

Information Sheet Traffic Lights



Traffic signal locations display a 7 day snapshot of detector volumes and signal data. The following fact sheet will cover the different artefacts supplied and their contents.

Main Roads is committed to working with industry to improve the self-service capability of trafficmap with an aim of making data easily available.

Trafficmap refreshes detector volumes and signal data every three months in March, June, September and December. The data displayed is sourced from the third full week of the previous month. This ensures that a full 7 days' worth of data is available i.e. there are no public or school holidays.

All traffic signal data is sourced from the Mainroads' Sydney Coordinated Adaptive Traffic System (SCATS).

Where the information provided on trafficmap does not meet your information requirements (e.g. For Intersection Diagnostic Monitor information, Strategic Monitoring and specific history date ranges) requests can still be submitted via the online forms.

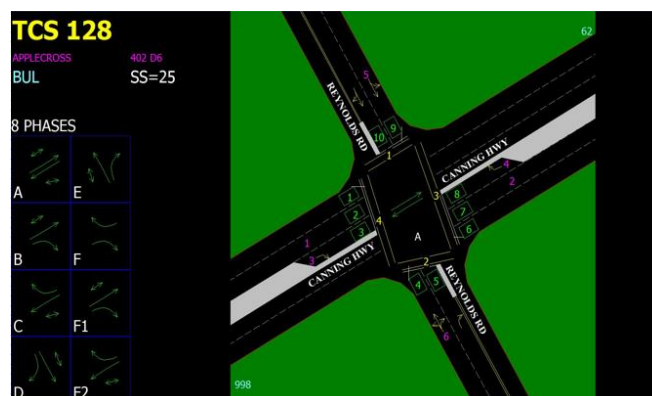
Detector Volume Data

Detector Volume Data is the number of vehicles detected at a set of traffic signals in a downloadable spreadsheet format. The information provided is the equivalent of submitting a standard SCATS Traffic Volume request for 15 minute (quarter hourly) or 60 minute (Hourly) intervals recorded over the course of seven days where no public or school holidays have occurred.

The detector volume data is provided as a downloadable spreadsheet containing the following tabs:

Site Details

Location details are provided in the extract, along with the site graphic. The graphic supplied displays the configuration of detectors and the approaches at the time the SCATS data was extracted.



Quarter Hourly and Hourly Volumes

Volumes are presented per detector

Hourly Intervals

Straight Line Kilometre is the measurement used within Main Roads to define the location of events along a road.

Traffic Signal Vehicle Counts												
Traffic Signal	LM00128											
From	18/02/2019											
To	24/02/2019											
Day	Date	Hour	Detector									
			1	2	3	4	5	6	7	8	9	10
Monday	18/02/2019	00:00	44	23	2	2	5	41	27	9	8	6
Monday	18/02/2019	01:00	28	9	0	2	2	26	12	7	6	10
Monday	18/02/2019	02:00	25	10	0	3	2	16	12	5	2	4
Monday	18/02/2019	03:00	35	19	0	1	4	28	11	3	2	2
Monday	18/02/2019	04:00	42	48	3	3	3	61	28	5	2	4

Quarter Hourly Intervals

Traffic Signal Vehicle Counts												
Traffic Signal		LM00128										
From		18/02/2019										
To		24/02/2019										
Day	Date	Hour	Detector									
			1	2	3	4	5	6	7	8	9	10
Monday	18/02/2019	00:00	44	23	2	2	5	41	27	9	8	
Monday	18/02/2019	01:00	28	9	0	2	2	26	12	7	10	
Monday	18/02/2019	02:00	25	10	0	3	2	16	12	5	2	
Monday	18/02/2019	03:00	35	19	0	1	4	28	11	3	2	
Monday	18/02/2019	04:00	42	48	3	3	3	61	28	5	2	

Data Validation

In the snippet shown above it can be seen that several intervals show ZERO data. It is not appropriate to display data where a detector is sending a fault signal or the detector is "chattering" i.e. logging vehicles incorrectly.

To provide the best picture of what is occurring at the traffic signal intersection the data is passed through a set of validation rules and the erroneous data is excluded from publication for both the affected quarter hour and hour interval.

Peaks

Peak Times are the times of day where the highest volume of vehicles was detected. AM and PM daily peak times have been provided for each detector. The displayed peak time denotes the start of the peak time. e.g. An hourly peak of 08:15am denotes the peak hour occurred between 08:15am and 09:14:59 am. A quarterly hourly peak of 08:15 denotes the peak quarter hour occurred between 08:15 to 08:29:59am.

Detector Peaks

Traffic Signal Vehicle Counts											
Traffic Signal		LM00128									
From		18/02/2019									
To		24/02/2019									
Day	Date	Peak Period	Peak Hour	1		2		3		4	
				Volume	Peak Hour	Volume	Peak Hour	Volume	Peak Hour	Volume	Peak Hour
Monday	18/02/2019	AM	08:15	859	07:15	1171	11:00	23	07:30	100	
Monday	18/02/2019	PM	16:30	750	15:00	868	15:30	28	14:15	104	
Tuesday	19/02/2019	AM	07:00	837	07:00	1200	11:00	34	08:45	115	
Tuesday	19/02/2019	PM	16:45	770	16:45	938	15:30	30	17:15	91	

Site Performance

The peak site performance of an intersection is when the intersection has its highest volume as a whole, with the volumes broken down by detector during that period.

Intersection Peaks

Traffic Signal Vehicle Counts														
Traffic Signal		LM00128												
From		18/02/2019												
To		24/02/2019												
Day	Date	Peak Period	Peak Hour	Detector										
				All	1	2	3	4	5	6	7	8	9	10
Monday	18/02/2019	AM	08:00	4065	837	1104	7	102	208	829	733	58	86	101
Monday	18/02/2019	PM	16:30	3907	750	850	22	94	36	908	862	35	71	84
Tuesday	19/02/2019	AM	07:30	3842	734	1101	7	94	227	766	696	68	78	71
Tuesday	19/02/2019	PM	16:30	4024	769	914	26	84	88	934	1045	31	55	68
Wednesday	20/02/2019	AM	07:45	4168	837	1142	2	104	212	808	824	68	81	90
Wednesday	20/02/2019	PM	16:45	4026	750	837	17	90	100	931	1006	38	71	81

Signal Data

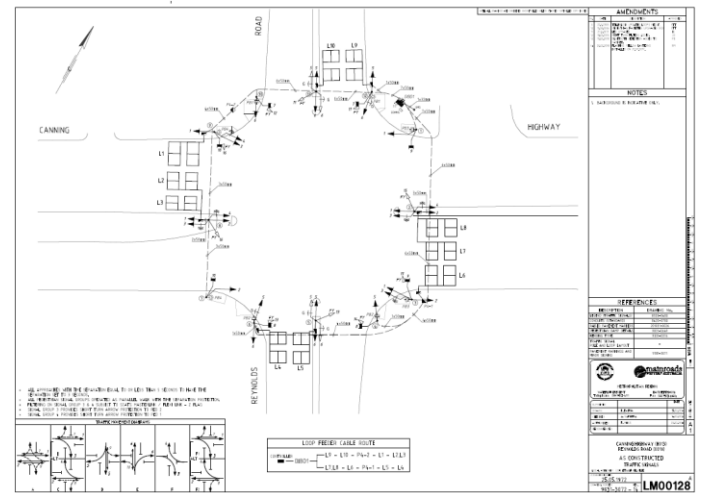
The signal data provided includes phase sequences, timings, drawings, link and offset plans and a historical 7-day phase log. The information presented is the equivalent of submitting a standard SCATS Signal Data request for a seven day period where no public holidays/school holidays have occurred.

The following artefacts are available for downloading.

Signal Drawings

LMA - Traffic Signal Arrange drawings

LMB - Pavement and Signage drawings are available in PDF format, providing the arrangements of traffic signal to identify lane configuration, permitted movements and signal configurations.



Signal Phase Sequence Charts

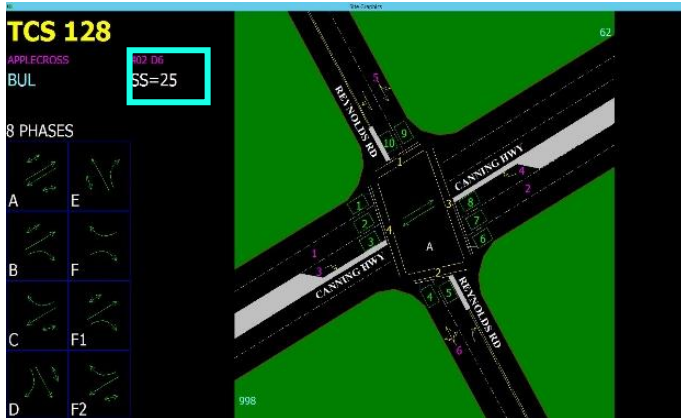
Phase sequence charts provide information on the phase sequences of a signalised intersection, including green phases, overlaps and durations of red and off arrow durations.

Signal Data

The Signal data is a formatted downloadable spreadsheet containing the following data sets:

Site Details

Location details are provided along with the site graphic. The graphic displays the configuration of detectors, the approaches at the time the data was extracted and the related link subsystem (SS)



Link and Offset Plans

Provides the information needed to understand how SCATS operates in regards to the coordination between two or more adjacent intersections.

The extract provides an intersection's

- Offset plans or Coordinated Phases (PP)
- Sub System
- Link Plans (LP)
- Cycle Length (Offset Length (PS))

Time Settings

Displays the current time settings for a signalised intersection:

Phase times to identify late starts, minimum green, early cut-off green, yellow, all-red and maximum green.

Walk times to identify delay and walk time, clearance 1 and clearance 2 times.

Special times to identify where pedestrian protection times exist.

Traffic Signal	LM00128					
Phase Times						
Phase Times	A	B	C	D	E	F
Late Start	4	4	4	0	0	4
Minimum Green	4	4	4	8	8	4
Early Cut-Off Green	0	0	0	0	0	0
Yellow	4	4	4	4	4	4
All-red	2	2	2	3	3	2
Maximum Green	110	10	10	30	30	40
Increment	0	0	0	0	0	0
Maximum Initial Green	0	0	0	0	0	0
Special Red	0	0	0	0	0	0
Pedestrian Phase Times						
Walk Times	1	2	3	4		
Delay	0	0	0	0	0	0
Walk Time	6	6	6	6		
Clearance 1	10	12	15	15		
Clearance 2	5	5	6	6		
Special Times						
1	2	3	4	5	6	7
0	0	0	0	0	0	0
11	12	13	14	15	16	17
2.5	8	0	0	0	0	0
21	22	23	24	25	26	27
0	0	0	0	0	0	0
31	32	33	34	35	36	37
0	0	0	0	0	0	0

SubSystem	25
Coordinated Phase 1	0
Coordinated Phase 2	0
Coordinated Phase 3	0
Coordinated Phase 4	0
Link plan 1	0
Link plan 2	28,14F62
Link plan 3	10,7F62
Link plan 4	-15,10F62
Offset Length 1	60^,85
Offset Length 2	100,160
Offset Length 3	100,140
Offset Length 4	100,140

SCAT Phase History

SCATS Phase History is a log containing phase sequences and phase times at a traffic signal intersection. The log will contain the same 7 days as provided by the detector volume counts.

PhaseDate	SiteNumber	Phase	Duration	StartTime	EndTime
14/10/2017	128	?	114	12:00:01 AM	12:01:55 AM
14/10/2017	128	A	107	12:01:55 AM	12:03:42 AM
14/10/2017	128	B	14	12:03:42 AM	12:03:56 AM
14/10/2017	128	A	86	12:03:56 AM	12:05:22 AM
14/10/2017	128	B	13	12:05:22 AM	12:05:35 AM
14/10/2017	128	A	14	12:05:35 AM	12:05:49 AM
14/10/2017	128	B	15	12:05:49 AM	12:06:04 AM
14/10/2017	128	A	102	12:06:04 AM	12:07:46 AM
14/10/2017	128	B	13	12:07:46 AM	12:07:59 AM
14/10/2017	128	A	56	12:07:59 AM	12:08:55 AM
14/10/2017	128	B	12	12:08:55 AM	12:09:07 AM

General Information

How is the data collected?

All traffic signal data is sourced from the Sydney Coordinated Adaptive Traffic System (SCATS).

Volumes are captured by an activation of a vehicle detector. Detectors are devices installed at each approach to a set of traffic signals. As a vehicle approaches, the detector registers a presence and increases the volume count.

Signal data is collected from the specifications used to program the traffic signal intersections and the real time log files.

SCATS Disclaimer

Please note that SCATS traffic counts are subject to below:

SCATS traffic count data should really be considered as vehicle detector activations rather than explicit traffic volumes. Accordingly, there is usually some discrepancy between manual counts undertaken and vehicle activation counts. Typically SCATS under counts vehicle volumes. This is generally due to the closer spacing of vehicles at start of green and the length of the vehicle detection **SCATS** loop.

Vehicle detector activations will provide some indication of traffic volumes that pass through a signalised intersection during the provided green period. However, it must be noted that the traffic counts will not provide any information in regards to traffic that has not passed through an intersection. This may be caused by normal intersection capacity constraints.

Any SCATS traffic count data could be influenced by the condition of the vehicle detection systems.

Further information

For further information email info@trafficmap.wa.gov.au