TransimsNet Quick Reference

Version 4.0.25

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

Syntax:

TransimsNet [-flag] [control_file]

Purpose:

1. Synthesize TRANSIMS network files from generic node and link information. Node, Link, Activity Location, Parking, Process Link, Lane Connectivity, and Pocket Lane files are generated by the program.
2. The program also generates Sign and Signal Warrant files that can be used as input to the IntControl program to synthesize the TRANSIMS Unsignalized Node, Signalized Node, Timing Plan, Phasing Plan, Detector and Signal Coordinator files.
3. Copy an existing network and update or delete network components associated with selected links or nodes.

Required Keys

NET_NODE_TABLE	[net_directory]*filename*
NET_LINK_TABLE	[net_directory]*filename*
NEW_NODE_TABLE	[new_directory]*filename*
NEW_LINK_TABLE	[new_directory]*filename*
NEW_POCKET_LANE_TABLE	[new_directory]*filename*
NEW_PARKING_TABLE	[new_directory]*filename*
NEW_ACTIVITY_LOCATION_TABLE	[new_directory]*filename*
NEW_PROCESS_LINK_TABLE	[new_directory]*filename*
NEW_LANE_CONNECTIVITY_TABLE	[new_directory]*filename*
NEW_SIGNALIZED_NODE_TABLE	[new_directory]*filename*
NEW_UNSIGNALIZED_NODE_TABLE	[new_directory]*filename*
MAXIMUM_ACCESS_POINTS	{1..20}
MINIMUM_SPLIT_LENGTHS	{0, 40..4000} (3)

Optional Keys

TITLE	Text
REPORT_FILE	*Filename*
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	*Pathname*
DEFAULT_FILE_FORMAT	VERSION3 {(2)}
NET_DIRECTORY	*Pathname*
NET_ACTIVITY_LOCATION_TABLE	[net_directory]*filename*
NET_PARKING_TABLE	[net_directory]*filename*
NET_PROCESS_LINK_TABLE	[net_directory]*filename*
NET_POCKET_LANE_TABLE	[net_directory]*filename*
NET_UNSIGNALIZED_NODE_TABLE	[net_directory]*filename*
NET_SIGNALIZED_NODE_TABLE	[net_directory]*filename*
NET_ZONE_TABLE	[net_directory]*filename*
NET_SHAPE_TABLE	[net_directory]*filename*
NET_TURN_PROHIBITION_TABLE	[net_directory]*filename*
NEW_DIRECTORY	*Pathname*
NEW_ZONE_TABLE	[new_directory]*filename*
NEW_SHAPE_TABLE	[new_directory]*filename*
NET_TURN_PROHIBITION_TABLE	[net_directory]*filename*
KEEP_NODE_LIST	[project_directory]*filename*
LINK_NODE_EQUIVALANCE	[project_directory]*filename*
POCKET_LENGTHS_FOR_FACILITY_# (1)	0.0, 0.0, 0.0… meters {0..2000} (3)
SIGNAL_WARRANT_FOR_AREATYPE_# (4)	*primary type, secondary type, signal type, rings* (5)
STOP_WARRANT_FOR_AREATYPE_# (4)	LOCAL {(6)}
FACILITY_TYPE_ACCESS_FLAGS (7)	0,0,0,1,1,1,1,1,0,0,0,0,0,0,0,0,0 {true/false/yes/no/1/0}
ACTIVITY_LOCATION_SIDE_OFFSET	15.0 meters {0..100}
CELL_SIZE	7.5 meters {4.0..9.0}
MINIMUM_LINK_LENGTH	37.5 meters {7.5..100.0}
MAXIMUM_LENGTH_TO_XY_RATIO	1.2 {1.0..2.0}
MAXIMUM_CONNECTION_ANGLE	120 degrees {90..180}
ADD_UTURN_TO_DEADEND_LINKS	FALSE {true/false/yes/no/1/0}
INTERSECTION_SETBACK_DISTANCE	0.0 meters {0..20}
FIRST_EXTERNAL_ZONE_NUMBER	0 {0..10000}
COLLAPSE_NODE_FLAG	FALSE {true/false/yes/no/1/0}
KEEP_ZONE_CONNECTORS_AS_LOCALS (10)	FALSE {true/false/yes/no/1/0}
REPLICATE_MPO_NETWORK (9)	FALSE {true/false/yes/no/1/0}
UPDATE_NODE_RANGE	none (8)
UPDATE_LINK_RANGE	none (8)
DELETE_NODE_RANGE	none (8)
DELETE_LINK_RANGE	none (8)
UPDATE_NODE_FILE	[project_directory]*filename*
UPDATE_LINK_FILE	[project_directory]*filename*
DELETE_NODE_FILE	[project_directory]*filename*

DELETE_LINK_FILE	[project_directory]*filename*
NET_DEFAULT_FORMAT	[default_file_format] {(2)}
NET_NODE_FORMAT	[net_default_format] {(2)}
NET_LINK_FORMAT	[net_default_format] {(2)}
NET_ZONE_FORMAT	[net_default_format] {(2)}
NET_ACTIVITY_LOCATION_FORMAT	[net_default_format] {(2)}
NET_PARKING_FORMAT	[net_default_format] {(2)}
NET_PROCESS_LINK_FORMAT	[net_default_format] {(2)}
NET_POCKET_LANE_FORMAT	[net_default_format] {(2)}
NET_UNSIGNALIZED_NODE_FORMAT	[net_default_format] {(2)}
NET_SIGNALIZED_NODE_FORMAT	[net_default_format] {(2)}
NET_SHAPE_FORMAT	[net_default_format] {(2)}
NET_TURN_PROHIBITION_FORMAT	[net_default_format] {(2)}
NEW_DEFAULT_FORMAT	[default_file_format] {(2)}
NEW_NODE_FORMAT	[new_default_format] {(2)}
NEW_LINK_FORMAT	[new_default_format] {(2)}
NEW_SHAPE_FORMAT	[new_default_format] {(2)}
NEW_ZONE_FORMAT	[new_default_format] {(2)}
NEW_POCKET_LANE_FORMAT	[new_default_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_LANE_CONNECTIVITY_FORMAT	[new_default_format] {(2)}
NEW_SIGNALIZED_NODE_FORMAT	[new_default_format] {(2)}
NEW_UNSIGNALIZED_NODE_FORMAT	[new_default_format] {(2)}
NEW_TURN_PROHIBITION_FORMAT	[new_default_format] {(2)}

Notes

1	The key group number (_#) refers to the facility type number where facility type codes are 1 = Freeway, 2 = Expressway, 3 = Principal Arterial, 4 = Major Arterial, 5 = Minor Arterial, 6 = Collector, 7 = Local, 8 = Frontage Road, 9 = Ramp, 10 = Bridge, 11 = Walkway, 12 = Bikeway, 13 = Busway, 14 = Lightrail, 15 = Heavyrail, 16 = Ferry, 17= External or Zone Connectors.
2	{VERSION3, BINARY, FIXED_COLUMN, COMMA_DELIMITED, SPACE_DELIMITED, TAB_DELIMITED, CSV_DELIMITED, DBASE, LANL, SQLITE3}
3	A key includes a list of values for each area type. The last value is used for all subsequent area types. (e.g., 100, 200, 300 means area type 1 = 100 meters, area type 2 = 200 meters, and area type 3..xx = 300 meters).
4	The key group number (_#) refers to the area type code number. These codes are not predefined.
5	The primary and secondary facility types are defines using one of the following text strings: FREEWAY, EXPRESSWAY or XPRESSWAY, PRINCIPAL, MAJOR or PRIARTER, MINOR or SECARTER, COLLECTOR, LOCAL, FRONTAGE, RAMP, and BRIDGE or OTHER. The signal type options include: ACTUATED or TIMED and the ring options include: SINGLE_RING or

	DUAL_RING.
6	The minimum facility types with four-way stops is defined using one of the following text strings: FREEWAY, EXPRESSWAY or XPRESSWAY, PRINCIPAL, MAJOR or PRIARTER, MINOR or SECARTER, COLLECTOR, LOCAL, FRONTAGE, RAMP, and BRIDGE or OTHER.
7	Determines the facility types that receive activity locations and parking lots. The facility order is: 1 = Freeway, 2 = Expressway, 3 = Principal Arterial, 4 = Major Arterial, 5 = Minor Arterial, 6 = Collector, 7 = Local, 8 = Frontage Road, 9 = Ramp, 10 = Bridge, 11 = Walkway, 12 = Bikeway, 13 = Busway, 14 = Lightrail, 15 = Heavyrail, 16 = Ferry, 17= External or Zone Connectors.
8	ID Range (e.g., 1000, 2000, 3000..3100)
9	If set to true, enables converting a traditional travel demand forecasting network with zone connectors to TRANSIMS. One activity location is inserted for each zone centroid in order to replicate the way a traditional network loads trips between centroids. (10)
10	If KEEP_ZONE_CONNECTORS_AS_LOCALS key is set to false, trips through the zone centroid are prohibited.