LocationChoice Quick Reference

Version 4.0.4

Syntax:

LocationChoice [-flag] [control_file] [partition]

Purpose:

1. Apply location choice models to locate activities by purpose
2. Adjust activity schedules based on travel times and schedule constraints.
3. Create an activity file and a summary of activity generation problems.
4. Updated an activity file by regenerating selected household.
5. Apply attraction balancing factors by zone and trip purpose.

Required Keys

NET_NODE_TABLE	[net_directory]*filename*
NET_LINK_TABLE	[net_directory]*filename*
NET_PARKING_TABLE	[net_directory]*filename*
ACTIVITY_PATTERN_FILE	[project_directory]*filename*
NEW_ACTIVITY_FILE	[project_directory]*filename*
ACTIVITY_PURPOSE_RANGE_# (1)	[project_directory]*filename*

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)}
ACTIVITY_FILE (8)	[project_directory]*filename*
HOUSEHOLD_FILE	[project_directory]*filename*
HOUSEHOLD_LIST	[project_directory]*filename*[.partition]
NEW_PROBLEM_FILE	[project_directory]*filename*
NEW_TRIP_TIME_FILE	[project_directory]*filename*
NEW_TRIP_DISTANCE_FILE	[project_directory]*filename*
DISTANCE_CALCULATION	STRAIGHT_LINE {(3)}
AVERAGE_TRAVEL_SPEED (7)	10, 10, 10,… meters / second (4)
ADDITIONAL_TRAVEL_TIME (7)	600, 600, 600, … seconds (4)
RANDOM_NUMBER_SEED	0 {>= 0}
ACTIVITY_ANCHOR_FLAG_#	FALSE {true/false/yes/no/1/0}
SCHEDULE_CONSTRAINT_#	NONE {(5)}

ZONE_BASED_METHOD_#	TRUE {true/false/yes/no/1/0}
LOCATION_CHOICE_SCRIPT_#	[project_directory]*filename*
ZONE_WEIGHT_FIELD_#	*field_name*
ZONE_WEIGHT_FACTOR_#	1.0 {}
BALANCING_FACTOR_FIELD_#	*field_name*
LOCATION_WEIGHT_FIELD_#	*field_name*
LOCATION_WEIGHT_FACTOR_#	1.0 {}
SKIM_TIME_FIELD_#	SKIM#.*field_name*
MODE_DISTANCE_FACTORS_#	-0.001, -0.001, … {> 0 (4)}
MODE_TIME_FACTORS_#	-0.001, -0.001, … {> 0 (4)}
ZONE_SKIM_FILE_# (6)	[project_directory]*filename*
ZONE_SKIM_FORMAT_#	[default_file_format] {(2)}
TIME_PERIOD_EQUIVALANCE_#	[project_directory]*filename*
TRAVEL_TIME_FIELD_MODE_# (7)	SKIM#.*field_name*
SKIM_MEMORY_FACTOR_# (9)	1.0 {0.05..1.0}
BALANCING_FACTOR_FILE	[project_directory]*filename*
BALANCING_FACTOR_FORMAT	[default_file_format] {(2)}
NET_DIRECTORY	*Pathname*
NET_ZONE_TABLE	[net_directory]*filename*
NET_DEFAULT_FORMAT	[default_file_format] {(2)}
NET_NODE_FORMAT	[net_default_format] {(2)}
NET_LINK_FORMAT	[net_default_format] {(2)}
NET_ACTIVITY_LOCATION_FORMAT	[net_default_format] {(2)}
NET_ZONE_FORMAT	[net_default_format] {(2)}
NEW_DEFAULT_FORMAT	[default_file_format] {(2)}
NEW_ACTIVITY_FORMAT	[new_default_format] {(2)}
NEW_PROBLEM_FORMAT	[new_default_format] {(2)}
ACTIVITY_FORMAT	[default_file_format] {(2)}
HOUSEHOLD_FORMAT	[default_file_format] {(2)}

Reports

LOCATIONCHOICE_REPORT_#	LOCATION_CHOICE_SCRIPT
	LOCATION_CHOICE_STACK
	LOCATION_CHOICE_DETAILS_#
	TIME_PERIOD_EQUIVALENCE
	TRIP_LENGTH_SUMMARY
	TOUR_LENGTH_SUMMARY
	TRIP_PURPOSE_SUMMARY
	TOUR_PURPOSE_SUMMARY
	MODE_LENGTH_SUMMARY

	MODE_PURPOSE_SUMMARY

Notes

1	Each activity purpose group is comprised of up to 12 keys.
2	{VERSION3, BINARY, FIXED_COLUMN, COMMA_DELIMITED, SPACE_DELIMITED, TAB_DELIMITED, CSV_DELIMITED, DBASE, LANL, SQLITE3}
3	{STRAIGHT_LINE, RIGHT_ANGLE, SIMPLE_AVERAGE, WEIGHTED_AVERAGE}
4	`1=Walk, 2`=Drive, 3=Bus, 4=Rail, 5=Park-&-Ride Outbound, 6=Park-&-Ride Inbound, 7=Bicycle, 8=Magic Move, 9=School Bus, 10=2 Person Carpool, 11=3 Person Carpool, 12=4 Person Carpool, 13=Kiss-&-Ride Outbound, and 14=Kiss-&-Ride Inbound
5	{NONE, FIXED, START, END, DURATION, PASSENGER, NO_CONSTRAINT, FIXED_TIME, START_TIME, END_TIME
6	Zone skim groups are optional. They are used for travel time-based models and fields.
7	Travel time field by mode groups are used to specify the field in the zone skim file that is used for the travel time calculation for a given mode. This overrides the default distance-based travel time estimate. The additional travel time key is added to either estimate to schedule activities.
8	An input activity file is used to update or regenerated activities for selected households
9	Initial memory allocation for the skim file is zones * zones * periods * factor. The factor is used to estimate the relative density of the skim matrix (e.g., the percentage of cells with data). Allocating sufficient memory up front has significant performance benefits for processing the skim file.