

	Record_Type	State_Code	F_System	Station_Id	Travel_Dir	Travel_Lane	Year_Record	Month_Record	Day_Record	Day_of_Week	...	Hour_15	Hour_16	...
0	3	2	1R	101	1	1	22	4	1	6	...	29	48	...
1	3	2	1R	101	1	1	22	4	2	7	...	36	37	...
2	3	2	1R	101	1	1	22	4	3	1	...	61	52	...
3	3	2	1R	101	1	1	22	4	4	2	...	20	31	...
4	3	2	1R	101	1	1	22	4	5	3	...	22	13	...

Notes on TMAS

General Overview of Data Available:

- Yearly data with monthly files available
- for each monthly file, there are 50 files for 50 states

Description provided

The Hourly Traffic Volume Record format is a fixed length, fixed field record. One record is used for each calendar day for which traffic monitoring data is being submitted. Each record contains a field for traffic volume occurring during each of the 24 hours of that day. Blank fill the columns used for any hours during which no data is being reported. Table 7-9 summarizes the Hourly Traffic Volume record.

Columns:

Record_Type: Entries are all the value of "3" because the record is traffic volume record.
State_Code: Depending on state, value differs. Alphabetically ordered, so Alabama = 1, Alaska = 2, and so on.
F_System: functional classification code and contains either an "R" or a "U", where R is for rural and U is for urban. The code also includes a digit from 1-7 and each one stands for a functional classification (See table 7-5 below).
Station_Id: This field should contain an alphanumeric designation for the station where the survey data is collected. Station identification field entries must be identical in all records for a given station. Differences in characters, including spaces, blanks, hyphens, etc., prevent proper match.
Travel_Dir: Combined directions are only permitted for volume stations only (what we're using). There should be a separate record for each direction identified in Table 7-3. Whether or not lanes are combined in each direction depends on field #5, Lane of Travel (Travel_Lane).
Travel_Lane: Either each lane is considered a separate station or all lanes in each direction are combined (See Table 7-4). Example of travel lane and travel direction also provided below.
Year_Record:
Month_Record
Day_Record
Day_of_Week: 1-7, 1 for Sunday and so on.
Hour_00

Hour_01
Hour_02
Hour_03
Hour_04
Hour_05
Hour_06
Hour_07
Hour_08
Hour_09
Hour_10
Hour_11
Hour_12
Hour_13
Hour_14
Hour_15
Hour_16
Hour_17
Hour_18
Hour_19
Hour_20
Hour_21
Hour_22
Hour_23

Restrictions:

- 0 = no restrictions
- 1 = construction or other activity affected traffic flow, traffic pattern not impacted
- 2 = traffic counting device problem (e.g., malfunction or overflow)
- 3 = weather affected traffic flow, traffic pattern not impacted
- 4 = construction or other activity affected traffic flow, traffic pattern impacted
- 5 = weather affected traffic flow, traffic pattern impacted

TABLE 7-5 FUNCTIONAL CLASSIFICATION CODES

Code Functional Classification

1	Interstate
2	Principal Arterial – Other Freeways and Expressways
3	Principal Arterial – Other
4	Minor Arterial
5	Major Collector
6	Minor Collector
7	Local

TABLE 7-3 DIRECTION OF TRAVEL CODES

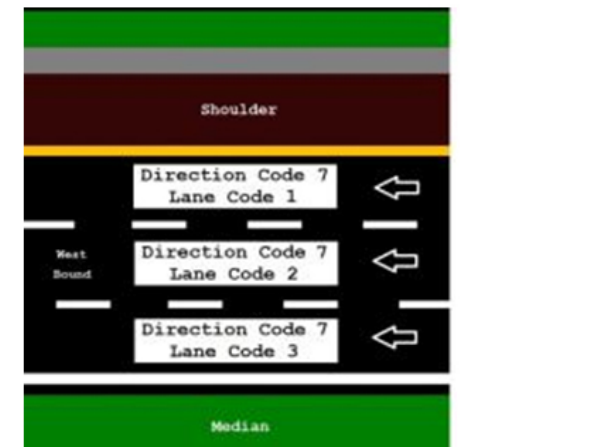
Code	Direction
1	North
2	Northeast
3	East
4	Southeast
5	South
6	Southwest
7	West
8	Northwest
9	North-South or Northeast-Southwest combined (volume stations only)
0	East-West or Southeast-Northwest combined (volume stations only)

TABLE 7.4 LANE OF TRAVEL CODES

Code	Lane
0	Data with lanes combined
1	Outside (rightmost) lane
2-9	Other lanes

Note: The Station ID, Direction of Travel, and Lane of Travel make up the Station Code. There should be one Station Description record per Station Code. Stations can be either by lane or with lanes combined by direction, but not both.

FIGURE 7-1 DIRECTION AND LANE CODE EXAMPLE



Example of an entry:

TABLE 7-11 HOURLY TRAFFIC VOLUME RECORD EXAMPLES

VOLUME SITE (4 LANES WITH ALL LANES AND DIRECTIONS COMBINED) VOLUME FILE

Column Number: 1 2-3 4-5 6-11 12 13 14-17 18-19 20-21 22 23-27 28-32

Content Example: 3 17 2R 01710A 9 0 2012 04 25 4 00046 00022

continued

Column Number: 33-37 38-42 43-47 48-52 53-57 58-62 63-67 68-72 73-77 78-82 83-87 88-92

Content Example: 00014 00013 00029 00030 00075 00136 00179 00218 00264 00293 00322 00401

continued

Column Number: 93-97 108-112 113-117 118-122 123-127 128-132 133-137 138-142 143

Content Example: 00439 00366 00261 00202 00143 00098 00054 00022 0

df.describe() result for April 2022 Arkansas

	Record_Type	State_Code	Station_Id	Travel_Dir	Travel_Lane	Year_Record	Month_Record	Day_Record	Day_of_Week	Restrictions	Volume cumulative
count	10702.0	10702.0	10702.000000	10702.000000	10702.000000	10702.0	10702.0	10702.000000	10702.000000	10702.0	10702.000000
mean	3.0	2.0	32525.660344	3.709961	1.469445	22.0	4.0	15.574192	4.164549	0.0	3728.585031
std	0.0	0.0	85996.990395	2.211542	0.719618	0.0	0.0	8.608464	2.030034	0.0	2727.571072
min	3.0	2.0	101.000000	1.000000	1.000000	22.0	4.0	1.000000	1.000000	0.0	9.000000
25%	3.0	2.0	129.000000	1.000000	1.000000	22.0	4.0	8.000000	2.000000	0.0	1351.000000
50%	3.0	2.0	511.000000	3.000000	1.000000	22.0	4.0	16.000000	4.000000	0.0	3443.000000
75%	3.0	2.0	804.000000	5.000000	2.000000	22.0	4.0	23.000000	6.000000	0.0	5424.750000
max	3.0	2.0	559650.000000	7.000000	4.000000	22.0	4.0	30.000000	7.000000	0.0	14392.000000

IDEAS ON WHAT TO DO WITH THIS DATA:

- Some of the columns aren't exactly necessary depending on what we want to find.

example:

if we wish to focus on monthly progress, we don't need columns such as Day_Record, Day_of_Week,

if we wish to focus on daily progress, we don't need the hour columns, which is what I did in the above image. Volume cumulative is all traffic added together daily

if we wish to focus on yearly progress, we don't need hour columns, day columns, nor month columns

- We could also shorten the data in other ways by focusing on station by station traffic. So, for each unique station id, we can add all traffic together.
- find duplicates if there is any.
- trying to find corresponding locations for all the station id
 - 2020: <https://explore.dot.gov/views/2020ActiveSiteMap/Sheet1?%3Aembed=y&%3Aiid=1&%3AisGuestRedirectFromVizportal=y>
 - must verify whether it corresponds to the

Useful websites:

- https://explore.dot.gov/views/StateStatisticalAbstracts_16699101653250/DashboardALT?%3Aembed=y&%3Aiid=1&%3AisGuestRedirectFromVizportal=y
- https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm
- <https://www.fhwa.dot.gov/policyinformation/>