Attribute Definition: Number of vehicles passing through a tube station per hour.
Attribute Domain Values: Integer

Vehicle Trajectory Data

Vehicle trajectory data was collected on Peachtree Street in Atlanta, Georgia on November 8, 2006. Data from 12:45 p.m. to 1:00 p.m., and 4:00 p.m. to 4:15 p.m is included. This data was collected using eight video cameras mounted on a 30-story building, which is located at1100 Peachtree Street NE, Atlanta, GA. Vehicle trajectory data were transcribed from the video data using a customized software application, Next Generation Simulation - Vehicle Interaction and Detection Environment for Operations (NGSIM-VIDEO), developed for NGSIM. This program was used to automatically detect and track most vehicles from the video images and transcribe the trajectory data to a database. Manual transcription was used to track any vehicles which failed to be automatically detected and tracked. The data provides X, Y coordinates of each vehicle, every 1/10th of a second in relative space and in NAD83 (the units are US Survey Feet). Time is given in Epoch time, which is the elapsed time since midnight (beginning of the calendar day) GMT on January 1, 1970 in milliseconds. This elapsed epoch time must be shifted to the US Pacific time zone for comparisons to local time at the highway. During the data collection period, no traffic incidents were recorded within the study area or on any adjacent locations likely influencing traffic in the study area.

Files:

- **trajectories-1245pm-0100pm**
  This file contains all vehicle trajectories for the specified time period, sorted by time. The X accuracy of this data set is estimated at around 2 feet and the Y accuracy is estimated at around 4 feet. The start time for the trajectory data set corresponds to 12:45:00 p.m. in the Real-time Split Monitor (RSM) report.
- **trajectories-0400pm-0415pm**
  This file contains all vehicle trajectories for the specified time period, sorted by time. The X accuracy of this data set is estimated at around 2 feet and the Y accuracy is estimated at around 4 feet. The start time for the trajectory data set corresponds to 4:00:00 p.m. in the Real-time Split Monitor (RSM) report

Attribute

Attribute Label: Vehicle_ID (Column A)
Attribute Definition: Vehicle identification number (ascending by time of entry into section)
Attribute Domain Values: Integer

Attribute

Attribute Label: Frame_ID (Column B)
Attribute Definition: Frame Identification number (ascending by start time)
Attribute Domain Values: Integer

Attribute

Attribute Label: Total_Frames (Column C)
Attribute Definition: Total number of frames in which the vehicle appears in this data set.
Attribute Domain Values: Integer

Attribute

Attribute Label: Global_Time (Column D)
Attribute Definition: Elapsed time in milliseconds since Jan 1, 1970 (Epoch time).
Attribute Domain Values: Integer

Attribute

Attribute Label: Local_X (Column E)

Attribute Definition: Lateral (X) coordinate of the front center of the vehicle - perpendicular to the median of the Peachtree Street. Measured in feet. Vehicles traveling on the east side of the median have positive Local X values, while those traveling on the west side of the median have negative Local X values
Attribute Domain Values: Double

Attribute

Attribute Label: Local_Y (Column F)
Attribute Definition: Longitudinal (Y) coordinate of the front center of the vehicle along the median of the Peachtree Street. Measured in feet. The start point is at the southern boundary of the study area.
Attribute Domain Values: Double

Attribute

Attribute Label: Global_X (Column G)
Attribute Definition: X Coordinate of the front center of the vehicle based on Georgia West State Plane in NAD83. Measured in feet.
Attribute Domain Values: Double

Attribute

Attribute Label: Global_Y (Column H)
Attribute Definition: Y Coordinate of the front center of the vehicle based on Georgia West State Plane in NAD83. Measured in feet.
Attribute Domain Values: Double

Attribute

Attribute Label: v_Length (Column I)
Attribute Definition: Length of vehicle in feet.
Attribute Domain Values: Double

Attribute

Attribute Label: v_Width (Column J)
Attribute Definition: Width of vehicle in feet
Attribute Domain Values: Double

Attribute

Attribute Label: v_Class (Column K)
Attribute Definition: Vehicle type: 1 - motorcycle, 2 - auto, 3 - truck
Attribute Domain Values: Integer

Attribute

Attribute Label: v_Vel (Column L)
Attribute Definition: Instantaneous velocity of vehicle (feet/second).
Attribute Domain Values: Double

Attribute

Attribute Label: v_Acc (Column M)
Attribute Definition: Instantaneous acceleration of vehicle (feet/second square).
Attribute Domain Values: Double

Attribute

Attribute Label: Lane_ID (Column N)
Attribute Definition: Current lane position of vehicle. Lane numbering is incremented from the left-most lane, except for locations where left-turn or right-turn bays exist. Left-turn bays are numbered starting from 11 and are incremented from the left-most left-turn bay.
Attribute Domain Values: Integer

Attribute

Attribute Label: O_Zone (Column O)
Attribute Definition: Origin zones of the vehicles, i.e., the place where the vehicles enter the tracking system. There are 21 origins in the study area, numbered from 101 through 123.

Destination 204 and 209 are a one-way off-ramp; hence, there are no associated origin number 104 and 109. Please refer to the data analysis report for more detailed information.
Attribute Domain Values: Integer

Attribute

Attribute Label: D_Zone (Column P)
Attribute Definition: Destination zones of the vehicles, i.e., the place where the vehicles exit the tracking system. There are 22 destinations in the study area, numbered from 201 through 223. Origin 119 is a one-way off-ramp; hence there is no associated destination number 219. Please refer to the data analysis report for more detailed information.
Attribute Domain Values: Integer

Attribute

Attribute Label: Int_ID (Column Q)
Attribute Definition: Intersection in which the vehicle is traveling. Intersections are numbered from 1 to 5, with intersection 1 at the southernmost, and intersection 5 at the northernmost section of the study area. Value of “0” means that the vehicle was not in the immediate vicinity of an intersection and that the vehicle instead identifies with a section of Peachtree Street (Section_ID, below). Please refer to the data analysis report for more detailed information.
Attribute Domain Values: Integer

Attribute

Attribute Label: Section_ID (Column R)
Attribute Definition: Section in which the vehicle is traveling. Peachtree Street is divided into six sections (south of intersection 1; between intersections 1 and 2, 2 and 3, 3 and 4, 4 and 5, 5 and 6; and north of intersection 6). Value of “0” means that the vehicle does not identify with a section of Peachtree Street and that the vehicle was in the immediate vicinity of an intersection (Int_ID above). Please refer to the data analysis report for more detailed information.
Attribute Domain Values: Integer

Attribute

Attribute Label: Direction (Column S)
Attribute Definition: Moving direction of the vehicle. 1 - east-bound (EB), 2 - north-bound (NB), 3 - west-bound (WB), 4 - south-bound (SB).
Attribute Domain Values: Integer

Attribute

Attribute Label: Movement (Column T)
Attribute Definition: Movement of the vehicle. 1 - through (TH), 2 - left-turn (LT), 3 - right-turn (RT).
Attribute Domain Values: Integer

Attribute

Attribute Label: Preceding (Column U)
Attribute Definition: Vehicle ID of the lead vehicle in the same lane. A value of '0' represents no preceding vehicle.
Attribute Domain Values: Integer

Attribute

Attribute Label: Following (Column V)
Attribute Definition: Vehicle ID of the vehicle following the subject vehicle in the same lane. A value of '0' represents no following vehicle.
Attribute Domain Values: Integer

Attribute

Attribute Label: Space_Headway (Column W)
Attribute Definition: Space Headway. Provides the distance between the front-center of a vehicle to the front-center of the preceding vehicle. Measured in feet.
Attribute Domain Values: Double

Attribute

Attribute Label: Time_Headway (Column X)
Attribute Definition: Time Headway. Provides the time to travel from the front-center of a vehicle (at the speed of the vehicle) to the front-center of the preceding vehicle. A headway value of 9999.99 means that the vehicle is traveling at zero speed (congested conditions). Measured in seconds.
Attribute Domain Values: Double

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Metadata Reference Information

Metadata Date: 20160328
Metadata Review Date: 20160328
Metadata Future Review Date: not scheduled

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