ArcProblem Quick Reference

Version 4.0.3

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

Syntax:

ArcProblem [-flag] [control_file]

Purpose:

1. Create ArcView shapefiles from problem files generated by PopSyn and ActGen based on the activity location.
2. Create ArcView shapefiles from problem files generated by the Router based on the trip origin and destination activity locations.
3. Create ArcView shapefiles from problem files generated by the Microsimulator based on the link offset and lane where the problem occurred.
4. Select problems by problem type, time period, and/or subarea polygon.
5. Draw Microsimulator problems as vehicle polygons or points.

Required Keys

PROBLEM_FILE (1)	[project_directory]*filename*
ARCVIEW_PROBLEM_FILE	[project_directory]*filename.shp* (2)
NET_NODE_TABLE	[net_directory]*filename*
NET_LINK_TABLE	[net_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 {(4)}
PROBLEM_FORMAT	[default_file_format] {(4)}
NET_DIRECTORY	*Pathname*
NET_SHAPE_TABLE	[net_directory]*filename*
NET_ACTIVITY_LOCATION_TABLE	[net_directory]*filename*
LANE_WIDTH	1.0 meters {0.0..25.0}
CENTER_ONEWAY_LINKS	FALSE {true/false/yes/no/1/0}
DRAW_VEHICLE_SHAPES (3)	FALSE {true/false/yes/no/1/0}

DRAW_TRIP_OD_LINKS (11)	FALSE {true/false/yes/no/1/0}
TIME_OF_DAY_FORMAT	24_HOUR_CLOCK {(5)}
SELECT_TIME_PERIODS	All (6)
SELECT_TIME_INCREMENT	0 minutes {0, 240}
SELECT_LINKS	All {7}
SELECT_PROBLEM_TYPES	TOTAL {8}
SELECT_SUBAREA_POLYGON	[project_directory]*filename.shp*
INPUT_COORDINATE_SYSTEM	System, Code, Units (9)
INPUT_ADJUSTMENT_FACTORS	X offset, Y offset, X factor, Y factor (10)
OUTPUT_COORDINATE_SYSTEM	System, Code, Units (9)
OUTPUT_ADJUSTMENT_FACTORS	X offset, Y offset, X factor, Y factor (10)
OUTPUT_XYZ_SHAPES	FALSE {true/false/yes/no/1/0}
OUTPUT_XYM_SHAPES	FALSE {true/false/yes/no/1/0}
NET_DEFAULT_FORMAT	[default_file_format] {(4)}
NET_NODE_FORMAT	[net_default_format] {(4)}
NET_LINK_FORMAT	[net_default_format] {(4)}
NET_SHAPE_FORMAT	[net_default_format] {(4)}
NET_ACTIVITY_LOCATIONY_FORMAT	[net_default_format] {(4)}

Notes

1	The display options and the number of fields in the output file depend on the program that generated the problem file. The PopSyn, ActGen, Router, and Microsimulator programs all generate problem files.
2	*.shp, *.shx, *.dbf, and *.dbf.def files are created based on the filename. A separate file is created for each time increment. The corresponding time value is automatically added to the filename (i.e., *filename.*HHMM_HHMM.*shp*).
3	If draw vehicle shapes is true, the images will draw vehicles as a polygon pointing in the direction of travel. If false, a point is entered 1.5 meters back from the front of the vehicle.
4	{VERSION3, BINARY, FIXED_COLUMN, COMMA_DELIMITED, SPACE_DELIMITED, TAB_DELIMITED, CSV_DELIMITED, DBASE, LANL, SQLITE3}
5	{HOURS, SECONDS, 24_HOUR_CLOCK, 12_HOUR_CLOCK}
6	Time Range (e.g., 0:00..6:00, 18:00..23:00)
7	Link ID list or range (e.g., 100, 200, 300..400)
8	Comma separated list of problem types. Options include: 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

9	System options include: UTM, STATEPLAN, and LATLONG Code is the FIPS code number for the system (e.g., Oregon North = 3601) Unit options include: FEET, METERS, MILES, KILOMETERS, DEGREES, and MILLION_DEGREES.
10	X and Y offsets are added to the coordinate values X and Y factors are multiply the coordinate values
11	Draws the problem records as a link between the trip origin and destination.