

TRANSIMS Version 4.0

August 1, 2006 Release

Change Log edited: 8/1/2006

General Notes:

SysLib

Activity, Trip and Performance data array and read services were added to the Demand Service interface. A key called DEMAND_FILE_FORMAT was added to set the default file format.

Matrix file and data array classes were created. An optional Type field was added to the default Household file processing. Age and Gender were added to the Population file and data classes.

Warning messages and data corrections were added to the Network Service when the Activity Location, Parking, Pocket Lane, Transit Stop, Lane Use, and/or Detector offsets are greater than the link length.

The methods and data items that used “Stop” to reference end time values were changed to “End” methods. This impacted several data and file classes in the Network Services, but helps to distinguish transit stops from time periods. References to these methods in several programs were also updated.

The Nodes method within the Plan File class was changed to “Path” to clarify its use when Link-based plans are used. The necessary change was made in several programs.

An Offset Data class was added to simplify the processing of Activity Location, Parking, and Stop offset processing in the ArcView-related programs.

The Copy_Fields method in the Db_Base class was enhanced to handle nested fields.

Changes were made to the Num_Records, Estimate_Records and File_Size methods to avoid duplicate record processing.

ConvertTrips 4.0.4

ConvertTrips was reorganized to utilize the new Demand Service interface. The Trip, Household, Population, and Vehicle files are now accessed in this way. The program also reads the Vehicle Type file to check the Vehicle Type and Sub Type parameters for each file group. The trip tables and diurnal distribution curves are read using the standard Db_File interface. The Version 3 option will create default definition files consistent with the original program. Trip table and trip time format options were added to permit the user to specify other file formats. The private data structures used by the program were separated into a Data subdirectory and converted from structures to classes.

The trip time interface was expanded to include multiple distribution curves and time of day constraints. The user can select a distribution curve for a given trip table using a selection script or a field name. The user can also specify multiple time period ranges for each trip table. Only time periods in the time period range will be selected from the trip time file. The time period share will automatically be normalized for the specified time range. Report options were added to enable the user to print the trip time scripts and user program stacks.

The RETURN_TRIP_OFFSET key was added to facilitate production-attraction trip table processing. If this key is specified, a return trip between the origin and destination is generated with a start time equal to the arrival time of the original trip plus the activity duration specified by this key. In this case the same household ID, person ID, and vehicle ID are used for both trips.

ArcPlan 4.0.0

ArcPlan was converted to Version 4.0. The program includes the offset logic implemented in ArcNet and generates paths with link shapes. It also works with Plan files in Binary and/or Link-based formats. Selections based on Link ID groups were also added. Node and Link selections are available for both Node-based and Link-based plans.

ArcNet 4.0.2

ArcNet was modified to use the new Offset Data classes. A correction was made to the merge pocket shape.

Router 4.0.11

Link-based plan files can now be generated for walk and bicycle modes.

LinkSum 4.0.6

A bug was fixed in writing the V/C ratio file.

NewFormat 4.0.1

Conversion of the Version 3 Population file to Version 4 Household and Population files was added. The Version 3 Survey Activity file was converted to the standard Activity file format. Minor changes to the Transit Driver interface were made for uniformity and consistency.

ActGen 4.0.0

ActGen was modified to create the output Activity File through the Demand Service interface. Survey Household, Population, and Activity files and data structures were added. Survey Type script processing and reporting were added. The Household and Survey Type scripts were made optional if the corresponding household files include a Type field. Household and Survey Type Summary reports were added. Survey household persons are matched to synthetic household persons.

Documentation

Documentation files were updated for the Router, Microsimulator, and ArcNet. New documents were generated for ArcPlan and ConvertTrips.