

# TransitNet Quick Reference

Version 4.0.17

## Revision History

1/8/2010 Edited by AECOM Consult, Inc.  
4/15/2010 Edited by RSG, Inc.

Syntax:

***TransitNet [-flag] [control\_file]***

Purpose:

1. Create or update transit network file from route header and nodes files.
2. Add transit-related activity locations, process links, and parking lots to the network files.

## Required Keys

|                             |                                 |
|-----------------------------|---------------------------------|
| NET_NODE_TABLE              | [net_directory] <i>filename</i> |
| NET_LINK_TABLE              | [net_directory] <i>filename</i> |
| NET_ACTIVITY_LOCATION_TABLE | [net_directory] <i>filename</i> |
| NET_PROCESS_LINK_TABLE      | [net_directory] <i>filename</i> |
| ROUTE_HEADER_FILE           | [net_directory] <i>filename</i> |
| ROUTE_NODES_FILE            | [net_directory] <i>filename</i> |
| NEW_ACTIVITY_LOCATION_TABLE | [new_directory] <i>filename</i> |
| NEW_PROCESS_LINK_TABLE      | [new_directory] <i>filename</i> |
| NEW_TRANSIT_STOP_TABLE      | [new_directory] <i>filename</i> |
| NEW_TRANSIT_ROUTE_TABLE     | [new_directory] <i>filename</i> |
| NEW_TRANSIT_SCHEDULE_TABLE  | [new_directory] <i>filename</i> |
| NEW_TRANSIT_DRIVER_TABLE    | [new_directory] <i>filename</i> |

## Optional Keys

|                          |  |
|--------------------------|--|
| TITLE                    | Text                                     |
| REPORT_FILE              | <i>Filename</i>                          |
| REPORT_FLAG              | FALSE {true/false/yes/no/1/0}            |
| MAX_WARNING_MESSAGES     | 100,000                                  |
| MAX_WARNING_EXIT_FLAG    | TRUE {true/false/yes/no/1/0}             |
| PROJECT_DIRECTORY        | <i>Pathname</i>                          |
| DEFAULT_FILE_FORMAT      | VERSION3 {(2)}                           |
| PARK_AND_RIDE_FILE       | [project_directory] <i>filename</i> (9)  |
| ZONE_EQUIVALANCE_FILE    | [project_directory] <i>filename</i> (10) |
| STOP_SPACING_BY_AREATYPE | 0,0,0,... meters {0 or 37.5..3200.0} (1) |
| TRANSIT_TIME_PERIODS     | None (3)                                 |

|                              |                                     |
|------------------------------|-------------------------------------|
| TRANSIT_TRAVEL_TIME_FACTOR   | 1.0, 1.0, 1.0, ... {0.5..3.0} (4)   |
| MINIMUM_DWELL_TIME           | 5 seconds {1..300} (5)              |
| INTERSECTION_STOP_TYPE       | NEARSIDE {NEARSIDE or FAR SIDE} (6) |
| INTERSECTION_STOP_OFFSET     | 10 meters {0..100} (6)              |
| TRANSIT_PROCESS_LINK_TIME    | 5 seconds {0..900} (7)              |
| RANDOM_NUMBER_SEED           | 0 {>= 0} (8)                        |
| NET_DIRECTORY                | <i>Pathname</i>                     |
| NET_PARKING_TABLE            | [net_directory]/filename            |
| NET_ZONE_TABLE               | [net_directory]/filename            |
| NET_LANE_CONNECTIVITY_TABLE  | [net_directory]/filename            |
| NET_TRANSIT_STOP_TABLE       | [net_directory]/filename            |
| NET_TRANSIT_ROUTE_TABLE      | [net_directory]/filename            |
| NET_TRANSIT_SCHEDULE_TABLE   | [net_directory]/filename            |
| NET_TRANSIT_DRIVER_TABLE     | [net_directory]/filename            |
| NEW_DIRECTORY                | <i>Pathname</i>                     |
| NEW_PARKING_TABLE            | [new_directory]/filename            |
| NET_DEFAULT_FORMAT           | [default_file_format] {(2)}         |
| NET_NODE_FORMAT              | [net_default_format] {(2)}          |
| NET_LINK_FORMAT              | [net_default_format] {(2)}          |
| NET_LANE_CONNECTIVITY_FORMAT | [net_default_format] {(2)}          |
| NET_PARKING_FORMAT           | [net_default_format] {(2)}          |
| NET_ACTIVITY_LOCATION_FORMAT | [net_default_format] {(2)}          |
| NET_PROCESS_LINK_FORMAT      | [net_default_format] {(2)}          |
| NET_TRANSIT_STOP_FORMAT      | [net_default_format] {(2)}          |
| NET_TRANSIT_ROUTE_FORMAT     | [net_default_format] {(2)}          |
| NET_TRANSIT_SCHEDULE_FORMAT  | [net_default_format] {(2)}          |
| NET_TRANSIT_DRIVER_FORMAT    | [net_default_format] {(2)}          |
| NEW_DEFAULT_FORMAT           | [default_file_format] {(2)}         |
| NEW_PARKING_FORMAT           | [new_default_format] {(2)}          |
| NEW_ACTIVITY_LOCATION_FORMAT | [new_default_format] {(2)}          |
| NEW_PROCESS_LINK_FORMAT      | [new_default_format] {(2)}          |
| NEW_TRANSIT_STOP_FORMAT      | [new_default_format] {(2)}          |
| NEW_TRANSIT_ROUTE_FORMAT     | [new_default_format] {(2)}          |
| NEW_TRANSIT_SCHEDULE_FORMAT  | [new_default_format] {(2)}          |
| NEW_TRANSIT_DRIVER_FORMAT    | [new_default_format] {(2)}          |

## Reports

|                     |                       |
|---------------------|-----------------------|
| TRANSITNET_REPORT_# | FARE_ZONE_EQUIVALENCE |
|---------------------|-----------------------|

## Notes

|    |   |
|----|---|
| 1  | The minimum stop spacing determines the number of stops that will be added to a given link as a function of area type and link length. Zero means that only one stop will be added to the link regardless of link length. The data are entered as a comma separated list of lengths in meters corresponding to area type codes (e.g., 100, 200, 300, ... = area type 1 = 100 meters, area type 2 = 200 meters, area type 3 = 300 meters, etc.)  |
| 2  | {VERSION3, BINARY, FIXED_COLUMN, COMMA_DELIMITED, SPACE_DELIMITED, TAB_DELIMITED, CSV_DELIMITED, DBASE, LANL, SQLITE3}  |
| 3  | Time of day break points for the time periods defined in the route header file. For example, 5:00, 7:00, 9:00, 15:00, 19:00, 22:00 implies that the route header file includes seven time periods and period 1 = 0:00..5:00, period 2 = 5:00..7:00, period 3 = 7:00..9:00, period 4 = 9:00..15:00, period 5 = 15:00..19:00, period 6 = 19:00..22:00, and period 7 = 22:00..24:00  |
| 4  | A travel time factor is available for each time period. The default value is 1.0. If the value is different from 1.0, the travel time is multiplied by the travel time factor to estimate the running time for the transit vehicle. The default travel time is calculated using the TIME or SPEED fields in the route nodes file. If these fields are not defined, the free flow speed of the link is used. Dwell time is added to this value to set the transit schedule for a given run. If the route header file includes TTIME fields for the overall route or each time period, the schedules are factored so that the total time of the run equals the TTIME value. |
| 5  | The minimum dwell time is applied to each stop on each route when a DWELL field is not included on the input route nodes file.  |
| 6  | Transit stops must be offset from intersections in TRANSIMS. This parameter determines if the stop is placed before or after the intersection. Nearside is before and farside is after. The intersection offset key defines the offset distance from the network node in meters.  |
| 7  | Each transit stop is connected to an activity location using a process link. If there is an activity location reasonably close to the stop, this activity location is used and new process links are created. Otherwise, a new activity location and two process links are created for the stop. The travel time on the stop access and egress links is defined by this key.  |
| 8  | A random number is used to set the start time for the first run in each time period if the OFFSET field in the route header file is coded as -1. The start time will be between 0 and HEADWAY offset from the beginning of the time period.   |
| 9  | The park-&-ride file includes a list of network nodes where park-&-ride lots will be added by the program. The lot will be located on a link entering the node that permits both walk and auto access. The new parking records will have the PARKRIDE type.   |
| 10 | By default, the fare zone assigned to each stop on each route will be equal to the value in the zone field for the activity locations attached to the link where the stop is located. The zone equivalence file converts these zone numbers to transit fare districts.  |