

# PlanSum (version 4.0.52)

## Revision History

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Created by Volpe Center

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Added example 4

The PlanSum program is used to:

1. Summarize the link demands generated by the Router,
2. Apply volume-delay equations to estimate link travel times,
3. Produce link volume, link delay, and turning movement files by time of day,
4. Produce zone or district trip tables and skim files by mode and time of day,
5. Summarize transit ridership demand by transit route, run, and stop,
6. Generate V/C ratio reports by link and link groups by time of day,
7. Create diurnal distributions of the start, end, and mid-trip times of each plan,
8. Expand travel statistics from survey plans to the total population,
9. Summarize transit transfer details, and/or
10. Calculate intrazonal skim values based on a nearest neighbor factor.
11. Update activity durations on a set of plans

**PlanSum** is a console-based program that runs in a command window on either Windows or Linux. The command syntax is:

```
PlanSum [-flag] [control_file] [partition]
```

The control\_file is the file name of an ASCII file that contains the control strings expected by the program. The control\_file is optional. If a file name is not provided, the program will prompt the user to enter a file name. The flag parameters are also optional. Any combination of the following flag parameters can be included on the command line:

-Q[uiet]	= execute without screen messages
-H[elp]	= show program syntax and control keys
-K[eyCheck]	= list unrecognized control file keys
-P[ause]	= pause before exiting
-N[oPause]	= never pause before exiting
-B[atch]	= execute in batch processing mode

The program automatically creates a printout file based on the control\_file name. If the file name includes an extension, the extension is removed and “.prn” is added. The printout file will be created in the current working directory and will overwrite an existing file with the same name.

## To Do

- Testing and further explanation of the transit-related parameters
- Describe the “Variance” output in the zone skim file

## Control File Examples

### EXAMPLE 1 CREATE LINK DELAY FILE

```

TITLE                Create plan summaries for router and plan select

PLAN_FORMAT          VERSION3
NODE_LIST_PATHS      false
# ---- Input Files ----

NET_DIRECTORY        network
NET_LINK_TABLE       Link.txt
NET_LANE_CONNECTIVITY_TABLE Lane_Connectivity.txt
NET_NODE_TABLE       Node.txt
NET_ACTIVITY_LOCATION_TABLE Activity_Location.txt
NET_PARKING_TABLE    Parking.txt
PLAN_FILE            8.TestBed.TimePlanA
PLAN_FORMAT          VERSION3

# ---- Output Files ----

NEW_LINK_DELAY_FORMAT      TAB_DELIMITED
NEW_LINK_DELAY_FILE       8.TestBed.Link_DelayMain.txt

# ---- Parameters ----

SUMMARY_TIME_INCREMENT    15

EQUATION_PARAMETERS_1     BPR, 0.40, 3.3, 0.75
EQUATION_PARAMETERS_3     BPR, 0.35, 3.0, 0.60

PLANSUM_REPORT_1         ALL_V/C_RATIOS_GREATER_THAN_1.5
CREATE_NOTES_AND_NAME_FIELDS YES

```

### EXAMPLE 2 WRITE SOME FILES AND REPORTS

```

TITLE                Create plan reports

PLAN_FORMAT          VERSION3
NODE_LIST_PATHS      false
# ---- Input Files ----

NET_DIRECTORY        network
NET_LINK_TABLE       Link.txt
NET_LANE_CONNECTIVITY_TABLE Lane_Connectivity.txt
NET_NODE_TABLE       Node.txt
NET_ACTIVITY_LOCATION_TABLE Activity_Location.txt
NET_PARKING_TABLE    Parking.txt
NET_PROCESS_LINK_TABLE Process_Link.txt
PLAN_FILE            8.TestBed.TimePlanA
PLAN_FORMAT          VERSION3
LINK_EQUIVALENCE_FILE Link_Equiv.txt

```

# ---- Output Files ----

NEW_LINK_DELAY_FORMAT	TAB_DELIMITED
NEW_LINK_DELAY_FILE	Link_DelayNew.txt
NEW_LINK_VOLUME_FILE	LinkVol.txt
NEW_TRIP_TIME_FILE	TripTime.txt
NEW_ZONE_SKIM_FILE	ZoneSkim.txt
NEW_TRIP_TABLE_FILE	TripTable.txt
NEW_TURN_MOVEMENT_FILE	TurnMvmtMainStreet.txt
TURN_NODE_RANGE	15,16,22,26

# ---- Parameters ----

EQUATION_PARAMETERS_1	BPR, 0.40, 3.3, 0.75
EQUATION_PARAMETERS_3	BPR, 0.35, 3.0, 0.60
PLANSUM_REPORT_1	TOP_100_V/C_RATIOS
PLANSUM_REPORT_2	LINK_GROUP_V/C_RATIOS_GREATER_THAN_2.0
PLANSUM_REPORT_3	PRINT_LINK_EQUIVALENCIES
PLANSUM_REPORT_4	PRINT_ZONE_EQUIVALENCIES
PLANSUM_REPORT_5	TRIP_TIME_REPORT
PLANSUM_REPORT_6	TRAVEL_SUMMARY_REPORT
CREATE_NOTES_AND_NAME_FIELDS	YES

### EXAMPLE 3 SELECT ONLY SOME HOUSEHOLDS AND WRITE SOME FILES

TITLE Summarize plans for households at activity location 39

PLAN\_FORMAT VERSION3  
 NODE\_LIST\_PATHS false  
 # ---- Input Files ----

NET_DIRECTORY	network
NET_LINK_TABLE	Link.txt
NET_LANE_CONNECTIVITY_TABLE	Lane_Connectivity.txt
NET_NODE_TABLE	Node.txt
NET_ACTIVITY_LOCATION_TABLE	Activity_Location.txt
NET_PARKING_TABLE	Parking.txt
PLAN_FILE	8.TestBed.TimePlanA
PLAN_FORMAT	VERSION3
HOUSEHOLD_LIST	HHActLoc39.txt

# ---- Output Files ----

NEW_LINK_DELAY_FORMAT	TAB_DELIMITED
NEW_LINK_DELAY_FILE	Link_Delay39.txt
NEW_PLAN_FILE	plan39.txt # Does nothing
NEW_LINK_VOLUME_FILE	LinkVol39.txt
LINK_EQUIVALENCE_FILE	LinkEquiv39.txt
#NEW_TRIP_TIME_FILE	TripTime.txt
NEW_ZONE_SKIM_FILE	ZoneSkim39.txt
NEW_TRIP_TABLE_FILE	TripTable39.txt
NEW_TURN_MOVEMENT_FILE	TurnMvmt39.txt

```
# ---- Parameters ----

EQUATION_PARAMETERS_1      BPR, 0.40, 3.3, 0.75
EQUATION_PARAMETERS_3      BPR, 0.35, 3.0, 0.60

PLANSUM_REPORT_1           TRIP_TIME_REPORT
CREATE_NOTES_AND_NAME_FIELDS      YES
```

## EXAMPLE 4 UPDATE PLAN ACTIVITY DURATIONS

```
TITLE                                Update plan activity durations

PLAN_FORMAT      VERSION3
NODE_LIST_PATHS      false
# ---- Input Files ----

NET_DIRECTORY      network
NET_LINK_TABLE      Link.txt
NET_LANE_CONNECTIVITY_TABLE      Lane_Connectivity.txt
NET_NODE_TABLE      Node.txt
NET_ACTIVITY_LOCATION_TABLE      Activity_Location.txt
NET_PARKING_TABLE      Parking.txt
NET_PROCESS_LINK_TABLE      Process_Link.txt
PLAN_FILE      8.TestBed.TimePlanA
PLAN_FORMAT      VERSION3
LINK_EQUIVALENCE_FILE      Link_Equiv.txt
LINK_DELAY_FORMAT      TAB_DELIMITED
LINK_DELAY_FILE      Link_DelayNew.txt # Used as an input!

# ---- Output Files ----

NEW_PLAN_FILE      8.TestBed.TimePlanNew.txt
```

## Control File Parameters

Control parameters are defined using a control key followed by a string or number. The control parameters can be specified in any order. If a given key is defined more than once, the last instance of the key is used. The default value for each key is 0 or “Null” unless otherwise indicated below or in the Quick Reference (QR) document for this program. Null parameters do not need to be included in the file. Note that comment lines or extraneous keys can be included in the file by preceding the line with the “#” symbol. These lines will be ignored by the program.

The keys recognized by the **PlanSum** program are listed below. These keys can be defined in a variety of different ways to perform different tasks. The first key is required; the others are optional.

**PLAN\_FILE**

The plan file key is required. It specifies the name of the TRANSIMS plan file within the project directory. The full path and file name for the plan file is constructed by appending the value of this key to the value of the PROJECT\_DIRECTORY key.

**TITLE**

Any text string can be used on this line. This text is printed on the top of each output page.

**REPORT\_FILE**

The report file name is optional. If a file name is not provided, the program automatically creates a report file name based on the input control file name. The report file will overwrite an existing file with the same name if the Report Flag key is False or not specified.

**REPORT\_FLAG**

The report flag key is optional. Its default value is FALSE. If it is specified as Yes or True, the report file or default printout file will be opened in “Append” mode rather than “Create” mode. This permits the user to consolidate the output of several programs into a single report file.

**PROJECT\_DIRECTORY**

The project directory key is not required. If it is specified, it is added to all non-network file names required by the program. If it is not specified, all non-network file names should fully specify the file path.

**DEFAULT\_FILE\_FORMAT**

Default format for files other than network files. Default is VERSION3. Other possible values include BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, CSV\_DELIMITED, DBASE, LANL and SQLITE3.

**MAX\_WARNING\_MESSAGES**

When the program generates a warning message, a counter is incremented and the total number of warning messages is reported and a warning return coded (2) is set at the end of the execution. By default the program prints up to 100,000 warning messages to the print-out file. If more than 100,000 warning messages are sent, the program stops printing additional messages to the file or terminates the program with an error message based on the MAX\_WARNING\_EXIT\_FLAG. This parameter enables the user to modify the default warning limit.

**MAX\_WARNING\_EXIT\_FLAG**

If the maximum number of warning messages is exceeded, this flag directs the program in what to do. If the flag is TRUE (the default), the program is terminated with an error message about the warning messages. If the flag is FALSE, the program continues execution, but no additional warning messages are sent to the screen or written to the printout file. The warning message counter continues to count the messages and reports the total at the end of the execution.

**TRAVELER\_SCALING\_FACTOR**

The traveler scaling factor key enables the user to factor the input travelers by a scaling factor. The default value is 1.

**NET\_DIRECTORY**

The network directory key is not required. If it is specified, it is added to all network table names. If it is not specified, the network table names should fully specify the file path.

**NET\_NODE\_TABLE**

The node table key is required. It specifies the name of the TRANSIMS node file within the network directory. The full path and file name for the node table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_LINK\_TABLE**

The link table key is required. It specifies the name of the TRANSIMS link file within the network directory. The full path and file name for the link table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_PARKING\_TABLE**

The network parking table key is required. It specifies the name of the TRANSIMS parking table file within the network directory. The full path and file name for the parking table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_ACTIVITY\_LOCATION\_TABLE**

The activity location table key is required. It specifies the name of the TRANSIMS activity location file within the network directory. The full path and file name for the activity location table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key. The activity location file is a primary input file for the ActGen process. It should contain one or more data fields used as the attraction weight for the activity location in the location choice model.

**NET\_PROCESS\_LINK\_TABLE**

The process link table key specifies the name of the TRANSIMS process file within the network directory. The full path and file name for the process link table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key. The process link data are used to assign vehicles to parking lots attached to activity locations.

**NET\_LANE\_CONNECTIVITY\_TABLE**

The network lane connectivity table key is required. It specifies the name of the TRANSIMS lane connectivity file within the network directory. The full path and file name for the lane connectivity table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_LANE\_USE\_TABLE**

The network lane use table key is optional. It specifies the name of the TRANSIMS lane-use file within the network directory. The full path and file name for the lane-use table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_TRANSIT\_STOP\_TABLE**

The transit stop table is optional. If the stop table is not provided, transit paths cannot be built. This key specifies the name of the TRANSIMS transit stop file within the network directory. The full path and file name for the transit stop table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_TRANSIT\_ROUTE\_TABLE**

The transit route table is required if the transit stop file is provided. This key specifies the name of the TRANSIMS transit route file within the network directory. The full path and file name for the transit route table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_TRANSIT\_SCHEDULE\_TABLE**

The transit schedule table is required if the transit stop file is provided. This key specifies the name of the TRANSIMS transit schedule file within the network directory. The full path and file name for the transit schedule table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**NET\_TRANSIT\_DRIVER\_TABLE**

The transit driver table is required if the transit stop file is provided. This key specifies the name of the TRANSIMS transit driver file within the network directory. The full path and file name for the transit driver table is constructed by appending the value of this key to the value of the NET\_DIRECTORY key.

**CREATE\_NOTES\_AND\_NAME\_FIELDS**

Appears in -h, not in quick reference.

**NET\_DEFAULT\_FORMAT**

Default format for network files. The default file format is set by DEFAULT\_FILE\_FORMAT. Other options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, CSV\_DELIMITED, DBASE, LANL, and SQLITE3.

**NET\_NODE\_FORMAT**

The node file format key enables the user to specify the input format for the node file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_LINK\_FORMAT**

The link file format key enables the user to specify the input format for the link file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_PARKING\_FORMAT**

The parking file format key enables the user to specify the input format for the parking file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_ACTIVITY\_LOCATION\_FORMAT**

The activity location file format key enables the user to specify the input format for the activity location file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_PROCESS\_LINK\_FORMAT**

The process link file format key enables the user to specify the input format for the process link file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_LANE\_USE\_FORMAT**

The lane use file format key enables the user to specify the input format for the lane use file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_LANE\_CONNECTIVITY\_FORMAT**

The lane connectivity file format key enables the user to specify the input format for the lane connectivity file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_TRANSIT\_STOP\_FORMAT**

The transit stop file format key enables the user to specify the input format for the transit stop file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_TRANSIT\_ROUTE\_FORMAT**

The transit route file format key enables the user to specify the input format for the transit route file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**NET\_TRANSIT\_SCHEDULE\_FORMAT**

The transit schedule file format key enables the user to specify the input format for the link file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.



**NET\_TRANSIT\_DRIVER\_FORMAT**

The transit driver file format key enables the user to specify the input format for the transit driver file. The default file format is set by NET\_DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**LINK\_DELAY\_FILE**

The link delay file key is optional. If the key is provided, the program uses the information in the link delay file to initialize the link volumes and travel times for each time period. The header record in the link delay file is used to determine the size of each time period. The time periods are typically 15 minutes long. If a link delay file is not provided (or the key is "NULL"), free flow speeds are used for all times of day. Free flow speeds are also used for all links and time periods not included in the link delay file.

An input link delay file can be created by the PlanSum or Microsimulator programs. The following Microsimulator configuration keys are used to create the file:

OUTPUT_SUMMARY_FILE_1	LinkDelay
OUTPUT_SUMMARY_FILE_1	TAB_DELIMITED
OUTPUT_SUMMARY_INCREMENT_1	900
OUTPUT_SUMMARY_START_TIME_1	0
OUTPUT_SUMMARY_END_TIME_1	86400
OUTPUT_SUMMARY_TURN_FLAG_1	YES

These commands will create 15-minute (i.e., 900 second) volume and travel time summaries for 24 hours (i.e., 0-86400 seconds) for each link in the network. If the file format is not VERSION3, the volumes and travel times for each turning movement are generated. The turning penalties will be used by the Router during the highway path building process. The full path and file name is constructed by appending the value of this key to the value of the PROJECT\_DIRECTORY key.

An input Link\_Delay\_File is not usually used in PlanSum, except where PlanSum is being used to update the activity durations in a set of plans (Example 4).

**VEHICLE\_TYPE\_FILE**

The vehicle type file is optional and is used to map vehicle types and sub-types in the vehicle file to specific lane or link use restrictions. The full path and file name is constructed by appending the value of this key to the value of the PROJECT\_DIRECTORY key.

**NEW\_LINK\_DELAY\_FILE**

The new link delay file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the output link delay file created by the program. For an explanation of its fields, see the definition of Summary file in Microsimulator Output Files.

LINK	DIR	START_TIME	END_TIME	AVG_VOLUME	IN_VOLUME	OUT_VOLUME	AVG_SPEED	AVG_TIME	AVG_DELAY	AVG_DENSITY	MAX_DENSITY	TIME_RATIO	AVG_QUEUE	MAX_QUEUE	NUM_FAIL	VMT	VHT	NCONNECT
OUT_LINK	OUT_DIR	OUT_TURN	OUT_TIME															
1	0	8:00	8:15	203	203	203	2.39	83.8	67.1	1.13	1.13	5.02	0	0	0	40600	17011.4	2
4	0	66	83.8															
7	0	132	83.8															
1	0	8:15	8:30	234	234	234	1.68	119.4	102.7	1.3	1.3	7.15	0	0	0	46800	27939.6	2
4	0	79	119.4															
7	0	156	119.4															
1	0	8:30	8:45	225	225	225	1.85	108	91.3	1.25	1.25	6.47	0	0	0	45000	24300	2
4	0	75	108															
7	0	150	108															
1	0	8:45	9:00	217	217	217	2.03	98.6	81.9	1.21	1.21	5.9	0	0	0	43400	21396.2	2
4	0	71	98.6															
7	0	147	98.6															
1	0	9:00	9:15	21	21	21	11.9	16.8	0.1	0.12	0.12	1.01	0	0	0	4200	352.8	2
4	0	9	16.8															
7	0	15	16.8															
1	1	8:00	8:15	195	195	195	2.62	76.2	59.5	1.08	1.08	4.56	0	0	0	39000	14859	0
1	1	8:15	8:30	225	225	225	1.85	108	91.3	1.25	1.25	6.47	0	0	0	45000	24300	0

### NEW\_RIDERSHIP\_FILE

The new ridership file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the output ridership file created by the program. The ridership file summarizes the boardings and alightings at each stop on each route based on the scheduled and actual departure time for each run. This key is optional, but if included, transit network files must also be supplied in order to produce ridership output file data. The fields contained in the new ridership file are listed and described in the table below.

## Ridership File Fields

FIELD	Description	Use	Value
MODE	Mode string	Optional	16 characters (1)
ROUTE	Route number	Required	Integer {1..2,147,483,647}
RUN	Run number	Required	Integer {1..2,147,483,647}
STOP	Stop number	Required	Integer {1..2,147,483,647}
SCHEDULE	Scheduled departure time	Optional	16 characters (2)
TIME	Actual departure time	Optional	16 characters (2)
BOARD	Number of persons boarding at the stop	Required	Integer {0..2,147,483,647}
ALIGHT	Number of persons alighting at the stop	Required	Integer {0..2,147,483,647}
LOAD	Number of persons in the vehicle leaving the stop	Optional	Integer {0..2,147,483,647}
FACTOR	Ratio of the number of people in the vehicle to the vehicle capacity	Optional	Floating point (2 decimal)

### Notes:

1. TOTAL, PATH\_BUILDING, TIME\_SCHEDULE, ZERO\_NODE, VEHICLE\_TYPE, PATH\_CIRCUITY, TRAVEL\_MODE, VEHICLE\_ACCESS, WALK\_DISTANCE, WAIT\_TIME, WALK\_ACCESS, PATH\_SIZE, PARK-&-RIDE\_LOT, BIKE\_DISTANCE, DEPARTURE\_TIME, ARRIVAL\_TIME, LINK\_ACCESS, LANE\_CONNECTIVITY, PARKING\_ACCESS, LANE\_MERGING, LANE\_CHANGING, TURNING\_SPEED, POCKET\_MERGE, VEHICLE\_SPACING, TRAFFIC\_CONTROL, ACCESS\_RESTRICTION, TRANSIT\_STOP, ACTIVITY\_LOCATION, VEHICLE\_PASSENGER, VEHICLE\_LOCATION, KISS & RIDE\_LOT, VEHICLE\_ID, DATA\_SORT, WALK\_LOCATION, BIKE\_LOCATION, TRANSIT\_LOCATION, PERSON\_MATCH
2. NOON, MIDNIGHT, [d@hh:mm:ss.xAM/PM](#), [d@hh:mm:ss.x](#), d@hh:mm, d@hh:mmAM/PM, [d@hh.xxx](#), d@ssssss, hh:mm:ss, hh:mm:ss\_AM/PM, hh:mm, hh:mm.x, hh.xxx, ssssss, wwwhh:mm where www = SUN, MON, TUE, WED, THU, FRI, SAT, WKE, WKD, ALL

### LINK\_DELAY\_FORMAT

Appears in -h, not in quick reference.

The link delay format key enables the user to specify the input format for the link volume file. The default file format is set by DEMAND\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

### VEHICLE\_TYPE\_FORMAT

The vehicle type format key enables the user to specify the input format for the vehicle type file. The default file format is set by DEMAND\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

### NEW\_LINK\_DELAY\_FORMAT

The link delay format key enables the user to specify the output format for the link volume file. The default file format is set by DEMAND\_FILE\_FORMAT. The format options include

VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

#### **NEW\_RIDERSHIP\_FORMAT**

The ridership format key enables the user to specify the output format for the ridership file. The default file format is set by DEMAND\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

#### **SORT\_VEHICLES**

Appears in -h, not in quick reference.

#### **DEMAND\_FILE\_FORMAT**

The demand file format key can be used to change the default file format. The default format is VERSION3; a tab delimited file compatible with the TRANSIMS Version 3.x software. Other options include BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, CSV\_DELIMITED, DBASE, LANL, and SQLITE3.

#### **MAX\_LINK\_DELAY\_ERRORS**

Appears in -h, not in quick reference.

#### **PLAN\_FORMAT**

The plan format key is optional. If provided, it defines the file format for the input plan file. The default value is VERSION3 (unformatted text) format. This parameter enables the user to input plans in BINARY format.

#### **NODE\_LIST\_PATHS**

The node list paths key is optional and when provided specifies the way the path is identified in the input plan file. The key is “true” by default. This means that the input plans will include a list of the node ID numbers along the travel path. If the key is “false”, the program interprets the path as a list of link ID numbers. If the first character of the key is “0”, “N”, “n”, “F”, or “f”, the key is interpreted as “false”.

#### **HOUSEHOLD\_LIST**

The household list file is optional. If it is not provided, activities will be generated for all households in the household file. If it is provided, the key is appended to the value of the PROJECT\_DIRECTORY key to identify the full path to one or more household list files. A household list file is a simple list of the household ID numbers that will be processed. A sample household list is shown below.

```
3
20
32
49
100
120
```

The household list key can be the path to a specific file or the root path to a group of partitioned files. If the command line includes a partition parameter, the program will add “.t\*” to the household list key. If the partition number is “0”, the household list will include the “tAA” extension. If the partition number is “1”, the “tAB” extension is used....

### HOUSEHOLD\_PERSON\_COUNT

This file provided a replication count by household and person to generated weighted summary statistics for routed survey activity files.

### SUMMARY\_TIME\_PERIODS

Defaults to All time periods. A Time Range (e.g., 0:00..6:00, 18:00..23:00) can be entered.

### SUMMARY\_TIME\_INCREMENT

Defaults to 0 minutes (Zero is used to process each time period as one increment), with a range of 0 to 240 minutes.

### NEW\_PLAN\_FILE

The new plan file key is optional. When appended to the PROJECT\_DIRECTORY key, it specifies the file name for the output plan file created by the program. If the key is not provided, plans will be built but not saved. If the command line includes a partition parameter, the program will add “.t\*” to this key. If the partition number is “0”, the “tAA” extension is added. If the partition number is “1”, the “tAB” extension is added.

### NEW\_LINK\_VOLUME\_FILE

The new link volume file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the output link volume file created by the program. An example of a link volume file appears below. In the example below, the link volumes are in 15-minute increments (e.g., the trips from 8:00 – 8:15 are in the 8:15 bucket.

LINK	ANODE	BNODE	AB_000_015	...	AB_800_815	AB_815_830	AB_830_845	AB_845_900	AB_900_915	...	BA_800_815	BA_815_830	BA_830_845	BA_845_900	BA_900_915	...	BA_2345_2400
1	12	22	0	...	0	0	0	0	0	...	0	0	0	0	0	...	0
2	10	24	0	...	0	0	0	0	0	...	0	0	0	0	0	...	0
3	10	21	0	...	0	0	0	0	0	...	0	0	0	0	0	...	0
4	22	23	0	...	23	23	18	19	1	...	0	0	0	0	0	...	0
5	23	24	0	...	23	20	21	19	1	...	0	0	0	0	0	...	0
6	25	23	0	...	0	0	0	0	0	...	0	0	0	0	0	...	0
7	22	15	0	...	0	0	0	0	0	...	24	22	18	19	1	...	0
8	24	28	0	...	23	20	20	20	1	...	0	0	0	0	0	...	0
...				...						...						...	
22	15	17	0	...	0	0	0	0	0	...	24	23	17	19	1	...	0

**NEW\_LINK\_VOLUME\_FORMAT**

The link volume format key enables the user to specify the output format for the link volume file. The default file format is set by DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

**EQUATION\_PARAMETERS\_#**

The equation parameters key is optional. A volume-delay equation is used by the link delay updates. The “#” at the end of the key refers to the facility type. # equals facility type code (1 = freeway, 2 = expressway, 3 = principal arterial, etc.)

The facility types are:

1	FREEWAY
2	EXPRESSWAY
3	PRINCIPAL
4	MAJOR
5	MINOR
6	COLLECTOR
7	LOCAL
8	FRONTAGE
9	RAMP
10	BRIDGE

For example, if only EQUATION\_PARAMETERS\_1 and EQUATION\_PARAMETERS\_3 are specified, EQUATION\_PARAMETERS\_1 will be used for Freeways and Expressways, and EQUATION\_PARAMETERS\_3 will be used for other facility types.

Each key requires four or five values. The first is the functional type code. Four options are currently available: BPR, BPR\_PLUS (or BPR+), EXPONENTIAL (or EXP), and CONICAL (or CON). These are followed by the up to four parameters as floating point numbers separated by a comma. The BPR function default values are 0.15, 4.0, and 0.75. The BPR equation for computing the link travel time is:

$$t = t_0 * (1 + (\alpha * (\text{Volume} / \text{Capacity})^{\text{Beta}}))$$

Where

$$t = \text{LoadedTravelTime(seconds)}$$

$$t_0 = \text{BaseTravelTime(seconds)}$$

$$\alpha = \text{BPR "A" parameter} = 0.15$$

$$\text{Beta} = \text{BPR "B" parameter} = 4.00$$

$$\text{Volume} = \text{Volume on the link in a given time period}$$

$$\text{Capacity} = \text{Adjusted Capacity of a link in a given time period}$$

Capacity of the link for a given time period is estimated as follows:

$$Capacity = BPRFactor * HourlyCapacity * (TimeIncrement / 3600)$$

Where

$$BPRFactor = BPR \text{ "C" parameter} = 0.75$$

$$TimeIncrement = TimePeriod \text{ (in seconds)}$$

If the BPR Plus option is selected, a fourth parameter can be provided. This parameter represents the minimum travel speed that can result from the calculation. If the fourth parameter is not provided, it will default to 1.0 meters per second. The value must be greater than 0.0 and less than or equal to 7.0 meters per second.

The Exponential function is of the form:

$$delay = \min(\alpha * e^{\beta * v / c}, \chi)$$

where *delay* is represented as minutes per kilometer. This value would therefore be multiplied by the link length and added to the free flow travel time.

The Conical function is of the form:

$$t_v = t_0 \left( -\beta - \alpha(1 - v/c) + \sqrt{\alpha^2(1 - v/c)^2 + \beta^2} \right)$$

Where

$$\beta = \frac{2\alpha - 1}{2\alpha - 2}$$

In other words, the function takes only one parameter  $\alpha$ . Values between 4 and 10 are typically used for different facility types.

#### **LINK\_EQUIVALENCE\_FILE**

The new link equivalence file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the link equivalence file used by the program. It enables groups of links to be summarized in the output. A sample file is as follows:

CUTLINE INDEX LINK\_LIST

1	0	I-90
1	1	8, 9
2	0	Eastbound Roads
2	1	8, -12

- The first column (CUTLINE) is the link group identifier
- The second is an index

- The third column is either the name of the outline (e.g., I-90) or the list of links that comprise the outline (8,9)

### NEW\_TRIP\_TIME\_FILE

The new trip time file is appended to the PROJECT\_DIRECTORY key to specify the file name for outputting the distribution of trip travel times by mode and origin and destination purpose. The number of trips or tour legs in 60 second increments of trip length is saved to the tab-delimited text file. In the example below, the trips are in 15-minute increments (e.g., the trips from 8:00 – 8:15 are in the 8:15 bucket).

PERIOD	INPUT_START	COMPARE_START	START_DIFF	INPUT_END	COMPARE_END	END_DIFF
8:00	0	0	0	0	0	0
8:15	2336	2336	0	1911	1869	-15
8:30	2354	2354	0	2328	2340	-17
8:45	2355	2355	0	2346	2328	-15
9:00	2353	2353	0	2327	2303	-19
9:15	2	2	0	488	560	-53

### NEW\_ZONE\_SKIM\_FILE

The new zone skim file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the output zone skim file created by the program. An example file appears below. In it, the time interval is the 15 minute interval (for example, interval 33 is 8:15 AM). The TIME and VARIANCE are in seconds.

ORG	DES	MODE	INTERVAL	TIME	COUNT	VARIANCE
1	11	1	33	246.000000	23	126.000000
1	11	1	34	257.650000	20	137.650000
1	11	1	35	248.761905	21	128.761905
1	11	1	36	257.000000	19	137.000000
1	11	1	37	231.000000	1	111.000000

### NEW\_ZONE\_SKIM\_FORMAT

The zone skim format key enables the user to specify the output format for the zone skim file. The default file format is set by DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

### SKIM\_MODE\_SELECTION

The trip mode selection key is optional and possible values are 1 through 14. The trip mode selection options include:

- 1 Walk
- 2 Drive
- 3 Transit



- 4 Transit with Rail Bias
- 5 Park-&-Ride Outbound
- 6 Park-&-Ride Inbound
- 7 Bicycle
- 8 Magic Move
- 9 School Bus
- 10 Two Person Carpool
- 11 Three Person Carpool
- 12 Four Person Carpool
- 13 Kiss-&-Ride Outbound
- 14 Kiss-&-Ride Inbound

**SKIM\_TOTAL\_TIME**

The default value is FALSE. Possible values are true/false/yes/no/1/0. By default, the zone skim file contains travel times by mode (walk, wait, drive, transit, other). If the total time key is true, a single time field is included in the output file with the total of the mode travel times. By default, the zone skim file also includes the travel cost, but not the travel distance. If the trip length key is true, the output file will include a trip length field.

**SKIM\_TRIP\_LENGTH**

The default value is FALSE. Possible values are true/false/yes/no/1/0. By default, the zone skim file contains travel times by mode (walk, wait, drive, transit, other). If the total time key is true, a single time field is included in the output file with the total of the mode travel times. By default, the zone skim file also includes the travel cost, but not the travel distance. If the trip length key is true, the output file will include a trip length field.

**NEAREST\_NEIGHBOR\_FACTOR**

The default value is 0.0 (disabled). Possible values range from 0.01 to 1.0. By default, the intrazonal skims are based on the travel between origin and destination activity locations within the same zone. If only one activity location per zone is included plan file, all intrazonal values will be zero. This key permits the user to estimate the intrazonal values as a fraction of the travel times, distances, and costs to the nearest neighboring zone.

**NEW\_TRIP\_TABLE\_FILE**

The new trip table file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the output trip table file created by the program.

If the trip table format is not specified and a Definition file is not found, the program assumes the file is in Version 3 format. The default Version 3 format is a tab-delimited text file with three integer data fields and no header record. The first field is the origin zone number, the second field is the destination zone number, the third field is the time period (in 15-minute intervals since 00:00, so the period 33 corresponds to 8:15 AM), and the fourth field is the number of trips.

ORG	DES	PERIOD	DATA
1	11	33	23
1	11	34	20
1	11	35	21

1	11	36	19
1	11	37	1

**NEW\_TRIP\_TABLE\_FORMAT**

The new trip table format key enables the user to specify the output format for the trip table file. The default file format is set by DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

This key is only used if a Definition file is not found. It is primarily used to override the default Version 3 processing and have the program construct a Definition file based on the file header and field types.

**TRIP\_MODE\_SELECTION**

The trip mode selection key is optional and possible values range from 1 to 14. The trip mode selection options include:

- 1 Walk
- 2 Drive
- 3 Transit
- 4 Transit with Rail Bias
- 5 Park-&-Ride Outbound
- 6 Park-&-Ride Inbound
- 7 Bicycle
- 8 Magic Move
- 9 School Bus
- 10 Two Person Carpool
- 11 Three Person Carpool
- 12 Four Person Carpool
- 13 Kiss-&-Ride Outbound
- 14 Kiss-&-Ride Inbound

**ZONE\_EQUIVALENCE\_FILE**

The zone equivalence file aggregates trips or skim values into summary districts.

The zone equivalence file is required for the trip adjustment factors. The key specifies the name of the file that defines a group of zones. Zone Groups typically represent large geographic areas or governmental entities (i.e., cities and counties). Each zone may only be associated with one Zone Group. The software generates warning messages if a zone is used more than once or appears to be missing from the sequence of zone numbers.

The zone equivalence file is a tab, space, or comma-delimited ASCII file with special format rules. A sample equivalence file is shown below.

```

1 0  Portland CBD - 1
1 1  1..16
2 0  West Suburbs - 2
2 1  79..307, 1248..1253
3 0  Southwest Suburbs - 3
3 1  308..403, 931..933

```

```

4 0 Southeast Suburbs - 4
4 1 404..557, 934..943, 1254..1258
5 0 East Portland - 5
5 1 561..563, 714..721, 731..738, 763..929, 949..961, 963..969
6 0 East Suburbs - 6
6 1 558..560, 564..713, 722..730, 739..762, 1259..1260
7 0 West Portland - 7
7 1 17..78, 930, 944..948, 962, 1247
8 0 Clark County - 8
8 1 970..1246

```

If the file contains a header record, it is ignored by the software. The first integer on each subsequent record is the district or zone group number. This number is followed by an index number that is used to associate multiple records with a given district. If the index number is zero, the software interprets everything that follows the index number as the district label. The first 25 characters of the label are printed in reports.

If the index number is not zero, the values that follow are interpreted as a range of zone numbers. Individual zone numbers and ranges of zone numbers can be specified on a given record. A range of zone numbers is specified using the first and last number in the sequence connected by two or more periods. For example, “79..307” represents all of the zone numbers between 79 and 307.

#### **NEW\_TURN\_MOVEMENT\_FILE**

The new turn movement file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the output turn movement file created by the program. An excerpt appears below.

NODE	IN_LINK	OUT_LINK	START	END	VOLUME
15	22	7	8:00	8:15	24
22	7	4	8:00	8:15	23
23	4	5	8:00	8:15	23
24	5	8	8:00	8:15	23
28	8	17	8:00	8:15	22
30	17	15	8:00	8:15	21
15	22	7	8:15	8:30	22
22	7	4	8:15	8:30	23
23	4	5	8:15	8:30	20
24	5	8	8:15	8:30	20
28	8	17	8:15	8:30	19
30	17	15	8:15	8:30	20

#### **NEW\_TURN\_MOVEMENT\_FORMAT**

The turn movement format key enables the user to specify the output format for the turn movement file. The default file format is set by DEFAULT\_FILE\_FORMAT. The format options include VERSION3, BINARY, FIXED\_COLUMN, COMMA\_DELIMITED, SPACE\_DELIMITED, TAB\_DELIMITED, DBASE, and SQLITE3.

#### **TURN\_NODE\_RANGE**

This key specifies the turning node ID range. The default value is All. A range can be specified using the format of 0..[node ID], a single value such as 1000 or 2000, or a different range (e.g., 3000..3100).

### **STOP\_EQUIVALENCE\_FILE**

The new stop equivalence file key is appended to the PROJECT\_DIRECTORY key to specify the file name for the output stop equivalence file created by the program.

### **OUTPUT\_ALL\_TRANSIT\_STOPS**

The default value is FALSE. Possible values are true/false/yes/no/1/0. For controlling the additional output of transit stop records in the new ridership file that have no passenger boardings and alightings at transit stops. These records may be useful to note the scheduled and estimated arrivals at such transit stops.

### **PLANSUM\_REPORT\_#**

Report Options:

TOP\_100\_V/C\_RATIOS  
 ALL\_V/C\_RATIOS\_GREATER\_THAN\_\*  
 LINK\_GROUP\_V/C\_RATIOS\_\*  
 PRINT\_LINK\_EQUIVALENCIES  
 PRINT\_ZONE\_EQUIVALENCIES  
 PRINT\_STOP\_EQUIVALENCIES  
 TRANSIT\_RIDERSHIP\_SUMMARY  
 TRANSIT\_STOP\_SUMMARY  
 TRANSIT\_TRANSFER\_SUMMARY  
 TRANSIT\_TRANSFER\_DETAILS  
 TRANSIT\_STOP\_GROUP\_SUMMARY  
 TRANSIT\_PASSENGER\_SUMMARY  
 TRANSIT\_LINK\_GROUP\_SUMMARY  
 TRIP\_TIME\_REPORT  
 TRAVEL\_SUMMARY\_REPORT

Notes:

1. The “#” is replaced by 1, 2, 3, etc.
2. The “\*” is replaced by a floating point V/C ratio criteria (e.g., \_GREATER\_THAN\_1.2).

Example 2, below on page 22, contains examples of reports.





```

Network Directory = network
Node File = network\Node.txt
Node File Format = TAB_DELIMITED
Link File = network\Link.txt
Link File Format = TAB_DELIMITED
Lane Connectivity File = network\Lane_Connectivity.txt
Lane Connectivity File Format = TAB_DELIMITED
Parking File = network\Parking.txt
Parking File Format = TAB_DELIMITED
Activity Location File = network\Activity_Location.txt
Activity Location File Format = TAB_DELIMITED
Process Link File = network\Process_Link.txt
Process Link File Format = TAB_DELIMITED

```

```
New Link Delay File = Link_DelayNew.txt
New Link Delay File Format = TAB DELIMITED
```

Equation Parameters 1 = BPR, A=0.40, B=3.30, C=0.75  
Equation Parameters 3 = BPR, A=0.35, B=3.00, C=0.60

New Link Volume File = LinkVol.txt

Link Equivalence File = Link Equiv.txt

New Trip Time File = TripTime.txt

New Zone Skim File = ZoneSkim.txt

New Trip Table File = TripTable.txt

New Turn Movement File = TurnMvmtMainStree.txt  
Turn Node Range = 15,16,22,26

```
PlanSum Reports:  1. TOP_100_V/C_RATIOS
                  2. LINK_GROUP_V/C_RATIOS_GREATER_THAN_2.0
                  3. PRINT_LINK_EQUIVALENCIES
                  4. PRINT_ZONE_EQUIVALENCIES
                  5. TRIP_TIME_REPORT
                  6. TRAVEL SUMMARY REPORT
```

## Link Equivalence

[90 NS] 1 = 8, 9

Number of Node File Records = 17

Number of Link File Records = 20  
Number of Directional Links = 28

```
Number of Lane Connectivity File Records = 63
Number of Lane Connectivity Data Records = 41
```

Number of Parking File Records = 42

Number of Activity Location File Records = 42

Number of Process Link File Records = 84

Number of Plan Files = 1  
 Number of Input Plans = 28200  
 Number of Input Records = 188000  
 Number of Input Travelers = 9400  
 Number of Input Trips = 9400

Number of New Link Volume File Records = 20

Number of New Link Delay File Records = 300

Number of New Zone Skim File Records = 50

Number of New Trip Table File Records = 50

Number of New Trip Table File Trips = 9400

Number of New Turn Movement File Records = 80

### Top 100 V/C Ratios Report

Link	From	To-Node	Capacity	Time-of-Day	Volume	V/C Ratio
4	22	23	150	8:45..9:00	614	4.09
4	22	23	150	8:30..8:45	612	4.08
16	11	29	250	8:30..8:45	834	3.34
...						
14	13	26	400	8:15..8:30	150	0.38

Number of Records in the Report = 100

### Link Group V/C Ratios Greater Than 0.00

Link Group	Links	Capacity	Time-of-Day	Volume	V/C Ratio
90 NS					
	2	2000	8:00..8:15	1413	0.71
	2	2000	8:15..8:30	1575	0.79
	2	2000	8:30..8:45	1716	0.86
	2	2000	8:45..9:00	1738	0.87
	2	2000	9:00..9:15	146	0.07

Number of Records in the Report = 5

### Trip Start Time Report

Time-of-Day	Start-Trip	Percent	Mid-Trip	Percent	End-Trip	Percent
0:00..0:15	0	0.00	0	0.00	0	0.00
...						
8:00..8:15	2336	24.85	2128	22.64	1911	20.33
8:15..8:30	2354	25.04	2334	24.83	2328	24.77
8:30..8:45	2355	25.05	2345	24.95	2346	24.96
8:45..9:00	2353	25.03	2366	25.17	2327	24.76
9:00..9:15	2	0.02	227	2.41	488	5.19
...						
23:45..24:00	0	0.00	0	0.00	0	0.00
Total	9400	100.00	9400	100.00	9400	100.00



## Travel Summary Report

Period	Trips	Total		Average				StdDev			
		Vehicle Hours	Vehicle Miles	Time (minutes)	Length (miles)	Speed (mph)	Turns (#)	Time (minutes)	Length (miles)	Speed (mph)	Turns (#)
33	2128	62	3267	1.74	1.54	58.59	0.50	0.64	0.42	19.99	0.83
34	2334	72	3663	1.85	1.57	57.36	0.50	0.79	0.45	20.46	0.82
35	2345	75	3950	1.93	1.68	58.44	0.63	0.94	0.55	19.03	1.02
36	2366	80	3983	2.02	1.68	57.56	0.64	1.21	0.55	19.43	1.02
37	227	9	359	2.28	1.58	51.41	0.68	1.22	0.51	22.96	0.92

Total Vehicle Trips = 9400  
 Total Vehicle Hours of Travel = 297.3 hours  
 Total Vehicle Miles of Travel = 15221.9 miles  
 Total Number of Turns = 5399

	Minimum	Maximum	Average	StdDev
Travel Time (minutes)	0.77	6.18	1.90	0.94
Trip Length (miles)	0.58	2.95	1.62	0.50
Travel Speed (mph)	13.31	79.71	57.81	19.84
Number of Turns	0.00	3.00	0.57	0.94

Wed Sep 08 09:58:11 2010 -- Process Complete (0:00:01)

## Example 3

```

*****
|                                     |
|      PlanSum - Version 4.0.54      |
|  Copyright (c) 2009 by AECOM Consult |
|      Thu Oct 21 09:04:45 2010      |
|                                     |
*****

```

Control File = PlanSumEx3.ct1  
 Report\_File = PlanSumEx3.prn (Create)

Summarize plans for households at activity location 39

Plan File = 8.TestBed.TimePlanA  
 Plan File Format = VERSION3  
 Plan File contains Link List Paths

Household List File = HHActLoc39.txt

Summary Time Periods = All  
 Summary Time Increment = 15 minutes

Network Directory = network  
 Node File = network\Node.txt  
 Node File Format = TAB\_DELIMITED  
 Link File = network\Link.txt  
 Link File Format = TAB\_DELIMITED  
 Lane Connectivity File = network\Lane\_Connectivity.txt  
 Lane Connectivity File Format = TAB\_DELIMITED  
 Parking File = network\Parking.txt

Parking File Format = TAB\_DELIMITED  
Activity Location File = network\Activity\_Location.txt  
Activity Location File Format = TAB\_DELIMITED

New Link Delay File = Link\_Delay39.txt  
New Link Delay File Format = TAB\_DELIMITED

Equation Parameters 1 = BPR, A=0.40, B=3.30, C=0.75  
Equation Parameters 3 = BPR, A=0.35, B=3.00, C=0.60

New Link Volume File = LinkVol39.txt

New Zone Skim File = ZoneSkim39.txt

New Trip Table File = TripTable39.txt

New Turn Movement File = TurnMvmt39.txt

PlanSum Reports: 1. TRIP\_TIME\_REPORT

Number of Node File Records = 17

Number of Link File Records = 20  
Number of Directional Links = 28

Number of Lane Connectivity File Records = 63  
Number of Lane Connectivity Data Records = 41

Number of Parking File Records = 42

Number of Activity Location File Records = 42  
Warning: Process Link Data was Not Available for Location Maps

Number of Household List Records = 84

Summarize plans for households at activity location 39

Number of Plan Files = 1  
Number of Input Plans = 28200  
Number of Input Records = 188000  
Number of Input Travelers = 9400  
Number of Input Trips = 9400

Number of New Link Volume File Records = 20

Number of New Link Delay File Records = 55

Number of New Zone Skim File Records = 5

Number of New Trip Table File Records = 5  
Number of New Trip Table File Trips = 84

Number of New Turn Movement File Records = 30

Summarize plans for households at activity location 39

Trip Start Time Report



New Plan File = 8.TestBed.TimePlanNew.txt

Number of Node File Records = 17

Number of Link File Records = 20

Number of Directional Links = 28

Number of Lane Connectivity File Records = 63

Number of Lane Connectivity Data Records = 41

Number of Parking File Records = 42

Number of Activity Location File Records = 42

Number of Process Link File Records = 84

Number of Link Delay File Records = 300, Periods = 96

Percent of Link Directions with Travel Time Data = 100.0%

Percent of Link Time Periods with Travel Time Data = 5.2%

Percent of Link Connections with Travel Time Data = 78.0%

Percent of Connection Periods with Travel Time Data = 5.2%

Number of Plan Files = 1

Number of Input Plans = 28200

Number of Input Records = 188000

Number of Input Travelers = 9400

Number of Input Trips = 9400

Number of Output Plans = 28200

Number of Output Records = 188000

Number of Output Travelers = 9400

Number of Output Trips = 9400

Thu Oct 21 08:50:26 2010 -- Process Complete (0:00:01)