vehicle processing has been removed. MERGE\_VEHICLE\_FILE key is no longer supported.

### Router 6.0.1

Vehicle processing has been removed. Metric keys changed to English units.

### PathSkim 6.0.1

Vehicle processing has been removed.

### ArcPlan 6.0.1

Metric keys changed to English units.

### ArcSnapshot 6.0.1

Metric keys changed to English units.

### GridData 6.0.1

Metric keys changed to English units.

### IntControl 6.0.1

Metric keys changed to English units.

### LocationData 6.0.1

Metric keys changed to English units.

### NetPrep 6.0.1

Metric keys changed to English units.

### RoutePrep 6.0.1

Metric keys changed to English units.

### TransimsNet 6.0.1

Metric keys changed to English units.

### TransitNet 6.0.1

Metric keys changed to English units.

### ZoneData 6.0.1

Metric keys changed to English units.

### ModeChoice 6.0.2

Added ACCESS\_MARKET\_SUMMARY report to print a mode share summary report for each of the mode access market classifications. ACCESS\_MARKET\_NAME\_\* keys were added to include a text distribution of each mode access market for inclusion in the report.

### ModeChoice 6.0.3

Added LOST\_TRIPS\_REPORT to print a message about origin-destination-table cells where all of the input trips and not distributed to output modes. A new set of mode attributes called NO\_\* were added to permit the modeling script to eliminate trip from a given table to be considered for a given mode. For example, SOV.NO\_Veh0 could be used to exclude trips from zero car households from using the single occupancy vehicle (SOV) mode.

### ModeChoice 6.0.4

A bug was fixed for the NO\_\* mode attribute to properly account for table field numbers when the user selects a subset of tables for processing.

### Router 6.0.2

A bug was fixed in multi-threaded versions when file partitions are specified, but the input plan file only includes one partition. A memory leak was fixed when multiple threads are used for iterative convergence applications.

### Reschedule 6.0.1

Logic was added to extract vehicle type information from each schedule record and add the information to the first record of each run in the schedule file. The logic was also restructured to included multiple line references for a given input file so that the process can assign the run schedule to the line that matches the greatest number of time points.

### PlanSum 6.0.1

NEW\_LINE\_ON\_OFF\_FILE was added to write a summary record for each line leaving selected stations that includes the riders, service capacity, and load factor for specified time periods.

### RiderSum 6.0.1

NEW\_STOP\_PROFILE file was modified to include the capacity of each transit vehicle using run-specific vehicle types. Run-based and capacity-based load factors are calculated using the data.

### PathSkim 6.0.2

An input Ridership file can be included to determine the amount of in-vehicle travel time that uses links with high load factors.

### SubareaNet 6.0.0

Newly converted and updated program from Version 4.0 to extract a standalone highway and transit subarea network using an ArcGIS polygon boundary file or a coordinate rectangle.

### SubareaPlans 6.0.0

Newly designed program to use a subarea network to truncate a regional plan file to subarea plan and trip files.

### Router 6.0.3

The link gap calculation for iterative processing was corrected to properly factor the volume and speed in the first iteration when an input link delay file is not provided. The travel time calculations were modified to base the time for the next iteration on the weighted volume and the volume delay equations rather than a simple factoring of travel time.

### TransimsNet 6.0.2

The range labels for warrant keys were made more descriptive and the description text was added to the report file to assist in interpreting the control keys. A refinement was added to the lane connectivity logic to recognize a single input lane to a single output lane as a thru movement regardless of the angle.

### ConvertTrips 6.0.1

A correction was made to the diurnal distribution function to account for the new Db\_Matrix logic.

### Router 6.0.4

MINIMIZE\_VEHICLE\_HOURS key was added to implement an iterative convergence method that identifies the combination factor that minimizes total vehicle hours of travel for each iteration. This is similar to a traditional equilibrium assignment approach.

### Router 6.0.5

The link gap calculation was reconfigured to make the comparison after the link volumes are combined and travel times are recalculated rather than based on the latest all-or-nothing paths. This makes the statistic more comparable to traditional assignment convergence statistics.

### ArcRider 6.0.1

A bug was fixed in saving the link ID to the link ridership shapefile. Notes fields were added to each shapefile when the NOTES\_AND\_NAME\_FIELDS is true.

### FileFormat 6.0.1

A bug in the string parsing logic was fixed.

### MatrixData 6.0.1

CONVERSION\_EQUIV\_FILE key was added to include a user-defined equivalence data in user program scripts.

### PathSkim 6.0.3

A Transit Driver file is now required for transit paths to enable trip length skims.

### NetPrep 6.0.2

A bug was fixed in the Route\_Mode\_Map key.

### NewFormat 6.0.2

VEHICLE\_FILE key was added to copy the vehicle type data from a Version 4 vehicle file to the Version 6 trip and plan files.

### Router 6.0.6

The binary heap template replaced the map-based process in the impedance sorting algorithm.