Data Specification of Traffic Flow Census (7 November 2019)

1 Introduction

The Traffic Flow Census provides vehicle flow information of Hong Kong. These statistical data are collected through the counting at the counting stations. The dataset includes cordon lines, screenlines and the location of the counting stations and their survey data such as average annual daily traffic flow by vehicle type by traffic bound.

2 Textual data

Filename in excel format	Entity in IRN	Remarks
SXXXX.xls	counting station traffic data	counting stations
XXX Cordon.xls	cordon traffic data	Hong Kong external cordon Hong Kong internal cordon Kowloon external cordon Tsing Yi external cordon
Screenline X-X.xls	screenline traffic data	Hong Kong Screenline F-F Screenline G-G Screenline H-H Screenline I-I Kowloon Screenline A-A Screenline C-C Screenline K-K New Territories Screenline R-R Screenline S-S Screenline T-T Screenline Y-Y

2.1 Content of Counting station data:

Two types

- Typical – Core stations falling on cordons/screenlines and Coverage (B) stations falling on cordons/ screenlines
- Core Stations not falling on cordons/ screenlines

(I) <u>Content of typical stations</u>

1. Traffic flow variation and growth
   - Monthly variation
   - Daily variation
   - Hourly variation

- Annual growth

2. Traffic characteristics (by direction)
   - A.A.D.T. (Annual Average Daily Traffic)
   - R 12 / 24 % [Ratio of 12 hour flow (0700-1900) to 24 hour flow]
   - R16 / 24 - % [Ratio of 16 hour flow (0700-2300) to 24 hour flow]
   - AM Peak Hour
   - One-way flow at AM peak hour
   - T - % (AM) - Proportion of commercial vehicles in the peak hour flow
   - One-way flow at PM Peak hour
   - T - % (PM) - Proportion of commercial vehicles in the peak hour flow
   - Proportion of commercial vehicles – 16 hr.
3. Other information and comment
4. Vehicle classification and occupancy – Monday to Friday (16 hours)
   - The proportion of different class of vehicle and average occupancy of vehicles (16 hours) are available.
   - Proportion of vehicles in %
   - Average occupancy of vehicles

(II) Content of core Stations not falling on cordons/ screenlines

Same as that for typical station but without vehicle classification and occupancy.

2.2 Content of Cordon and screenline data:

Same as counting station data but with additional graph on passenger volume (16 hr., Mon-Fri.).

2.3 Content of summary of Annual Average Daily Traffic of counting stations

Content includes station no., station type, region, road network, road type, road name, section from and to, AADT for the current year and the previous year and the AADT change as %.

Notes:

PDF format of Annual Traffic Census is available in Transport Department's website at the following link http://www.td.gov.hk/en/publications_and_press_releases/publications/free_publications/index.html

3 Spatial data

Summary of Traffic Flow Census Entities

	Filename	Entity in ER Diagram	Description	Remarks
1	ATC_CORDON_LINE	ATC_CORDON_LINE	Line feature of cordon	
2	ATC_SCREENLINE_LINE	ATC_SCREENLINE_LINE	Line feature of screen line	
3	ATC_STATION_PT	ATC_STATION_PT	Point feature on location of ATC Counting Station	
4	ATC_STATION_LINE	ATC_STATION_LINE	Line feature on location of ATC Counting Station	ATC Station Line is represented location of ATC station crossing Centreline as referred below.
5	CENTRELINE	CENTERLINE	Line feature of road which is referred to the same specification of Centreline in Road Network dataset - (https://data.gov.hk/en-data/dataset/hk-td-tis_15-road-network-v2)	This Centreline feature is referred by ATC Station Line as above.
6	GISDBXX.xml	Detailed information on ATC Counting Station	A textual data of information on ATC Counting Station It is associated to entity "3. ATC_STATION_PT" above	Where XX is last two digits of census year, e.g. 18

Data Definition of Traffic Flow Census Entities

1. ATC_CORDON_LINE

Data Item	Description	Type	Width
FEATUREID	The feature identifier of Cordon Line	Number	
SHAPE	The Geometry of Cordon Line	Geometry	
CORDONLINE	Location name of Cordon Line	Text	100
OBJECTID	Object ID generated by system	Number	

2. ATC_SCREENLINE_LINE

Data Item	Description	Type	Width
FEATUREID	The feature identifier of Screen Line	Number	
SHAPE	The Geometry of Screen Line	Geometry	
SCREENLINE	Location name of Screen Line	Text	100
OBJECTID	Object ID generated by system	Number	

3. ATC_STATION_PT

Data Item	Description	Type	Width
FEATUREID	The feature identifier of Station	Number	
SHAPE	The Geometry of Station	Geometry	
ATC_STATION_NO	Station number	Number	
OBJECTID	Object ID generated by system	Number	

4. ATC_STATION_LINE

Data Item	Description	Type	Width
FEATUREID	The feature identifier of Cordon Line	Number	
SHAPE	Shape of Feature	Geometry	
ATC_STATION_NO	Station number	Number	
DIRECTION	Line direction (e.g EB)	Text	**50**
OBJECTID	Object ID	Number	

5. CENTERLINE

Data Item	Description	Type	Width
ROUTE_ID	Unique Identifier for the Route segment	Number	
STREET_ENAME	Street / Bridge / Tunnel Name in English	Text	255
STREET_CNAME	Street / Bridge / Tunnel Name in Chinese	Text	255
ELEVATION	The relative elevation level of a road element when two or more roads overlap. Numbers are used to represent the following elevations: a) Zero (0) is the ground level (default); b) A negative number (i.e. –1, –2, –3…) represents underground level; c) A positive number (i.e. 1, 2, 3…) represents flyover level.	Number	
ST_CODE	This is the 5 digit street code from Lands Information Centre of Lands Department named roads according to Road Centerline Common Spatial Unit. a) 10001-29999 = Streets with gazetted name (assigned by LIC) b) 30001-39999 = Streets with ungazetted name (assigned by LIC)	Number	

Data Item	Description	Type	Width
ROUTE_ID	Unique Identifier for the Route segment	Number	
	c) 40001-59999 = Streets without name (assigned by LIC)		
EXIT_NUM	This field stores the Exit number of Strategic Routes as well as its associated Strategic Route Number. (e.g. 9A, 4 indicates Exit number 9A of Route No. 4)	Text	50
ROUTE_NUM	This is the field that store Strategic Route number of the road	Number	
REMARKS	Additional Information	Text	200
OBJECTID	Object ID	Number	
TRAVEL_DIRECTION	The permitted direction(s) of travel. Such information is used to determine the accessibility of the road segment. Numbers are used to represent the following travel directions: (1) = Travel is permitted in both directions (default); (2) = Travel is only permitted against the digitised direction of the line feature; (3) = Travel is only permitted in the digitised direction of the line feature; (4) = Travel is not permitted in either direction (Restricted Road). The value of 'Travel_direction' would be assigned to "4" to indicate that the road segment is not permitted for general use by private cars and goods vehicle. Examples of these roads are prohibition zones for all motor vehicles except franchised buses, public light buses, taxis, etc., prohibition zones for all vehicles except with permit and full-time pedestrian zone.	Number	
CRE_DATE	To store the date that the record was created	Date/Time	
LAST_UPD_DATE_V	To store the date that the record was updated	Date/Time	
ALIAS_ENAME	Alias Name for Street / Bridge / Tunnel in English	Text	255
ALIAS_CNAME	Alias Name for Street / Bridge / Tunnel in Chinese	Text	255
SHAPE	Shape of Feature	Geometry	

6. GISDBXX (where XX is last two digits of census year)

   - Detailed information on ATC Counting Station

   - Associate to entity “3. ATC_STATION_PT” above

Data Item	**Description**	**Type**	**Width**
STATIONNO	Station No (associating to data item - “ATC_STATION_NO” in entity - “3. ATC_STATION_PT” as referred above)	Number	19
STATIONTYPE	Type of Station	Text	50
REGIONAL	Region of Station	Text	50
ROADTYPE	Type of road	Text	50
ROADNETWORK	Road network	Text	50
ROADNAME	Name of road	Text	200
ROADFROM	Name of road of the station counting from	Text	200
ROADTO	Name of road of the station counting to	Text	200
PREAADT	AADT of previous survey year	Text	50
CURAADT	AADT of current survey year	Text	50
CHANGEAADT	Change of AADT	Text	50

Entity Relationship Diagram (Spatial Entities)