

LIST OF SITES relevant to selection parameters (Cont.)

9	DL-03-C-11	BLOCK OF FLATS		DUBLIN
	WYCKHAM WAY DUBLIN DUNDRUM Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings:		96	
	Survey date: TUESDAY		10/09/13	Survey Type: MANUAL
10	DL-03-C-13	BLOCK OF FLATS		DUBLIN
	SANDYFORD ROAD DUBLIN Neighbourhood Centre (PPS6 Local Centre) Built-Up Zone Total No of Dwellings:		52	
	Survey date: TUESDAY		10/09/13	Survey Type: MANUAL
11	DV-03-C-01	BLOCK OF FLATS		DEVON
	BONHAY ROAD EXETER Edge of Town Centre Residential Zone Total No of Dwellings:		27	
	Survey date: MONDAY		10/07/17	Survey Type: MANUAL
12	EX-03-C-01	FLATS		ESSEX
	WESTCLIFF PARADE SOUTHEND-ON-SEA WESTCLIFF Edge of Town Centre Residential Zone Total No of Dwellings:		6	
	Survey date: TUESDAY		22/10/13	Survey Type: MANUAL
13	EX-03-C-02	BLOCK OF FLATS		ESSEX
	WESTCLIFF PARADE SOUTHEND-ON-SEA WESTCLIFF Edge of Town Centre Residential Zone Total No of Dwellings:		94	
	Survey date: TUESDAY		22/10/13	Survey Type: MANUAL
14	HC-03-C-01	BLOCKS OF FLATS		HAMPSHIRE
	CROSS STREET PORTSMOUTH Edge of Town Centre Built-Up Zone Total No of Dwellings:		90	
	Survey date: TUESDAY		05/06/18	Survey Type: MANUAL
15	HF-03-C-03	BLOCK OF FLATS		HERTFORDSHIRE
	SHENLEY ROAD BOREHAMWOOD Edge of Town Centre Built-Up Zone Total No of Dwellings:		91	
	Survey date: THURSDAY		14/11/19	Survey Type: MANUAL
16	HG-03-C-01	BLOCKS OF FLATS		HARINGEY
	BREAM CLOSE TOTTENHAM HALE Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings:		255	
	Survey date: TUESDAY		18/06/19	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

ID	Code	Block Type	Address	Location	Zone	Total No of Dwellings	Survey date	Survey Type
17	HM-03-C-01	BLOCK OF FLATS	VANSTON PLACE FULHAM	HAMMERSMITH AND FULHAM	Town Centre High Street	42	16/07/14	MANUAL
18	HM-03-C-02	BLOCKS OF FLATS	GLENTHORNE ROAD HAMMERSMITH	HAMMERSMITH AND FULHAM	Town Centre Built-Up Zone	194	30/04/19	MANUAL
19	HO-03-C-02	BLOCK OF FLATS	HIGH STREET BRENTFORD	HOUNSLOW	Town Centre Built-Up Zone	86	03/09/14	MANUAL
20	HO-03-C-03	BLOCKS OF FLATS	COMMERCE ROAD BRENTFORD	HOUNSLOW	Edge of Town Centre Development Zone	150	18/11/16	MANUAL
21	HO-03-C-04	BLOCKS OF FLATS	LONDON ROAD ISLEWORTH	HOUNSLOW	Neighbourhood Centre (PPS6 Local Centre) Residential Zone	203	03/07/18	MANUAL
22	IS-03-C-05	BLOCK OF FLATS	LEVER STREET FINSBURY	ISLINGTON	Edge of Town Centre Built-Up Zone	15	29/06/16	MANUAL
23	IS-03-C-06	BLOCK OF FLATS	CALEDONIAN ROAD HOLLOWAY	ISLINGTON	Edge of Town Centre Residential Zone	14	27/06/16	MANUAL
24	IS-03-C-07	BLOCK OF FLATS	CITY ROAD ISLINGTON	ISLINGTON	Edge of Town Centre Development Zone	185	06/06/19	MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

25	KI-03-C-03 PORTSMOUTH ROAD SURBITON	BLOCK OF FLATS		KINGSTON
	Edge of Town Centre Residential Zone Total No of Dwellings:		20 11/07/16	
	Survey date: MONDAY			Survey Type: MANUAL
26	LE-03-C-01 NEW STREET LEICESTER OADBY	BLOCK OF FLATS		LEICESTERSHIRE
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings:		19 16/10/20	
	Survey date: FRIDAY			Survey Type: MANUAL
27	LU-03-C-01 DONORE ROAD DROGHEDA	BLOCKS OF FLATS		LOUTH
	Edge of Town Centre Residential Zone Total No of Dwellings:		52 12/09/13	
	Survey date: THURSDAY			Survey Type: MANUAL
28	LU-03-C-02 NICHOLAS STREET DUNDALK	BLOCK OF FLATS		LOUTH
	Edge of Town Centre Residential Zone Total No of Dwellings:		33 16/09/13	
	Survey date: MONDAY			Survey Type: MANUAL
29	LU-03-C-03 NICHOLAS STREET DUNDALK	BLOCK OF FLATS		LOUTH
	Edge of Town Centre Residential Zone Total No of Dwellings:		20 16/09/13	
	Survey date: MONDAY			Survey Type: MANUAL
30	MG-03-C-01 MALL ROAD MONAGHAN	BLOCK OF FLATS		MONAGHAN
	Edge of Town Centre No Sub Category Total No of Dwellings:		28 06/09/13	
	Survey date: FRIDAY			Survey Type: MANUAL
31	NF-03-C-01 PAGE STAIR LANE KING'S LYNN	BLOCKS OF FLATS		NORFOLK
	Edge of Town Centre Built-Up Zone Total No of Dwellings:		51 11/12/14	
	Survey date: THURSDAY			Survey Type: MANUAL
32	NH-03-C-01 ARTHINGWORTH STREET STRATFORD	BLOCK OF FLATS		NEWHAM
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings:		12 14/11/13	
	Survey date: THURSDAY			Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

33	SA-03-C-01 RACECOURSE ROAD AYR	BLOCK OF FLATS		SOUTH AYRSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:		51 16/09/14	Survey Type: MANUAL
	Survey date: TUESDAY			
34	SF-03-C-01 STATION HILL BURY ST EDMUNDS	BLOCKS OF FLATS		SUFFOLK
	Edge of Town Centre Built-Up Zone Total No of Dwellings:		85 18/12/14	Survey Type: MANUAL
	Survey date: THURSDAY			
35	SK-03-C-01 PARK STREET SOUTHWARK	BLOCK OF FLATS		SOUTHWARK
	Edge of Town Centre Built-Up Zone Total No of Dwellings:		53 19/09/14	Survey Type: MANUAL
	Survey date: FRIDAY			
36	SK-03-C-02 LAMB WALK BERMONDSEY	BLOCK OF FLATS		SOUTHWARK
	Edge of Town Centre Built-Up Zone Total No of Dwellings:		29 23/04/15	Survey Type: MANUAL
	Survey date: THURSDAY			
37	SK-03-C-03 MARITIME STREET SURREY QUAYS	BLOCKS OF FLATS		SOUTHWARK
	Neighbourhood Centre (PPS6 Local Centre) Development Zone Total No of Dwellings:		233 14/11/19	Survey Type: MANUAL
	Survey date: THURSDAY			
38	SR-03-C-01 FORTHESIDE WAY STIRLING	FLATS		STIRLING
	Edge of Town Centre No Sub Category Total No of Dwellings:		80 18/06/14	Survey Type: MANUAL
	Survey date: WEDNESDAY			
39	SR-03-C-02 ROSEBERRY TERRACE STIRLING	FLATS		STIRLING
	Edge of Town Centre Residential Zone Total No of Dwellings:		48 18/06/14	Survey Type: MANUAL
	Survey date: WEDNESDAY			
40	SY-03-C-01 HEELIS STREET BARNSELY	BLOCKS OF FLATS		SOUTH YORKSHIRE
	Edge of Town Centre Built-Up Zone Total No of Dwellings:		112 08/09/20	Survey Type: MANUAL
	Survey date: TUESDAY			

LIST OF SITES relevant to selection parameters (Cont.)

<p>41 TH-03-C-04</p> <p>LEVEN ROAD POPLAR ABERFELDY VILLAGE Neighbourhood Centre (PPS6 Local Centre) No Sub Category Total No of Dwellings: 83 Survey date: FRIDAY 21/06/19</p>	<p>BLOCK OF FLATS</p>	<p>TOWER HAMLETS</p> <p>Survey Type: MANUAL</p>
<p>42 WF-03-C-01</p> <p>ERSKINE ROAD WALTHAMSTOW Edge of Town Centre Residential Zone Total No of Dwellings: 73 Survey date: TUESDAY 05/11/19</p>	<p>BLOCKS OF FLATS</p>	<p>WALTHAM FOREST</p> <p>Survey Type: MANUAL</p>
<p>43 WM-03-C-04</p> <p>GILLQUART WAY COVENTRY PARKSIDE Edge of Town Centre Residential Zone Total No of Dwellings: 55 Survey date: FRIDAY 11/11/16</p>	<p>BLOCKS OF FLATS</p>	<p>WEST MIDLANDS</p> <p>Survey Type: MANUAL</p>

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.031	43	81	0.103	43	81	0.134
08:00 - 09:00	43	81	0.040	43	81	0.119	43	81	0.159
09:00 - 10:00	43	81	0.049	43	81	0.059	43	81	0.108
10:00 - 11:00	43	81	0.052	43	81	0.064	43	81	0.116
11:00 - 12:00	43	81	0.053	43	81	0.063	43	81	0.116
12:00 - 13:00	43	81	0.068	43	81	0.067	43	81	0.135
13:00 - 14:00	43	81	0.054	43	81	0.062	43	81	0.116
14:00 - 15:00	43	81	0.046	43	81	0.054	43	81	0.100
15:00 - 16:00	43	81	0.068	43	81	0.052	43	81	0.120
16:00 - 17:00	43	81	0.089	43	81	0.059	43	81	0.148
17:00 - 18:00	43	81	0.114	43	81	0.064	43	81	0.178
18:00 - 19:00	43	81	0.125	43	81	0.074	43	81	0.199
19:00 - 20:00	14	106	0.069	14	106	0.049	14	106	0.118
20:00 - 21:00	14	106	0.037	14	106	0.035	14	106	0.072
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.895			0.924			1.819

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 6 - 255 (units:)
 Survey date date range: 01/01/13 - 23/10/20
 Number of weekdays (Monday-Friday): 43
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 1
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Apartment Trip Rates

Licence No: 638801

DBFL Ormond House Dublin

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TAXIS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.004	43	81	0.004	43	81	0.008
08:00 - 09:00	43	81	0.003	43	81	0.003	43	81	0.006
09:00 - 10:00	43	81	0.005	43	81	0.005	43	81	0.010
10:00 - 11:00	43	81	0.004	43	81	0.004	43	81	0.008
11:00 - 12:00	43	81	0.005	43	81	0.005	43	81	0.010
12:00 - 13:00	43	81	0.005	43	81	0.005	43	81	0.010
13:00 - 14:00	43	81	0.003	43	81	0.003	43	81	0.006
14:00 - 15:00	43	81	0.002	43	81	0.002	43	81	0.004
15:00 - 16:00	43	81	0.003	43	81	0.003	43	81	0.006
16:00 - 17:00	43	81	0.003	43	81	0.003	43	81	0.006
17:00 - 18:00	43	81	0.005	43	81	0.005	43	81	0.010
18:00 - 19:00	43	81	0.008	43	81	0.008	43	81	0.016
19:00 - 20:00	14	106	0.010	14	106	0.010	14	106	0.020
20:00 - 21:00	14	106	0.005	14	106	0.005	14	106	0.010
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.067			0.066			0.133

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Apartment Trip Rates

Licence No: 638801

DBFL Ormond House Dublin

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.001	43	81	0.002	43	81	0.003
08:00 - 09:00	43	81	0.001	43	81	0.001	43	81	0.002
09:00 - 10:00	43	81	0.003	43	81	0.003	43	81	0.006
10:00 - 11:00	43	81	0.002	43	81	0.002	43	81	0.004
11:00 - 12:00	43	81	0.003	43	81	0.002	43	81	0.005
12:00 - 13:00	43	81	0.001	43	81	0.002	43	81	0.003
13:00 - 14:00	43	81	0.001	43	81	0.002	43	81	0.003
14:00 - 15:00	43	81	0.001	43	81	0.001	43	81	0.002
15:00 - 16:00	43	81	0.001	43	81	0.001	43	81	0.002
16:00 - 17:00	43	81	0.000	43	81	0.001	43	81	0.001
17:00 - 18:00	43	81	0.000	43	81	0.000	43	81	0.000
18:00 - 19:00	43	81	0.000	43	81	0.000	43	81	0.000
19:00 - 20:00	14	106	0.000	14	106	0.000	14	106	0.000
20:00 - 21:00	14	106	0.000	14	106	0.000	14	106	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.017			0.031

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.000	43	81	0.001	43	81	0.001
08:00 - 09:00	43	81	0.000	43	81	0.000	43	81	0.000
09:00 - 10:00	43	81	0.000	43	81	0.000	43	81	0.000
10:00 - 11:00	43	81	0.000	43	81	0.000	43	81	0.000
11:00 - 12:00	43	81	0.000	43	81	0.001	43	81	0.001
12:00 - 13:00	43	81	0.000	43	81	0.001	43	81	0.001
13:00 - 14:00	43	81	0.000	43	81	0.000	43	81	0.000
14:00 - 15:00	43	81	0.000	43	81	0.000	43	81	0.000
15:00 - 16:00	43	81	0.000	43	81	0.000	43	81	0.000
16:00 - 17:00	43	81	0.000	43	81	0.001	43	81	0.001
17:00 - 18:00	43	81	0.000	43	81	0.000	43	81	0.000
18:00 - 19:00	43	81	0.000	43	81	0.000	43	81	0.000
19:00 - 20:00	14	106	0.000	14	106	0.000	14	106	0.000
20:00 - 21:00	14	106	0.000	14	106	0.000	14	106	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.004			0.004

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

CYCLISTS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.002	43	81	0.011	43	81	0.013
08:00 - 09:00	43	81	0.003	43	81	0.020	43	81	0.023
09:00 - 10:00	43	81	0.003	43	81	0.007	43	81	0.010
10:00 - 11:00	43	81	0.003	43	81	0.008	43	81	0.011
11:00 - 12:00	43	81	0.004	43	81	0.005	43	81	0.009
12:00 - 13:00	43	81	0.001	43	81	0.004	43	81	0.005
13:00 - 14:00	43	81	0.004	43	81	0.001	43	81	0.005
14:00 - 15:00	43	81	0.005	43	81	0.003	43	81	0.008
15:00 - 16:00	43	81	0.005	43	81	0.003	43	81	0.008
16:00 - 17:00	43	81	0.005	43	81	0.001	43	81	0.006
17:00 - 18:00	43	81	0.008	43	81	0.003	43	81	0.011
18:00 - 19:00	43	81	0.010	43	81	0.003	43	81	0.013
19:00 - 20:00	14	106	0.015	14	106	0.002	14	106	0.017
20:00 - 21:00	14	106	0.005	14	106	0.002	14	106	0.007
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.073			0.073			0.146

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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Apartment Trip Rates

Licence No: 638801

DBFL Ormond House Dublin

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

CARS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.015	43	81	0.068	43	81	0.083
08:00 - 09:00	43	81	0.021	43	81	0.085	43	81	0.106
09:00 - 10:00	43	81	0.025	43	81	0.033	43	81	0.058
10:00 - 11:00	43	81	0.030	43	81	0.034	43	81	0.064
11:00 - 12:00	43	81	0.028	43	81	0.038	43	81	0.066
12:00 - 13:00	43	81	0.040	43	81	0.035	43	81	0.075
13:00 - 14:00	43	81	0.025	43	81	0.032	43	81	0.057
14:00 - 15:00	43	81	0.027	43	81	0.034	43	81	0.061
15:00 - 16:00	43	81	0.045	43	81	0.031	43	81	0.076
16:00 - 17:00	43	81	0.058	43	81	0.032	43	81	0.090
17:00 - 18:00	43	81	0.079	43	81	0.043	43	81	0.122
18:00 - 19:00	43	81	0.083	43	81	0.049	43	81	0.132
19:00 - 20:00	14	106	0.044	14	106	0.026	14	106	0.070
20:00 - 21:00	14	106	0.026	14	106	0.024	14	106	0.050
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.546			0.564			1.110

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Apartment Trip Rates
DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.003	43	81	0.008	43	81	0.011
08:00 - 09:00	43	81	0.006	43	81	0.005	43	81	0.011
09:00 - 10:00	43	81	0.009	43	81	0.007	43	81	0.016
10:00 - 11:00	43	81	0.009	43	81	0.011	43	81	0.020
11:00 - 12:00	43	81	0.009	43	81	0.011	43	81	0.020
12:00 - 13:00	43	81	0.013	43	81	0.012	43	81	0.025
13:00 - 14:00	43	81	0.009	43	81	0.012	43	81	0.021
14:00 - 15:00	43	81	0.006	43	81	0.007	43	81	0.013
15:00 - 16:00	43	81	0.009	43	81	0.008	43	81	0.017
16:00 - 17:00	43	81	0.011	43	81	0.009	43	81	0.020
17:00 - 18:00	43	81	0.007	43	81	0.005	43	81	0.012
18:00 - 19:00	43	81	0.005	43	81	0.003	43	81	0.008
19:00 - 20:00	14	106	0.006	14	106	0.006	14	106	0.012
20:00 - 21:00	14	106	0.001	14	106	0.000	14	106	0.001
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.103			0.104			0.207

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MOTOR CYCLES

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	81	0.001	43	81	0.001	43	81	0.002
08:00 - 09:00	43	81	0.001	43	81	0.002	43	81	0.003
09:00 - 10:00	43	81	0.001	43	81	0.001	43	81	0.002
10:00 - 11:00	43	81	0.002	43	81	0.002	43	81	0.004
11:00 - 12:00	43	81	0.001	43	81	0.000	43	81	0.001
12:00 - 13:00	43	81	0.001	43	81	0.002	43	81	0.003
13:00 - 14:00	43	81	0.002	43	81	0.002	43	81	0.004
14:00 - 15:00	43	81	0.001	43	81	0.001	43	81	0.002
15:00 - 16:00	43	81	0.002	43	81	0.001	43	81	0.003
16:00 - 17:00	43	81	0.003	43	81	0.003	43	81	0.006
17:00 - 18:00	43	81	0.003	43	81	0.002	43	81	0.005
18:00 - 19:00	43	81	0.005	43	81	0.004	43	81	0.009
19:00 - 20:00	14	106	0.009	14	106	0.007	14	106	0.016
20:00 - 21:00	14	106	0.005	14	106	0.005	14	106	0.010
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.037			0.033			0.070

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	BN BARNET	1 days
	HG HARINGEY	1 days
	HO HOUNSLOW	1 days
	WF WALTHAM FOREST	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
	WM WEST MIDLANDS	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days
	DH DURHAM	1 days
10	WALES	
	PS POWYS	1 days
12	CONNAUGHT	
	LT LEITRIM	1 days
14	LEINSTER	
	WC WICKLOW	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 9 to 180 (units:)
 Range Selected by User: 4 to 4334 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 20/10/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	9 days
Tuesday	5 days
Wednesday	1 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	18 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town Centre

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	16
High Street	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	18 days
----	---------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	4 days
10,001 to 15,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	5 days
50,001 to 100,000	4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	7 days
125,001 to 250,000	2 days
250,001 to 500,000	5 days
500,001 or More	4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	10 days
1.1 to 1.5	7 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	17 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	14 days
2 Poor	1 days
3 Moderate	1 days
4 Good	1 days
5 Very Good	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

<p>1 BN-03-A-03 MIXED HOUSES SWEETS WAY WHETSTONE</p> <p>Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 133 <i>Survey date: TUESDAY 10/09/19</i></p>	<p>BARNET</p> <p><i>Survey Type: MANUAL</i></p>
<p>2 CB-03-A-05 DETACHED/TERRACED HOUSING MACADAM WAY PENRITH</p> <p>Edge of Town Centre Residential Zone Total No of Dwellings: 50 <i>Survey date: TUESDAY 21/06/16</i></p>	<p>CUMBRIA</p> <p><i>Survey Type: MANUAL</i></p>
<p>3 DH-03-A-02 MIXED HOUSES LEAZES LANE BISHOP AUCKLAND ST HELEN AUCKLAND Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 125 <i>Survey date: MONDAY 27/03/17</i></p>	<p>DURHAM</p> <p><i>Survey Type: MANUAL</i></p>
<p>4 GM-03-A-11 TERRACED & SEMI-DETACHED RUSHFORD STREET MANCHESTER LEVENSHULME Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total No of Dwellings: 37 <i>Survey date: MONDAY 26/09/16</i></p>	<p>GREATER MANCHESTER</p> <p><i>Survey Type: MANUAL</i></p>
<p>5 HG-03-A-01 DETACHED & SEMI-DETACHED LAWRENCE ROAD TOTTENHAM WEST GREEN Neighbourhood Centre (PPS6 Local Centre) High Street Total No of Dwellings: 20 <i>Survey date: TUESDAY 05/11/19</i></p>	<p>HARINGEY</p> <p><i>Survey Type: MANUAL</i></p>
<p>6 HO-03-A-02 MIXED HOUSES HIBERNIAN ROAD HOUNSLOW</p> <p>Edge of Town Centre Residential Zone Total No of Dwellings: 50 <i>Survey date: MONDAY 29/06/15</i></p>	<p>HOUNSLOW</p> <p><i>Survey Type: MANUAL</i></p>
<p>7 LC-03-A-30 SEMI-DETACHED WATSON ROAD BLACKPOOL</p> <p>Edge of Town Centre Residential Zone Total No of Dwellings: 24 <i>Survey date: FRIDAY 14/06/13</i></p>	<p>LANCASHIRE</p> <p><i>Survey Type: MANUAL</i></p>
<p>8 LN-03-A-04 DETACHED & SEMI-DETACHED EGERTON ROAD LINCOLN</p> <p>Edge of Town Centre Residential Zone Total No of Dwellings: 30 <i>Survey date: MONDAY 29/06/15</i></p>	<p>LINCOLNSHIRE</p> <p><i>Survey Type: MANUAL</i></p>
<p>9 LT-03-A-02 BUNGALOWS ARD ALAINN CARRICK-ON-SHANNON GALLOW'S HILL Edge of Town Centre Residential Zone Total No of Dwellings: 10 <i>Survey date: MONDAY 22/05/17</i></p>	<p>LEITRIM</p> <p><i>Survey Type: MANUAL</i></p>

House Trip Rates

DBFL Ormond House Dublin

Licence No: 638801

LIST OF SITES relevant to selection parameters (Cont.)

			NORTH EAST LINCOLNSHIRE
10	NE-03-A-03 STATION ROAD SCUNTHORPE	PRIVATE HOUSES	
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	180	
	Survey date: TUESDAY	20/05/14	Survey Type: MANUAL
11	NY-03-A-12 RACECOURSE LANE NORTHALLERTON	TOWN HOUSES	NORTH YORKSHIRE
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	47	
	Survey date: TUESDAY	27/09/16	Survey Type: MANUAL
12	PS-03-A-01 BRYN GLAS WELSHPOOL	MIXED HOUSES	POWYS
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	16	
	Survey date: MONDAY	11/05/15	Survey Type: MANUAL
13	ST-03-A-06 STANFORD ROAD WOLVERHAMPTON BLAKENHALL	SEMI-DET. & TERRACED	STAFFORDSHIRE
	Edge of Town Centre No Sub Category		
	Total No of Dwellings:	17	
	Survey date: FRIDAY	09/05/14	Survey Type: MANUAL
14	WC-03-A-02 MARLTON ROAD WICKLOW FRIARSHILL	DETACHED HOUSES	WICKLOW
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	45	
	Survey date: MONDAY	28/05/18	Survey Type: MANUAL
15	WF-03-A-02 PALMERSTON ROAD WALTHAMSTOW	SEMI DETACHED & TERRACED	WALTHAM FOREST
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	9	
	Survey date: THURSDAY	06/06/19	Survey Type: MANUAL
16	WM-03-A-04 OSBORNE ROAD COVENTRY EARLSDON	TERRACED HOUSES	WEST MIDLANDS
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone		
	Total No of Dwellings:	39	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL
17	WM-03-A-05 COUNDON ROAD COVENTRY	TERRACED & DETACHED	WEST MIDLANDS
	Edge of Town Centre Residential Zone		
	Total No of Dwellings:	89	
	Survey date: MONDAY	21/11/16	Survey Type: MANUAL
18	WY-03-A-01 SPRING VALLEY CRESCENT LEEDS BRAMLEY	MIXED HOUSING	WEST YORKSHIRE
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone		
	Total No of Dwellings:	46	
	Survey date: WEDNESDAY	21/09/16	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.061	18	54	0.178	18	54	0.239
08:00 - 09:00	18	54	0.134	18	54	0.301	18	54	0.435
09:00 - 10:00	18	54	0.135	18	54	0.130	18	54	0.265
10:00 - 11:00	18	54	0.100	18	54	0.124	18	54	0.224
11:00 - 12:00	18	54	0.132	18	54	0.119	18	54	0.251
12:00 - 13:00	18	54	0.113	18	54	0.120	18	54	0.233
13:00 - 14:00	18	54	0.132	18	54	0.137	18	54	0.269
14:00 - 15:00	18	54	0.135	18	54	0.148	18	54	0.283
15:00 - 16:00	18	54	0.205	18	54	0.163	18	54	0.368
16:00 - 17:00	18	54	0.180	18	54	0.118	18	54	0.298
17:00 - 18:00	18	54	0.201	18	54	0.134	18	54	0.335
18:00 - 19:00	18	54	0.181	18	54	0.151	18	54	0.332
19:00 - 20:00	4	53	0.241	4	53	0.137	4	53	0.378
20:00 - 21:00	4	53	0.189	4	53	0.113	4	53	0.302
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.139			2.073			4.212

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 9 - 180 (units:)
 Survey date range: 01/01/13 - 20/10/20
 Number of weekdays (Monday-Friday): 18
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 1
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

House Trip Rates

DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TAXIS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.003	18	54	0.004	18	54	0.007
08:00 - 09:00	18	54	0.004	18	54	0.004	18	54	0.008
09:00 - 10:00	18	54	0.003	18	54	0.002	18	54	0.005
10:00 - 11:00	18	54	0.004	18	54	0.004	18	54	0.008
11:00 - 12:00	18	54	0.000	18	54	0.001	18	54	0.001
12:00 - 13:00	18	54	0.001	18	54	0.001	18	54	0.002
13:00 - 14:00	18	54	0.006	18	54	0.003	18	54	0.009
14:00 - 15:00	18	54	0.001	18	54	0.003	18	54	0.004
15:00 - 16:00	18	54	0.003	18	54	0.005	18	54	0.008
16:00 - 17:00	18	54	0.002	18	54	0.002	18	54	0.004
17:00 - 18:00	18	54	0.002	18	54	0.001	18	54	0.003
18:00 - 19:00	18	54	0.003	18	54	0.004	18	54	0.007
19:00 - 20:00	4	53	0.000	4	53	0.000	4	53	0.000
20:00 - 21:00	4	53	0.000	4	53	0.000	4	53	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.032			0.034			0.066

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

House Trip Rates

DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

OGVS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.004	18	54	0.004	18	54	0.008
08:00 - 09:00	18	54	0.004	18	54	0.004	18	54	0.008
09:00 - 10:00	18	54	0.006	18	54	0.004	18	54	0.010
10:00 - 11:00	18	54	0.003	18	54	0.003	18	54	0.006
11:00 - 12:00	18	54	0.004	18	54	0.003	18	54	0.007
12:00 - 13:00	18	54	0.002	18	54	0.002	18	54	0.004
13:00 - 14:00	18	54	0.004	18	54	0.004	18	54	0.008
14:00 - 15:00	18	54	0.003	18	54	0.003	18	54	0.006
15:00 - 16:00	18	54	0.002	18	54	0.004	18	54	0.006
16:00 - 17:00	18	54	0.003	18	54	0.002	18	54	0.005
17:00 - 18:00	18	54	0.001	18	54	0.001	18	54	0.002
18:00 - 19:00	18	54	0.001	18	54	0.001	18	54	0.002
19:00 - 20:00	4	53	0.014	4	53	0.009	4	53	0.023
20:00 - 21:00	4	53	0.000	4	53	0.005	4	53	0.005
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.051			0.049			0.100

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

House Trip Rates

DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.001	18	54	0.001	18	54	0.002
08:00 - 09:00	18	54	0.001	18	54	0.001	18	54	0.002
09:00 - 10:00	18	54	0.000	18	54	0.000	18	54	0.000
10:00 - 11:00	18	54	0.000	18	54	0.000	18	54	0.000
11:00 - 12:00	18	54	0.000	18	54	0.000	18	54	0.000
12:00 - 13:00	18	54	0.000	18	54	0.000	18	54	0.000
13:00 - 14:00	18	54	0.000	18	54	0.000	18	54	0.000
14:00 - 15:00	18	54	0.000	18	54	0.002	18	54	0.002
15:00 - 16:00	18	54	0.000	18	54	0.000	18	54	0.000
16:00 - 17:00	18	54	0.003	18	54	0.003	18	54	0.006
17:00 - 18:00	18	54	0.000	18	54	0.000	18	54	0.000
18:00 - 19:00	18	54	0.000	18	54	0.000	18	54	0.000
19:00 - 20:00	4	53	0.000	4	53	0.000	4	53	0.000
20:00 - 21:00	4	53	0.000	4	53	0.000	4	53	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.007			0.012

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

House Trip Rates

DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

CYCLISTS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.002	18	54	0.016	18	54	0.018
08:00 - 09:00	18	54	0.004	18	54	0.011	18	54	0.015
09:00 - 10:00	18	54	0.003	18	54	0.003	18	54	0.006
10:00 - 11:00	18	54	0.003	18	54	0.006	18	54	0.009
11:00 - 12:00	18	54	0.003	18	54	0.002	18	54	0.005
12:00 - 13:00	18	54	0.006	18	54	0.004	18	54	0.010
13:00 - 14:00	18	54	0.005	18	54	0.005	18	54	0.010
14:00 - 15:00	18	54	0.006	18	54	0.009	18	54	0.015
15:00 - 16:00	18	54	0.008	18	54	0.002	18	54	0.010
16:00 - 17:00	18	54	0.011	18	54	0.007	18	54	0.018
17:00 - 18:00	18	54	0.009	18	54	0.009	18	54	0.018
18:00 - 19:00	18	54	0.016	18	54	0.009	18	54	0.025
19:00 - 20:00	4	53	0.009	4	53	0.000	4	53	0.009
20:00 - 21:00	4	53	0.019	4	53	0.000	4	53	0.019
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.104			0.083			0.187

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

House Trip Rates
DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

CARS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.036	18	54	0.123	18	54	0.159
08:00 - 09:00	18	54	0.074	18	54	0.208	18	54	0.282
09:00 - 10:00	18	54	0.077	18	54	0.080	18	54	0.157
10:00 - 11:00	18	54	0.065	18	54	0.075	18	54	0.140
11:00 - 12:00	18	54	0.089	18	54	0.077	18	54	0.166
12:00 - 13:00	18	54	0.073	18	54	0.072	18	54	0.145
13:00 - 14:00	18	54	0.084	18	54	0.092	18	54	0.176
14:00 - 15:00	18	54	0.091	18	54	0.090	18	54	0.181
15:00 - 16:00	18	54	0.139	18	54	0.109	18	54	0.248
16:00 - 17:00	18	54	0.121	18	54	0.072	18	54	0.193
17:00 - 18:00	18	54	0.150	18	54	0.080	18	54	0.230
18:00 - 19:00	18	54	0.144	18	54	0.096	18	54	0.240
19:00 - 20:00	4	53	0.203	4	53	0.104	4	53	0.307
20:00 - 21:00	4	53	0.165	4	53	0.085	4	53	0.250
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.511			1.363			2.874

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

House Trip Rates

DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

LGVS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.010	18	54	0.012	18	54	0.022
08:00 - 09:00	18	54	0.024	18	54	0.024	18	54	0.048
09:00 - 10:00	18	54	0.026	18	54	0.025	18	54	0.051
10:00 - 11:00	18	54	0.011	18	54	0.023	18	54	0.034
11:00 - 12:00	18	54	0.013	18	54	0.016	18	54	0.029
12:00 - 13:00	18	54	0.011	18	54	0.020	18	54	0.031
13:00 - 14:00	18	54	0.017	18	54	0.014	18	54	0.031
14:00 - 15:00	18	54	0.013	18	54	0.012	18	54	0.025
15:00 - 16:00	18	54	0.019	18	54	0.016	18	54	0.035
16:00 - 17:00	18	54	0.014	18	54	0.005	18	54	0.019
17:00 - 18:00	18	54	0.019	18	54	0.012	18	54	0.031
18:00 - 19:00	18	54	0.012	18	54	0.014	18	54	0.026
19:00 - 20:00	4	53	0.014	4	53	0.024	4	53	0.038
20:00 - 21:00	4	53	0.014	4	53	0.019	4	53	0.033
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.217			0.236			0.453

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

House Trip Rates

DBFL Ormond House Dublin

Licence No: 638801

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MOTOR CYCLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	54	0.001	18	54	0.001	18	54	0.002
08:00 - 09:00	18	54	0.000	18	54	0.000	18	54	0.000
09:00 - 10:00	18	54	0.002	18	54	0.001	18	54	0.003
10:00 - 11:00	18	54	0.000	18	54	0.000	18	54	0.000
11:00 - 12:00	18	54	0.000	18	54	0.003	18	54	0.003
12:00 - 13:00	18	54	0.001	18	54	0.000	18	54	0.001
13:00 - 14:00	18	54	0.000	18	54	0.000	18	54	0.000
14:00 - 15:00	18	54	0.001	18	54	0.002	18	54	0.003
15:00 - 16:00	18	54	0.000	18	54	0.000	18	54	0.000
16:00 - 17:00	18	54	0.001	18	54	0.000	18	54	0.001
17:00 - 18:00	18	54	0.000	18	54	0.000	18	54	0.000
18:00 - 19:00	18	54	0.003	18	54	0.004	18	54	0.007
19:00 - 20:00	4	53	0.009	4	53	0.000	4	53	0.009
20:00 - 21:00	4	53	0.009	4	53	0.005	4	53	0.014
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.027			0.016			0.043

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.



Appendix C : TRANSYT Output Files

TRANSYT 15

Version: 15.5.3.7
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For sales and distribution information, program advice and maintenance, contact TRL
+44 (0)1344 379777 software@trl.co.uk www.trafficware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Junction 2 - DS Scenarios.t15
Path: G:\2022\p220047\calcs\transyt
Report generation date: 26/09/2022 14:48:43

- >A1 - DS+CSLS 2024 AM : D1 - DS+CSLS 2024 AM* :
- >A2 - DS+CSLS 2024 PM : D2 - DS+CSLS 2024 PM* :
- >A3 - DS+CSLS 2029 AM : D3 - DS+CSLS 2029 AM* :
- >A4 - DS+CSLS 2029 PM : D4 - DS+CSLS 2029 PM* :
- >A5 - DS+Full SDZ 2039 AM : D5 - DS+Full SDZ 2039 AM* :
- >A6 - DS+Full SDZ 2039 PM : D6 - DS+Full SDZ 2039 PM* :
- >A7 - DM+CSLS 2024 AM : D7 - DM+CSLS 2024 AM* :
- >A8 - DM+CSLS 2024 PM : D8 - DM+CSLS 2024 PM* :
- >A9 - DM+CSLS 2029 AM : D9 - DM+CSLS 2029 AM* :
- >A10 - DM+CSLS 2029 PM : D10 - DM+CSLS 2029 PM* :
- >A11 - DM+Full SDZ 2039 AM : D11 - DM+Full SDZ 2039 AM* :
- >A12 - DM+Full SDZ 2039 PM : D12 - DM+Full SDZ 2039 PM* :

File summary

File title (untitled)
Location
Site number
UTCRegion
Driving side Left
Date 27/07/2020
Version
Status (new file)
Identifier
Client
Jobnumber
Enumerator HEADOFFICE\gendph
Description

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick journey times	Enable journey time service	Display level of service results	Display braking and green start results	Display end of red and green queue results	Display excess queue results	Display separate uniform random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber

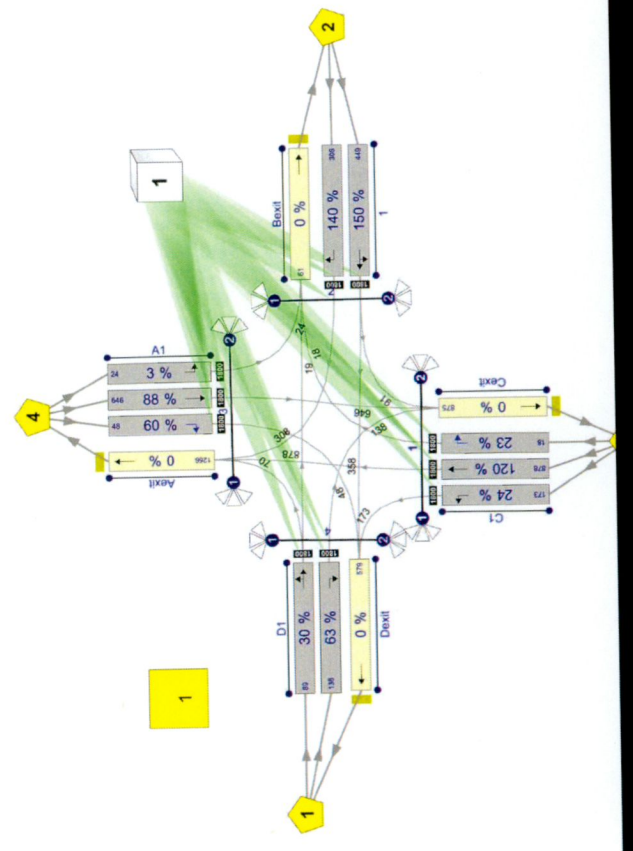
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic input units	Traffic units	Traffic units	Flow units	Average delay units	Total delay units	Rate of delay units
£	km/h	m	mpg	l/h	kg	PCU	PCU	PCU	perHour	s	-Hour	perhour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



A1 - DS+CSLS 2024 AM D1 - DS+CSLS 2024 AM*

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with signalised PRC	Item with unsignalised PRC	Item with set over PR
1	26/09/2022 14:48:23	26/09/2022 14:48:25	08:00	100	818.16	55.88	107.17	A1/2	1	5	A1/2	Bexhill	A1/

Analysis Set Details

Name	Description	Demand set	Include	In report	Locked
DS+CSLS 2024 AM		D1	<input checked="" type="checkbox"/>		

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:MM)	Locked
DS+CSLS 2024 AM				08:00	Locked

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input checked="" type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Pipeline Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Exclude pedestrians from delay calculation	Random delay mode	Type of Vehicle-in-Service parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Complex	Uniform (TRANSYT)	5.75		<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻¹ ·2)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻¹ ·2)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type	Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, -1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	1		Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic mode
(ALL)			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
Axlit	1			✓	245.07						Normal	
Bexit	1			✓	274.64						Normal	
Cexit	1			✓	243.53						Normal	
Dexit	1			✓	263.00						Normal	
	1			✓	20.76		Sum of lanes	1800	✓		Normal	
A1	2				51.65	✓	Sum of lanes	1800	✓		Normal	
	3				51.65	✓	Sum of lanes	1800	✓		Normal	
B1	1				26.15	✓	Sum of lanes	1800	✓		Normal	
	2				26.15	✓	Sum of lanes	1800	✓		Normal	
C1	1				25.24	✓	Sum of lanes	1800	✓		Normal	
	2				30.30	✓	Sum of lanes	1800	✓		Normal	
	3				30.30	✓	Sum of lanes	1800	✓		Normal	
D1	1				25.11	✓	Sum of lanes	1800	✓		Normal	
	2				25.11	✓	Sum of lanes	1800	✓		Normal	

LANES

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Axlit	1	1	(untitled)			
Bexit	1	1	(untitled)			
Cexit	1	1	(untitled)			
Dexit	1	1	(untitled)			
	1	1	(untitled)			1800
A1	2	1	(untitled)			1800
	3	1	(untitled)			1800
B1	1	1	(untitled)			1800
	2	1	(untitled)			1800
C1	1	1	(untitled)			1800
	2	1	(untitled)			1800
	3	1	(untitled)			1800
D1	1	1	(untitled)			1800
	2	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Axlit	1	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
	1	NetworkDefault	100	100	100		3.00		
A1	2	NetworkDefault	100	100	100		8.00		
	3	NetworkDefault	100	100	100		8.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
	1	NetworkDefault	100	100	100		4.00		
C1	2	NetworkDefault	100	100	100		5.00		
	3	NetworkDefault	100	100	100		5.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-In-Service	Vehicle-In-Service	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	180

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
Axlit	1	639	639
Bexit	1	105	105
Cexit	1	774	774
Dexit	1	100	100
	1	21	21
A1	2	643	643
	3	31	31
B1	1	46	46
	2	38	38
	1	28	28
C1	2	526	526
	3	26	26
D1	1	133	133
	2	126	126

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
	1	1	C	
A1	2	1	B	
	3	1	A	
B1	1	1	E	
	2	1	D	
	1	1	F	
C1	2	1	G	
	3	1	H	
	1	1	I	
D1	2	1	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)				Parade	20.37	13.55	5.40
2	(untitled)				Parade	12.44	8.29	5.40
3	(untitled)				Parade	20.29	13.53	5.40
4	(untitled)				Parade	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Excludes from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on turns	Allow looped paths on traffic nodes	Copy flow from	Matrix to paths by length	Limit by length multiplier	Path length limit	Limit by number	Path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	1.25		

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	0	56	126	75	
2	41	0	5	39	
3	28	26	0	526	
4	31	21	643	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	(untitled)	D1/1, D1/2	Dexit/1	Dexit/1	#0000FF
2	(untitled)	B1/1, B1/2	Bexit/1	Bexit/1	#FF0000
3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	Cexit/1	#00FF00
4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	Aexit/1	#FF0000

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	28
	2		3	2	C1/3, Bexit/1	Normal	26
	3		3	4	C1/2, Aexit/1	Normal	526
	4		4	1	A1/3, Dexit/1	Normal	31
	5		4	3	A1/2, Cexit/1	Normal	643
	6		4	2	A1/1, Bexit/1	Normal	21
	7		1	2	D1/1, Bexit/1	Normal	58
	8		1	4	D1/1, Aexit/1	Normal	75
	9		2	1	B1/1, Dexit/1	Normal	41
	10		2	3	B1/1, Cexit/1	Normal	5
	11		1	3	D1/2, Cexit/1	Normal	126
	12		2	4	B1/2, Aexit/1	Normal	36

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	48	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	E, I	1
	2	D, J	1
	3	M, K, N, L	1
	4	C, F, B, G	1
	5	H, A	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	I	1	2	3
	2	Losing	N	3	4	8
	3	Losing	L	3	4	8
	4	Losing	F	4	5	1
	5	Losing	B	4	5	1
	6	Losing	G	4	5	2
	7	Losing	A	5	1	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage lbs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	28, 64, 77, 156, 169

Intergreen Matrix for Controller Stream 1

		To													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A		5	5	6	6	6	5	5	5	5	5	5	5	8
	B			5	5	5	5	6	7	5	5	7			
	C					5	5	5	6	7	5	5	6		
	D							5	5	5	5	5	5	6	
	E									5	5	5	5	7	8
F											7	6	5	5	6
G															
H															
I															
J															
K															
L															
M															
N															

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	8	8	7	5
	2	5	0	8	5	6
	3	21	21	0	21	21
	4	7	5	7	0	7
	5	7	5	8	6	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phase in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	E,I	176	28	32	1	6
	2	✓	2	D,J	36	64	28	1	7
	3	✓	3	M,K,N,L	72	77	5	1	5
	4	✓	4	C,F,B,G	98	156	58	1	45
	5	✓	5	H,A	183	169	6	1	6

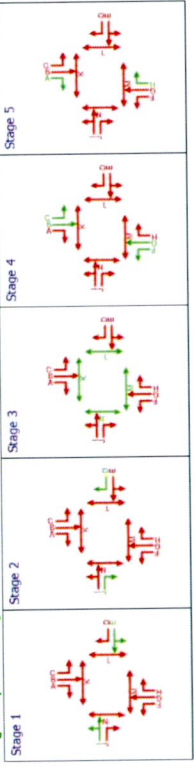
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	163	170	7
	B	1	✓	98	157	59
	C	1	✓	98	156	58
	D	1	✓	36	64	28
	E	1	✓	175	28	33
	F	1	✓	98	157	59
	G	1	✓	98	158	60
	H	1	✓	162	169	7
	I	1	✓	176	31	35
	J	1	✓	33	64	31
	K	1	✓	72	77	5
	L	1	✓	69	85	16
	M	1	✓	72	77	5
	N	1	✓	69	85	16

Traffic Stream Green Times

Am	Traffic Stream	Traffic Node	Controller Stream	Green Period 1	
				Start	End
AI	1		1	98	156
AI	2		1	98	157
AI	3		1	163	170
B1	1		1	175	28
B1	2		1	36	64
C1	1		1	98	157
C1	2		1	98	158
C1	3		1	162	169
D1	1		1	176	31
D1	2		1	33	64

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Am	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (per hr)	
08:00-09:00	Axat	1	0	Unrestricted	639	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		Baxit	1	0	Unrestricted	105	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Caxit	1	0	Unrestricted	731	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Daxit	1	0	Unrestricted	100	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	AI	2	107	4	2428	21	1800	58	41.32	0.71	23.74	3.42	0.18	3.60
		3	39	132	132	31	1900	7	97.57	1.63	20.34	11.93	0.40	12.33
		4	14	565	46	1800	33	61.61	1.91	47.86	11.18	0.46	11.65	
	B1	1	5	1629	28	1800	29	85.66	1.64	40.89	9.84	0.41	10.25	
		2	86	4	526	26	1800	60	72.69	27.05	540.93	150.81	6.68	157.49
	C1	1	37	144	133	1800	35	65.12	5.83	145.85	34.16	1.45	35.62	
		2	39	129	126	1800	31	69.06	5.69	142.30	34.32	1.41	35.74	
		3	37	144	133	1800	35	65.12	5.83	145.85	34.16	1.45	35.62	

Network Results

Run Summary

Analysis	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRG	Item with worst unsignalised PRG	No. of worst over PR
1	26/09/2022 14:48:23	26/09/2022 14:48:25	08:00	100	818.16	55.88	107.17	A1/2	1	5	A1/2	Box1/1	A1/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	107	-16	3193	1097	63.01	793.55	24.61	818.16

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
08:00-09:00	3193	3190	43	✓	107	✓	-16	1181

Network Results: Stops and delays

Time Segment	Mean Cruises Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.95	63.01	55.88	793.55	63.81	1962.90	24.61

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (£ per cycle)
08:00-09:00	708.94	0.00	475.00

Traffic Stream Results: Flows and signals

Time Segment	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s per cycle)
08:00-09:00	Aaxit	639	639	0		Unrestricted	Unrestricted	0		Unrestricted	0.87	180
	Baxit	105	105	0		Unrestricted	Unrestricted	0		Unrestricted	1.03	180
	Caxit	731	731	43	✓	Unrestricted	Unrestricted	0		Unrestricted	0.87	180
	Daxit	100	100	0		Unrestricted	Unrestricted	0		Unrestricted	1.05	180
	Ai	21	21	0		1800	590	4		2429	0.00	58
	B1	543	600	0		1800	600	107	✓	132	0.00	7
	C1	31	31	0		1800	80	39		565	0.00	33
	D1	46	46	0		1800	340	14		587	0.00	26
	B2	38	38	0		1800	290	13		1829	0.00	59
	C2	28	28	0		1800	600	5		4	0.00	60
	D2	526	526	0		1800	610	86		177	0.00	7
	D3	26	26	0		1800	80	33		144	0.00	35
D1	133	133	0		1800	360	37		129	0.00	31	
D2	126	126	0		1800	320	39		129	0.00	31	

Traffic Stream Results: Stops and delays

Time Segment	Traffic Stream	Mean Cruises Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aaxit	29.41	0.00	0.00	0.00	0.00	0.00	0.00
	Baxit	32.96	0.00	0.00	0.00	0.00	0.00	0.00
	Caxit	29.22	0.00	0.00	0.00	0.00	0.00	0.00
	Daxit	31.56	0.00	0.00	0.00	0.00	0.00	0.00
	Ai	2.49	41.32	0.24	3.42	67.16	14.11	0.18
	B1	6.20	206.49	36.88	523.72	173.23	1039.40	13.03
	C1	3.14	61.61	0.79	11.93	103.85	32.20	0.40
	D1	3.14	65.65	0.69	11.18	82.56	37.69	0.48
	B2	3.03	40.80	0.32	4.51	66.65	18.66	0.23
	C2	3.64	72.69	10.62	150.81	101.34	533.08	6.68
	D2	3.64	94.10	0.68	9.65	101.85	26.48	0.33
	D3	3.01	65.12	2.41	34.16	67.05	115.77	1.45
D1	3.01	69.06	2.42	34.32	69.51	112.78	1.41	

Traffic Stream Results: Queues and blocking

Time Segment	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (£ per cycle)	Estimated blocking
08:00-09:00	Aaxit	1	0.00	42.62	0.00	0.00	32.00	
	Baxit	1	0.00	47.76	0.00	0.00	107.00	
	Caxit	1	0.00	42.35	0.00	0.00	44.00	
	Daxit	1	0.00	45.74	0.00	0.00	112.00	
	Ai	1	0.00	0.71	3.00	23.74	57.00	
	B1	1	0.00	55.71	8.00	708.94	0.00	
	C1	1	0.00	1.83	8.00	20.34	5.00	
	D1	1	0.00	1.91	4.00	47.66	30.00	
	B2	1	0.00	1.64	4.00	40.69	25.00	
	C2	1	0.00	0.94	4.00	23.56	58.00	
	D2	1	0.00	1.33	5.00	540.93	0.00	
	D3	1	0.00	5.83	4.00	145.85	0.00	
D1	2	0.00	5.89	4.00	142.30	0.00		

A2 - DS+CSLS 2024 PM D2 - DS+CSLS 2024 PM*

Summary

Data Errors and Warnings
No errors or warnings

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst work over PR
2	26/09/2022 14:48:22	26/09/2022 14:48:23	17:00	100	362.58	24.35	67.18	A1/2	0	0	A1/2	Bexil/1	A1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DS+CSLS 2024 PM		D2	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:MM)	Locked
DS+CSLS 2024 PM				17:00	<input type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link delay weightings	Use link stop weightings	Exclude pedestrians from results calculation	Random delay modes	Type of Variable Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type	Default
Default	

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, -1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped/hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
	Axbit	1		✓	245.07						Normal	
	Bxbit	1		✓	274.64						Normal	
	Cxbit	1		✓	243.53						Normal	
	Dxbit	1		✓	263.00						Normal	
		1		✓	20.78	✓	Sum of lanes	1800	✓		Normal	
	A1	2		✓	51.65	✓	Sum of lanes	1800	✓		Normal	
		3		✓	51.65	✓	Sum of lanes	1800	✓		Normal	
	B1	1		✓	26.15	✓	Sum of lanes	1800	✓		Normal	
		2		✓	26.15	✓	Sum of lanes	1800	✓		Normal	
	C1	1		✓	25.24	✓	Sum of lanes	1800	✓		Normal	
		2		✓	30.30	✓	Sum of lanes	1800	✓		Normal	
		3		✓	30.30	✓	Sum of lanes	1800	✓		Normal	
	D1	1		✓	25.11	✓	Sum of lanes	1800	✓		Normal	
		2		✓	25.11	✓	Sum of lanes	1800	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
	Axbit	1	1	(unfilled)		
	Bxbit	1	1	(unfilled)		
	Cxbit	1	1	(unfilled)		
	Dxbit	1	1	(unfilled)		
		1	1	(unfilled)		1800
	A1	2	1	(unfilled)		1800
		3	1	(unfilled)		1800
	B1	1	1	(unfilled)		1800
		2	1	(unfilled)		1800
	C1	1	1	(unfilled)		1800
		2	1	(unfilled)		1800
		3	1	(unfilled)		1800
	D1	1	1	(unfilled)		1800
		2	1	(unfilled)		1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
	Axbit	1	NetworkDefault	100		0.00		
	Bxbit	1	NetworkDefault	100		0.00		
	Cxbit	1	NetworkDefault	100		0.00		
	Dxbit	1	NetworkDefault	100		0.00		
		1	NetworkDefault	100		3.00		
	A1	2	NetworkDefault	100		8.00		
		3	NetworkDefault	100		8.00		
	B1	1	NetworkDefault	100		4.00		
		2	NetworkDefault	100		4.00		
	C1	1	NetworkDefault	100		5.00		
		2	NetworkDefault	100		5.00		
	D1	1	NetworkDefault	100		4.00		
		2	NetworkDefault	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
	Axbit	1	666
	Bxbit	1	71
	Cxbit	1	681
	Dxbit	1	187
	A1	2	571
		3	41
	B1	1	140
		2	92
	C1	2	524
		3	35
	D1	1	68
		2	93

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
	1	1	C	
	2	1	B	
	3	1	A	
	1	1	E	
	2	1	D	
	1	1	F	
	2	1	G	
	3	1	H	
	1	1	I	
	2	1	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic nodes	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(unfilled)				Fariside	20.37	13.58	5.40
2	(unfilled)				Fariside	12.44	8.29	5.40
3	(unfilled)				Fariside	20.29	13.53	5.40
4	(unfilled)				Fariside	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	1.25		

Normal Input Flows (PCU/hr)

	To
	1 2 3 4
From 1	0 18 93 50
2	122 0 27 92
3	24 35 0 524
4	41 18 571 0

Bus Input Flows not shown as they are blank.
Tram Input Flows not shown as they are blank.
Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	(untitled)	D1/1, D1/2	Dexit/1	Dexit/2	#0000FF
2	(untitled)	B1/1, B1/2	Bexit/1	Bexit/2	#FF0000
3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	Cexit/2, Cexit/3	#00FF00
4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	Aexit/2, Aexit/3	#FFFFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	24
	2		3	2	C1/3, Bexit/1	Normal	35
	3		3	4	C1/2, Aexit/1	Normal	524
	4		4	1	A1/3, Dexit/1	Normal	41
	5		4	3	A1/2, Cexit/1	Normal	571
	6		4	2	A1/1, Bexit/1	Normal	18
	7		1	2	D1/1, Bexit/1	Normal	18
	8		1	4	D1/1, Aexit/1	Normal	50
	9		2	1	B1/1, Dexit/1	Normal	122
	10		2	3	B1/1, Cexit/1	Normal	27
	11		1	3	D1/2, Cexit/1	Normal	93
	12		2	4	B1/2, Aexit/1	Normal	92

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blindout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	48	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	91, 104, 132, 153, 166

Intergreen Matrix for Controller Stream 1

From	To													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A					5	5	6		6	5	5			8
B					5	5			5	6	5			7
C									6	7	5	6		
D					6	5			5	5	8	5		
E					7	6	5		5	5	5	7	8	
F					7				5	5	7	5	6	
G					6				5	5	7	5		
H					6	5	6		5	5	3	5		
I					5	6	5		5	5	7	8	5	
J					5				5	5			8	5
K					21	21	21		21					
L					13	13	13		13	13				
M					21	21	21		21	21				
N					13	13	13		13	13				

Interstage Matrix for Controller Stream 1

	To	1	2	3	4	5
From	1	0	0	7	5	7
	2	6	0	6	5	8
	3	7	5	0	5	8
	4	5	6	5	0	8
	5	21	21	21	21	0

Resultant Stages

Controller stream	Resultant Stage	In base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	7	91	84	1	46
	2	✓	2	A,H	97	104	7	1	7
	3	✓	3	E,I	110	132	22	1	7
	4	✓	4	D,J	137	153	16	1	7
	5	✓	5	K,L,M,N	161	166	5	1	5

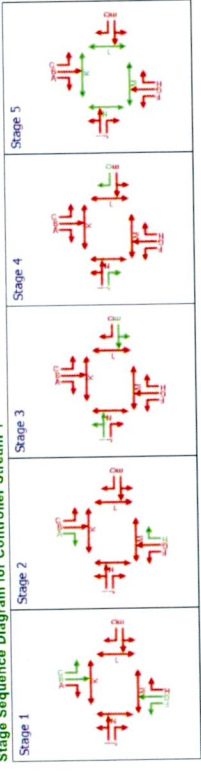
Resultant Phase Green Periods

Controller stream	Phase	Green period	In base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	97	104	7
	B	1	✓	7	91	84
	C	1	✓	7	91	84
	D	1	✓	137	153	16
	E	1	✓	110	132	22
	F	1	✓	7	91	84
	G	1	✓	97	104	7
	H	1	✓	110	132	22
	I	1	✓	137	153	16
	J	1	✓	161	166	5
	K	1	✓	159	166	8
	L	1	✓	161	166	5
	M	1	✓	161	166	5
	N	1	✓	158	166	8

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase		Green Period 1	
				Start	End	Start	End
AI	1		1	C	7	91	84
AI	2		1	B	7	91	84
AI	3		1	A	97	104	7
B1	1		1	E	110	132	22
B1	2		1	D	137	153	16
C1	1		1	F	7	91	84
C1	2		1	G	7	91	84
C1	3		1	H	97	104	7
D1	1		1	I	110	132	22
D1	2		1	J	137	153	16

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical resource capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay max (per cycle)	Mean max delay (s)	Mean max delay (PCU)	Utilised storage (%)	Weighted delay (s per hr)	Weighted stop (s per hr)	Performance Index (£ per hr)
17:00-18:00	AI	Aexit	1	0	Unrestricted	668	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Bexit	1	0	Unrestricted	71	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Cexit	1	0	Unrestricted	691	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	B1	Dexit	1	0	Unrestricted	187	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
			1	2	4150	18	1800	84	25.38	0.48	15.84	1.80	0.12	1.92
			2	67	34	571	1800	84	41.01	22.73	284.10	92.37	5.60	97.97
	C1		3	51	76	41	1800	7	106.85	2.26	28.30	17.28	0.56	17.84
			1	65	39	149	1800	22	86.63	7.66	191.40	52.09	1.90	53.99
			2	54	66	92	1800	16	90.01	4.68	117.06	32.66	1.17	33.83
	D1		1	3	3088	24	1800	84	25.51	0.84	16.01	2.42	0.16	2.57
			2	62	46	524	1800	84	38.75	19.85	397.02	60.08	4.92	85.01
			3	44	108	35	1800	7	100.89	1.87	37.34	13.93	0.46	14.39
		1	30	204	98	1800	22	74.44	3.14	78.52	19.97	0.78	20.75	
		2	55	65	93	1800	16	90.34	4.74	116.51	33.14	1.18	34.32	

Traffic Stream Results: Flows and signals

Time Segment	Am	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow leaving (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modules of error	Actual green cycle (s)
17:00-18:00	Ax	1	666	666	0	Unrestricted	Unrestricted	Unrestricted	0	Unrestricted	Unrestricted	0.86	180
		2	71	71	0	Unrestricted	Unrestricted	Unrestricted	0	Unrestricted	Unrestricted	1.07	180
		3	691	691	0	Unrestricted	Unrestricted	Unrestricted	0	Unrestricted	Unrestricted	0.71	180
	Bx	1	187	187	0	Unrestricted	Unrestricted	Unrestricted	0	Unrestricted	Unrestricted	1.14	180
		2	18	18	0	1800	850	2	4150	0.00	84	0.00	84
		3	571	571	0	1800	850	67	34	0.00	84	0.00	7
C1	1	149	149	0	1800	230	65	39	0.00	22	0.00	22	
	2	52	92	0	1800	170	54	66	0.00	16	0.00	16	
	3	24	24	0	1800	850	3	3088	0.00	84	0.00	84	
D1	1	524	524	0	1800	850	62	46	0.00	84	0.00	84	
	2	35	35	0	1800	80	44	106	0.00	7	0.00	7	
	3	68	68	0	1800	230	30	204	0.00	22	0.00	22	
17:00-18:00	1	93	93	0	1800	170	55	65	0.00	16	0.00	16	
	2												

Traffic Stream Results: Stops and delays

Time Segment	Am	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Ax	1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
		2	32.95	0.00	0.00	0.00	0.00	0.00	0.00
		3	29.22	0.00	0.00	0.00	0.00	0.00	0.00
	Bx	1	31.56	0.00	0.00	0.00	0.00	0.00	0.00
		2	2.49	25.38	0.13	1.80	52.15	9.39	0.12
		3	6.20	41.01	6.50	92.37	78.27	446.93	5.80
C1	1	3.14	90.01	2.30	32.66	101.02	92.84	1.17	
	2	3.03	25.51	0.17	2.42	52.71	12.85	0.16	
	3	3.64	100.89	0.98	13.93	105.81	37.03	0.46	
D1	1	3.01	74.44	1.41	19.97	91.85	62.32	0.78	
	2	3.01	90.34	2.33	33.14	101.17	94.09	1.18	

Traffic Stream Results: Queues and blocking

Time Segment	Am	Traffic Stream	Initial queue (PCU)	Mean queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (£ per cycle)	Estimated blocking
17:00-18:00	Ax	1	0.00	0.00	42.62	0.00	0.00	15.00	0.00
		2	0.00	0.00	47.76	0.00	0.00	125.00	0.00
		3	0.00	0.00	42.35	0.00	0.00	15.00	0.00
	Bx	1	0.00	0.00	45.74	0.00	0.00	107.00	0.00
		2	0.00	0.48	3.00	15.84	0.00	84.00	0.00
		3	0.00	22.73	8.00	284.10	0.00	4.00	0.00
C1	1	0.00	2.26	8.00	28.30	0.00	4.00	0.00	
	2	0.00	7.65	4.00	191.40	0.00	0.00	0.00	
	3	0.00	4.68	4.00	117.06	0.00	0.00	0.00	
D1	1	0.00	0.84	4.00	18.01	0.00	83.00	0.00	
	2	0.00	19.85	5.00	397.02	0.00	0.00	0.00	
	3	0.00	1.97	5.00	37.34	0.00	4.00	0.00	
17:00-18:00	1	0.00	3.14	4.00	78.52	0.00	0.00	0.00	
	2	0.00	4.74	4.00	118.51	0.00	0.00	0.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC
2	26/09/2022 14:48:22	26/09/2022 14:48:23	17:00	100	362.58	24.35	67.18	A1/2	0	0	A1/2	Bxal/1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green cycle (s)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green cycle (s)
17:00-18:00	67	0	3230	1146	27.14	345.73	16.86	362.58	

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green cycle (s)
17:00-18:00	3230	3230	0		67	16.86	34	1196

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	17.08	27.14	24.35	345.73	41.62	1344.26	16.88

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (£ per cycle)
17:00-18:00	397.02	0.00	441.00

A3 - DS+CSLS 2029 AM D3 - DS+CSLS 2029 AM*

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (E per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
3	26/09/2022 14:48:05	26/09/2022 14:48:07	08:00	100	1087.69	73.20	112.46	A1/2	2	9	A1/2	Best/1	A1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DS+CSLS 2029 AM		D3	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:MM)	Locked
DS+CSLS 2029 AM				08:00	<input type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input checked="" type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Pileoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	5.75	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUT Profile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1		Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

Traffic Streams

Am	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
	Aoxt	1		✓	245.07						Normal	
	Bexit	1		✓	274.64						Normal	
	Cexit	1		✓	243.53						Normal	
	Dexit	1		✓	263.00						Normal	
		1		✓	20.78	✓	Sum of lanes	1800	✓		Normal	
	A1	2		✓	51.66	✓	Sum of lanes	1800	✓		Normal	
		3		✓	51.65	✓	Sum of lanes	1800	✓		Normal	
		1		✓	26.15	✓	Sum of lanes	1800	✓		Normal	
	B1	2		✓	26.15	✓	Sum of lanes	1800	✓		Normal	
		1		✓	25.24	✓	Sum of lanes	1800	✓		Normal	
	C1	2		✓	30.30	✓	Sum of lanes	1800	✓		Normal	
		3		✓	30.30	✓	Sum of lanes	1800	✓		Normal	
		1		✓	25.11	✓	Sum of lanes	1800	✓		Normal	
	D1	2		✓	25.11	✓	Sum of lanes	1800	✓		Normal	

LANES

Am	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
	Aoxt	1	1	(unfilled)		
	Bexit	1	1	(unfilled)		
	Cexit	1	1	(unfilled)		
	Dexit	1	1	(unfilled)		
		1	1	(unfilled)		1800
	A1	2	1	(unfilled)		1800
		3	1	(unfilled)		1800
		1	1	(unfilled)		1800
	B1	2	1	(unfilled)		1800
		1	1	(unfilled)		1800
	C1	2	1	(unfilled)		1800
		3	1	(unfilled)		1800
		1	1	(unfilled)		1800
	D1	2	1	(unfilled)		1800

Modelling

Am	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
	Aoxt	1	NetworkDefault	100	100		0.00		
	Bexit	1	NetworkDefault	100	100		0.00		
	Cexit	1	NetworkDefault	100	100		0.00		
	Dexit	1	NetworkDefault	100	100		0.00		
		1	NetworkDefault	100	100		3.00		
	A1	2	NetworkDefault	100	100		8.00		
		3	NetworkDefault	100	100		8.00		
		1	NetworkDefault	100	100		4.00		
	B1	2	NetworkDefault	100	100		4.00		
		1	NetworkDefault	100	100		4.00		
	C1	2	NetworkDefault	100	100		5.00		
		3	NetworkDefault	100	100		5.00		
		1	NetworkDefault	100	100		4.00		
	D1	2	NetworkDefault	100	100		4.00		

Modelling - Advanced

Am	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
	(ALL)	0.00	NetworkDefault	NotIncluded	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Am	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Am	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Am	Traffic Stream	Total flow (PCU/hr)	Normal flow (PCU/hr)
	Aoxt	1	581
	Bexit	1	110
	Cexit	1	826
	Dexit	1	105
		1	22
	A1	2	686
		3	33
		1	40
	B1	2	40
		1	29
	C1	2	562
		3	28
		1	139
	D1	2	134

Signals

Am	Traffic Stream	Controller stream	Phase	Second phase enabled
	1	1	C	
	A1	2	1	B
		3	1	A
	B1	1	1	E
		2	1	D
		1	1	F
	C1	2	1	G
		3	1	H
	D1	1	1	I
		2	1	J

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(unfilled)				Fariside	20.37	13.58	5.40
2	(unfilled)				Fariside	12.44	8.29	5.40
3	(unfilled)				Fariside	20.29	13.53	5.40
4	(unfilled)				Fariside	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	1000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Peds)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Matrix to copy flows from	Limit paths by length	path length multiplier	Limit paths by number	path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	1.25		

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	0	60	134	79	
2	43	0	6	40	
3	29	28	0	562	
4	33	22	686	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	(untitled)	D1/1, D1/2	Dexit/1	Dexit/1	#0000FF
2	(untitled)	B1/1, B1/2	Bexit/1	Bexit/1	#FF0000
3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	Cexit/1	#00FF00
4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	Aexit/1	#FF0000

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	29
	2		3	2	C1/3, Aexit/1	Normal	28
	3		3	4	C1/2, Aexit/1	Normal	562
	4		4	1	A1/3, Dexit/1	Normal	33
1	5		4	3	A1/2, Cexit/1	Normal	686
	6		4	2	A1/1, Bexit/1	Normal	22
	7		1	2	D1/1, Bexit/1	Normal	60
	8		1	4	D1/1, Aexit/1	Normal	79
10	9		2	1	B1/1, Dexit/1	Normal	43
	10		2	3	B1/1, Cexit/1	Normal	6
	11		1	3	D1/2, Cexit/1	Normal	134
	12		2	4	B1/2, Aexit/1	Normal	40

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	46	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	E, I	1
	2	D, J	1
	3	M, K, N, L	1
	4	C, F, B, G	1
	5	H, A	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	I	1	2	3
	2	Losing	N	3	4	8
	3	Losing	L	3	4	8
	4	Losing	F	4	5	1
	5	Losing	B	4	5	1
	6	Losing	G	4	5	2
	7	Losing	A	5	1	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	28, 64, 77, 157, 170

Intergreen Matrix for Controller Stream 1

		To													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A		5	5	6	6	6	6	5	5	5	5	5	5	8
	B			5	5	5	5	5	6	6	5	7			
	C					6	7	5	6	7	5	6			
	D							5	5	5	5	8	5		
	E									7	6	5	5	5	7
From	F													5	6
	G														6
	H														5
	I														5
	J														5
From	K														21
	L														13
	M														21
	N														13
															13

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	8	7	5	
	2	5	0	8	5	6
	3	21	21	0	21	21
	4	7	5	7	0	7
	5	7	5	8	6	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	E,I	177	28	31	1	6
	2	✓	2	D,J	36	64	28	1	7
	3	✓	3	M,K,N,L	72	77	5	1	5
	4	✓	4	C,F,B,G	98	157	59	1	45
	5	✓	5	H,A	164	170	6	1	6

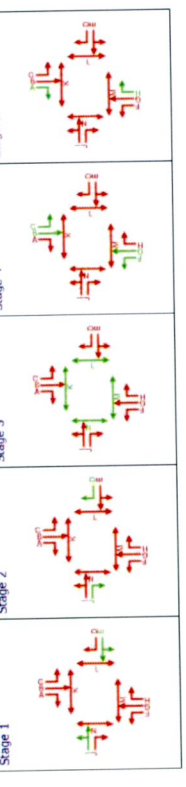
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	164	171	7
	B	1	✓	98	158	60
	C	1	✓	98	157	59
	D	1	✓	36	64	28
	E	1	✓	176	28	32
	F	1	✓	98	158	60
	G	1	✓	98	159	61
	H	1	✓	163	170	7
	I	1	✓	177	31	34
	J	1	✓	33	64	31
1	K	1	✓	72	77	5
	L	1	✓	69	85	16
	M	1	✓	72	77	5
	N	1	✓	69	85	16
		1	✓	69	85	16

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase		Green Period 1	
				Start	End	Start	End
A1	1		1	C	98	157	59
	2		1	B	98	158	60
	3		1	A	164	171	7
	1		1	E	176	28	32
	2		1	D	36	64	28
	1		1	F	98	158	60
	2		1	G	98	159	61
	3		1	H	163	170	7
	1		1	I	177	31	34
	2		1	J	33	64	31

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of paper (£ per hr)	Performance Index (£ per hr)	
08:00-09:00	Aexit	1	0	Unrestricted	681	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		Bexit	1	0	Unrestricted	110	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Cexit	1	0	Unrestricted	750	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit	1	0	Unrestricted	105	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	112	-20	2355	22	1800	59	40.67	0.74	24.67	3.53	0.18	3.71
		3	41	118	33	1800	60	271.12	71.91	898.90	733.63	15.47	749.08	13.34
	B1	1	15	506	49	1800	32	62.66	2.07	51.71	12.11	0.51	12.63	10.81
		2	14	553	40	1800	28	65.80	1.72	43.05	10.36	0.43	4.83	4.83
	C1	1	5	1793	29	1800	60	40.14	0.97	24.20	4.59	0.24	178.36	7.54
		2	91	-1	562	1800	61	80.46	30.48	609.52	178.36	7.54	165.90	10.90
		3	35	157	28	1800	34	95.43	1.45	28.92	10.54	0.36	10.54	38.08
	D1	1	40	127	139	1800	34	66.67	6.19	154.80	36.55	1.54	38.08	38.08
		2	42	115	134	1800	31	69.77	6.07	151.71	36.68	1.51	38.38	38.38

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
3	26/09/2022 14:48:05	26/09/2022 14:48:07	08:00	100	1067.69	73.20	112.46	A1/2	2	9	A1/2	Box1/1	A1/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	112	-20	3366	1089	1039.47	28.22	1067.69

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
08:00-09:00	3368	3292	76	✓	112	✓	-20	1183

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.84	76.24	73.20	1039.47	71.38	2250.50	26.22

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)
08:00-09:00	898.90	0.00	471.00

Traffic Stream Results: Flows and signals

Time Segment	Am	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s per cycle)	
08:00-09:00	Aexit	1	681	681	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	180	
		Bexit	1	110	110	0		Unrestricted	Unrestricted	0		Unrestricted	1.03	180
		Cexit	1	750	750	76	✓	Unrestricted	Unrestricted	0		Unrestricted	1.80	180
		Dexit	1	105	105	0		Unrestricted	Unrestricted	0		Unrestricted	1.06	180
	A1	1	22	22	0		1800	600	4	112	✓	2385	0.00	59
		2	866	810	0		1800	610	0			-20	0.00	60
		3	33	33	0		1800	80	41			118	0.00	7
		4	49	49	0		1800	330	15			508	0.00	32
	B1	1	40	40	0		1800	290	14			553	0.00	28
		2	29	29	0		1800	510	5			1793	0.00	80
		3	562	562	0		1800	620	91	✓		-1	0.00	81
		4	28	28	0		1800	80	35			157	0.00	7
C1	1	139	139	0		1800	350	40			127	0.00	34	
	2	134	134	0		1800	320	42			115	0.00	31	

Traffic Stream Results: Stops and delays

Time Segment	Am	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit	1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
		Bexit	1	32.96	0.00	0.00	0.00	0.00	0.00
		Cexit	1	29.22	0.00	0.00	0.00	0.00	0.00
		Dexit	1	31.96	40.67	0.25	3.53	66.63	14.66
	A1	1	6.20	271.12	51.68	733.63	202.24	1233.65	15.47
		2	6.20	98.17	0.91	12.91	104.96	34.64	0.43
		3	3.14	62.66	0.85	12.11	83.89	41.01	0.51
		4	3.14	65.80	0.73	10.38	85.45	34.18	0.43
	B1	1	3.03	40.14	0.32	4.59	66.09	19.17	0.24
		2	3.64	90.46	12.56	178.36	107.01	601.39	7.94
		3	3.64	95.43	0.74	10.54	102.62	28.71	0.36
		4	3.01	66.67	2.57	36.55	68.23	122.64	1.54
D1	1	3.01	69.77	2.60	36.88	66.90	120.47	1.51	

Traffic Stream Results: Queues and blocking

Time Segment	Am	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Mean queue storage (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)	Estimated blocking
08:00-09:00	Aexit	1	0.00	0.00	42.62	0.00	0.00	0.00	32.00	
		Bexit	1	0.00	0.00	47.76	0.00	0.00	107.00	
		Cexit	1	0.00	0.00	42.35	0.00	0.00	42.00	
		Dexit	1	0.00	0.00	45.74	0.00	0.00	111.00	
	A1	1	0.00	0.74	3.00	24.87	0.00	0.00	58.00	
		2	0.00	71.91	8.00	898.90	0.00	0.00	4.00	
		3	0.00	1.75	8.00	21.82	0.00	0.00	25.00	
		4	0.00	1.72	4.00	51.71	0.00	0.00	25.00	
	B1	1	0.00	0.97	4.00	24.20	0.00	0.00	59.00	
		2	0.00	5.00	5.00	609.52	0.00	0.00	5.00	
		3	0.00	1.45	5.00	28.92	0.00	0.00	5.00	
		4	0.00	6.19	4.00	154.80	0.00	0.00	5.00	
D1	1	0.00	6.07	4.00	151.71	0.00	0.00	5.00		

A4 - DS+CSLS 2029 PM D4 - DS+CSLS 2029 PM*

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis Run start time	Run finish time	Modelling start time (hh:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
4	26/09/2022 14:48:07	26/09/2022 17:00	100	397.80	267.2	71.65	A1/2	0	0	A1/2	Best/1	A1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DS+CSLS 2029 PM		D4	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (hh:mm)	Locked
DS+CSLS 2029 PM				17:00	<input type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	5.75	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUT Profile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic mode
(ALL)			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is one way	Traffic type	Allow Nearside Turn On Red
Ax0it	1			✓	245.07						Normal	
Bx0it	1			✓	274.64						Normal	
Cx0it	1			✓	243.53						Normal	
Dx0it	1			✓	263.00						Normal	
	1			✓	20.78	✓	Sum of lanes	1800	✓		Normal	
A1	2			✓	51.65	✓	Sum of lanes	1800	✓		Normal	
	3			✓	51.65	✓	Sum of lanes	1800	✓		Normal	
B1	1			✓	26.15	✓	Sum of lanes	1800	✓		Normal	
	2			✓	26.15	✓	Sum of lanes	1800	✓		Normal	
C1	1			✓	25.24	✓	Sum of lanes	1800	✓		Normal	
	2			✓	30.30	✓	Sum of lanes	1800	✓		Normal	
	3			✓	30.30	✓	Sum of lanes	1800	✓		Normal	
D1	1			✓	25.11	✓	Sum of lanes	1800	✓		Normal	
	2			✓	25.11	✓	Sum of lanes	1800	✓		Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RRB?	Saturation flow (PCU/hr)
Ax0it	1	1	(unfilled)			
Bx0it	1	1	(unfilled)			
Cx0it	1	1	(unfilled)			
Dx0it	1	1	(unfilled)			
	1	1	(unfilled)			1600
A1	2	1	(unfilled)			1600
	3	1	(unfilled)			1600
B1	1	1	(unfilled)			1600
	2	1	(unfilled)			1600
C1	1	1	(unfilled)			1600
	2	1	(unfilled)			1600
	3	1	(unfilled)			1600
D1	1	1	(unfilled)			1600
	2	1	(unfilled)			1600

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Ax0it	1	NetworkDefault	100	100	100		0.00		
Bx0it	1	NetworkDefault	100	100	100		0.00		
Cx0it	1	NetworkDefault	100	100	100		0.00		
Dx0it	1	NetworkDefault	100	100	100		0.00		
	1	NetworkDefault	100	100	100		3.00		
A1	2	NetworkDefault	100	100	100		8.00		
	3	NetworkDefault	100	100	100		8.00		
B1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		5.00		
	3	NetworkDefault	100	100	100		5.00		
D1	1	NetworkDefault	100	100	100		4.00		
	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
Ax0it	1	710	710
Bx0it	1	75	75
Cx0it	1	736	736
Dx0it	1	196	196
	1	20	20
A1	2	609	609
	3	42	42
B1	1	158	158
	2	98	98
	1	25	25
C1	2	559	559
	3	37	37
D1	1	71	71
	2	98	98

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
	1	1	C	
A1	2	1	B	
	3	1	A	
B1	1	1	E	
	2	1	D	
	1	1	F	
C1	2	1	G	
	3	1	H	
D1	1	1	I	
	2	1	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic mode	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(unfilled)				Farside	20.37	13.58	5.40
2	(unfilled)				Farside	12.44	8.29	5.40
3	(unfilled)				Farside	20.29	13.53	5.40
4	(unfilled)				Farside	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	I	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flow from	Matrix to paths by length	Limit paths by length multiplier	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>				1.25		

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	0	15	96	53	
2	129	0	29	98	
3	25	37	0	559	
4	42	20	609	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	(untitled)	D1/1, D1/2	Dexit/1	Dexit/1	#0000FF
2	(untitled)	B1/1, B1/2	Bexit/1	Bexit/1	#FF0000
3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	Cexit/1	#00FF00
4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	Aexit/1	#FF0000

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	25
	2		3	2	C1/3, Bexit/1	Normal	37
	3		3	4	C1/2, Aexit/1	Normal	559
	4		4	1	A1/3, Dexit/1	Normal	42
	5		4	3	A1/2, Cexit/1	Normal	609
	6		4	2	A1/1, Bexit/1	Normal	20
	7		1	2	D1/1, Bexit/1	Normal	18
	8		1	4	D1/1, Aexit/1	Normal	53
	9		2	1	B1/1, Dexit/1	Normal	129
	10		2	3	B1/1, Cexit/1	Normal	29
	11		1	3	D1/2, Cexit/1	Normal	98
	12		2	4	B1/2, Aexit/1	Normal	98

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	48	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

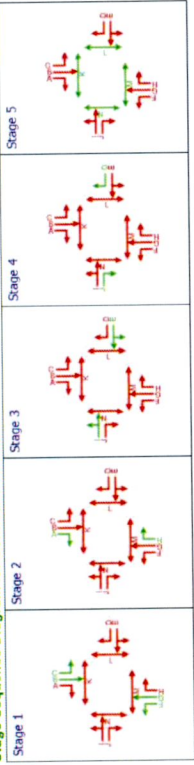
Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	91, 104, 132, 153, 166

From	To	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A	A					5	5	6	6	6	5	5			8
B	A					5	5			5	6	5	7		
C	A									6	7	5	6		
D	A									5	5	8	5		
E	A									7	6	5	5	7	8
F	A									7				5	6
G	A									6				5	7
H	A									6	5	6		5	5
I	A									5	5			7	8
J	A									5	5			8	5
K	A									21					
L	A									13	13				
M	A									21	21	21	21		
N	A									13	13			13	13

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1	
					Start	End
AI	1		1	C	7	91
AI	2		1	B	7	91
AI	3		1	A	97	104
B1	1		1	E	110	132
B1	2		1	D	137	153
C1	1		1	F	7	91
C1	2		1	G	7	91
C1	3		1	H	97	104
D1	1		1	I	110	132
D1	2		1	J	137	153

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)	
17:00-18:00	Axist	1	0	Unrestricted	710	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		Baxist	1	0	Unrestricted	75	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Caxist	1	0	Unrestricted	736	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Daxist	1	0	Unrestricted	166	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	AI	1	2	3725	20	1800	1800	84	25.42	0.53	17.79	2.01	0.13	2.14
		2	72	26	609	1800	1800	84	43.17	25.08	313.55	103.70	6.21	109.91
		3	53	71	42	1800	1800	7	108.02	2.33	29.15	17.89	0.58	18.47
	B1	1	69	31	156	1800	1800	22	91.59	8.27	206.86	57.08	2.05	59.13
		2	59	56	98	1800	1800	16	92.10	5.06	126.61	35.60	1.26	36.86
		3	2860	25	1800	1800	1800	84	25.63	0.67	16.68	2.52	0.17	2.68
	C1	1	66	37	559	1800	1800	84	40.40	21.90	437.98	89.07	5.43	94.49
		2	46	95	37	1800	1800	7	102.72	1.98	39.83	14.99	0.50	15.49
3		31	192	71	1800	1800	22	74.78	3.28	82.08	20.94	0.62	21.76	
D1	1	58	56	98	1800	1800	16	92.10	5.06	126.61	35.60	1.26	36.86	
	2	58	56	98	1800	1800	16	92.10	5.06	126.61	35.60	1.26	36.86	

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)	
17:00-18:00	Axist	1	0	Unrestricted	710	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		Baxist	1	0	Unrestricted	75	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Caxist	1	0	Unrestricted	736	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Daxist	1	0	Unrestricted	166	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	AI	1	2	3725	20	1800	1800	84	25.42	0.53	17.79	2.01	0.13	2.14
		2	72	26	609	1800	1800	84	43.17	25.08	313.55	103.70	6.21	109.91
		3	53	71	42	1800	1800	7	108.02	2.33	29.15	17.89	0.58	18.47
	B1	1	69	31	156	1800	1800	22	91.59	8.27	206.86	57.08	2.05	59.13
		2	59	56	98	1800	1800	16	92.10	5.06	126.61	35.60	1.26	36.86
		3	2860	25	1800	1800	1800	84	25.63	0.67	16.68	2.52	0.17	2.68
	C1	1	66	37	559	1800	1800	84	40.40	21.90	437.98	89.07	5.43	94.49
		2	46	95	37	1800	1800	7	102.72	1.98	39.83	14.99	0.50	15.49
3		31	192	71	1800	1800	22	74.78	3.28	82.08	20.94	0.62	21.76	
D1	1	58	56	98	1800	1800	16	92.10	5.06	126.61	35.60	1.26	36.86	
	2	58	56	98	1800	1800	16	92.10	5.06	126.61	35.60	1.26	36.86	

Interstage Matrix for Controller Stream 1

From	To				
	1	2	3	4	5
1	0	6	7	5	7
2	6	0	6	5	8
3	7	5	0	5	8
4	5	6	5	0	8
5	21	21	21	21	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	7	91	84	1	46
	2	✓	2	A,H	97	104	7	1	7
	3	✓	3	E,I	110	132	22	1	7
	4	✓	4	D,J	137	153	16	1	7
	5	✓	5	K,L,M,N	161	166	5	1	5

Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	97	104	7
	B	1	✓	7	91	84
	C	1	✓	7	91	84
	D	1	✓	137	153	16
	E	1	✓	110	132	22
	F	1	✓	7	91	84
	G	1	✓	7	91	84
	H	1	✓	97	104	7
	I	1	✓	110	132	22
	J	1	✓	137	153	16
	K	1	✓	161	166	5
	L	1	✓	166	166	8
	M	1	✓	161	166	5
	N	1	✓	158	166	8
	O	1	✓	158	166	8

Traffic Stream Results: Flows and signals

Time Segment	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green reserve (s per cycle)
17:00-18:00	Aaxit 1	710	710	0		Unrestricted	Unrestricted	0		Unrestricted	0.66	180
	Baxit 1	75	75	0		Unrestricted	Unrestricted	0		Unrestricted	1.06	180
	Caxit 1	736	736	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	180
	Daxit 1	196	196	0		Unrestricted	Unrestricted	0		Unrestricted	1.14	180
	Ai 1	20	20	0		1800	850	2		3725	0.00	84
	Ai 2	509	609	0		1800	850	72		26	0.00	84
B1	3	42	42	0		1800	81	53		71	0.00	7
	4	158	158	0		1800	230	69		31	0.00	22
	5	98	98	0		1800	170	58		56	0.00	16
C1	1	25	25	0		1800	850	3		2869	0.00	84
	2	559	559	0		1800	850	68		37	0.00	84
	3	37	37	0		1800	80	48		95	0.00	7
D1	1	71	71	0		1800	230	31		192	0.00	22
	2	98	98	0		1800	170	58		56	0.00	16

Traffic Stream Results: Stops and delays

Time Segment	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Aaxit 1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
	Baxit 1	32.96	0.00	0.00	0.00	0.00	0.00	0.00
	Caxit 1	29.22	0.00	0.00	0.00	0.00	0.00	0.00
	Daxit 1	31.56	0.00	0.00	0.00	0.00	0.00	0.00
	Ai 1	2.49	25.42	0.14	2.01	52.88	10.54	0.13
	Ai 2	6.20	43.17	7.30	103.70	81.31	495.17	6.21
B1	3	3.14	91.59	4.02	57.08	103.63	163.74	2.05
	4	3.14	92.10	2.51	35.60	102.53	100.48	1.26
C1	1	3.03	25.53	0.18	2.52	52.71	13.18	0.17
	2	3.64	40.40	6.27	89.07	77.41	432.73	5.43
	3	3.64	102.72	1.06	14.59	106.74	39.49	0.50
D1	1	3.01	74.78	1.47	20.64	91.82	65.19	0.82
	2	3.01	92.10	2.51	35.60	102.53	100.48	1.26

Traffic Stream Results: Queues and blocking

Time Segment	Traffic Stream	Initial queue (PCU)	Mean queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)	Estimated blocking
17:00-18:00	Aaxit 1	0.00	0.00	42.52	0.00	0.00	14.00	0.00
	Baxit 1	0.00	0.00	47.76	0.00	0.00	127.00	0.00
	Caxit 1	0.00	0.00	42.35	0.00	0.00	14.00	0.00
	Daxit 1	0.00	0.00	45.74	0.00	0.00	105.00	0.00
	Ai 1	0.00	0.53	3.00	17.79	0.00	83.00	0.00
	Ai 2	0.00	25.08	8.00	313.55	0.00	3.00	0.00
B1	3	0.00	2.33	8.00	28.15	0.00	3.00	0.00
	4	0.00	4.00	4.00	206.68	0.00	0.00	0.00
C1	1	0.00	5.06	4.00	126.61	0.00	0.00	0.00
	2	0.00	0.87	4.00	16.88	0.00	83.00	0.00
	3	0.00	1.99	5.00	437.98	0.00	4.00	0.00
D1	1	0.00	3.28	4.00	82.08	0.00	4.00	0.00
	2	0.00	5.06	4.00	126.61	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst PRC
4	26/09/2022 14:48:07	26/09/2022 14:48:08	17:00	100	397.80	26.72	71.65	A1/2	0	0	A1/2	Baxit/1	A1/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	72	0	3434	1146	26.01	379.41	18.40	397.80

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
17:00-18:00	3434	3434	0		72		26	1196

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	17.09	26.01	26.72	379.41	42.72	1467.16	18.40

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)
17:00-18:00	437.98	0.00	433.00

A5 - DS+Full SDZ 2039 AM D5 - DS+Full SDZ 2039 AM*

Summary

Data Errors and Warnings
No errors or warnings

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
5	26/09/2022 14:48:09	26/09/2022 14:48:10	08:00	100	2536.76	175.27	134.85	C1/2	1	5	C1/2	Bexill/1	C1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DS+Full SDZ 2039 AM		D5	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DS+Full SDZ 2039 AM				08:00	<input type="checkbox"/>

Network Options

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution Threshold (%)	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUT Profile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
(Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1		Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is signal controlled	Is signal controlled	Is signal controlled	Traffic type	Allow Nearside Turn On Red
Axbit	1			✓	245.07								Normal	
Bexit	1			✓	274.64								Normal	
Cexit	1			✓	243.53								Normal	
Dexit	1			✓	263.00								Normal	
A1	1			✓	20.76	✓	Sum of lanes	1800	✓				Normal	
	2				51.66	✓	Sum of lanes	1800	✓				Normal	
	3				51.66	✓	Sum of lanes	1800	✓				Normal	
B1	1			✓	26.15	✓	Sum of lanes	1800	✓				Normal	
	2				26.15	✓	Sum of lanes	1800	✓				Normal	
C1	1			✓	25.24	✓	Sum of lanes	1800	✓				Normal	
	2			✓	30.30	✓	Sum of lanes	1800	✓				Normal	
	3			✓	30.30	✓	Sum of lanes	1800	✓				Normal	
D1	1			✓	25.11	✓	Sum of lanes	1800	✓				Normal	
	2			✓	25.11	✓	Sum of lanes	1800	✓				Normal	

LANES

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Axbit	1	1	(unfilled)			
Bexit	1	1	(unfilled)			
Cexit	1	1	(unfilled)			
Dexit	1	1	(unfilled)			
A1	1	1	(unfilled)			1800
	2	1	(unfilled)			1800
	3	1	(unfilled)			1800
B1	1	1	(unfilled)			1800
	2	1	(unfilled)			1800
C1	1	1	(unfilled)			1800
	2	1	(unfilled)			1800
	3	1	(unfilled)			1800
D1	1	1	(unfilled)			1800
	2	1	(unfilled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Exclude from results calculation	Assignment Cost Weighting (%)	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Axbit	1	NetworkDefault	100	100		100	0.00		
Bexit	1	NetworkDefault	100	100		100	0.00		
Cexit	1	NetworkDefault	100	100		100	0.00		
Dexit	1	NetworkDefault	100	100		100	0.00		
A1	1	NetworkDefault	100	100		100	3.00		
	2	NetworkDefault	100	100		100	8.00		
	3	NetworkDefault	100	100		100	8.00		
B1	1	NetworkDefault	100	100		100	4.00		
	2	NetworkDefault	100	100		100	4.00		
C1	1	NetworkDefault	100	100		100	4.00		
	2	NetworkDefault	100	100		100	5.00		
	3	NetworkDefault	100	100		100	5.00		
D1	1	NetworkDefault	100	100		100	4.00		
	2	NetworkDefault	100	100		100	4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Indefined	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
Axbit	1	1289	1289
Bexit	1	162	162
Cexit	1	902	902
Dexit	1	262	262
A1	1	55	55
	2	644	644
	3	43	43
B1	1	184	184
	2	186	186
	1	61	61
C1	2	983	983
	3	19	19
D1	1	208	208
	2	232	232

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	C	
	2	1	B	
	3	1	A	
B1	1	1	E	
	2	1	D	
	1	1	F	
C1	2	1	G	
	3	1	H	
D1	1	1	I	
	2	1	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(unfilled)				Parade	20.37	13.56	5.40
2	(unfilled)				Parade	12.44	8.29	5.40
3	(unfilled)				Parade	20.29	13.53	5.40
4	(unfilled)				Parade	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows from	Matrix to flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	1.25		

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	0	86	232	120	
2	158	0	26	186	
3	61	19	0	963	
4	43	55	644	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	(untitled)	D1/1, D1/2	Dexit/1	Dexit/1	#0000FF
2	(untitled)	B1/1, B1/2	Bexit/1	Bexit/1	#FF0000
3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	Cexit/1	#00FF00
4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	Aexit/1	#FFFFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	61
	2		3	2	C1/3, Bexit/1	Normal	19
	3		3	4	C1/2, Aexit/1	Normal	983
	4		4	1	A1/3, Dexit/1	Normal	43
	5		4	3	A1/2, Cexit/1	Normal	644
	6		4	2	A1/1, Bexit/1	Normal	55
	7		1	2	D1/1, Bexit/1	Normal	86
	8		1	4	D1/1, Aexit/1	Normal	120
	9		2	1	B1/1, Dexit/1	Normal	168
	10		2	3	B1/1, Cexit/1	Normal	26
	11		1	3	D1/2, Cexit/1	Normal	232
	12		2	4	B1/2, Aexit/1	Normal	186

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	46	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	H, A	1
	2	E, I	1
	3	D, J	1
	4	K, M, N, L	1
	5	C, F, B, G	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	A	1	2	1
	2	Losing	I	2	3	2
	3	Losing	N	4	5	1
	4	Losing	L	4	5	1
	5	Losing	F	5	1	1
	6	Losing	B	5	1	1
	7	Losing	G	5	1	2

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5, 25, 55, 88, 101, 12	

Intergreen Matrix for Controller Stream 1

		To													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A		5	5	6	6	6	5	5	6	5	5	5	5	8
	B			5	5			6	7	5	6	5	6		
	C					5	5			5	5	8	5		
	D							7	6	5	6	5	7	8	
	E														
F															
G															
H															
I															
J															
K															
L															
M															
N															

Interstage Matrix for Controller Stream 1

		To							
		1	2	3	4	5			
From	1		0	7	5	8	6		
	2			5	0	7	8	7	
	3				6	5	0	8	5
	4					21	21	0	21
	5						7	5	7

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	H,A	19	25	6	1	6
	2	✓	2	E,I	32	55	23	1	6
	3	✓	3	D,J	62	88	26	1	7
	4	✓	4	K,M,N,L	96	101	5	1	5
	5	✓	5	C,F,B,G	122	12	70	1	45

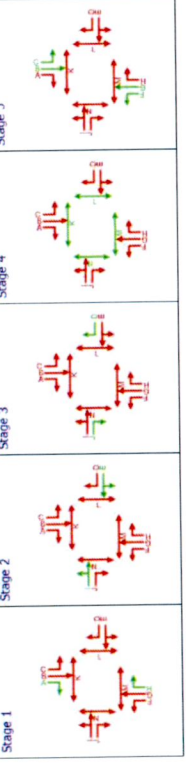
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	19	26	7
	B	1	✓	122	13	71
	C	1	✓	122	12	70
	D	1	✓	62	88	26
	E	1	✓	31	55	24
	F	1	✓	122	13	71
	G	1	✓	122	14	72
	H	1	✓	18	25	7
	I	1	✓	32	57	25
	J	1	✓	60	88	28
	K	1	✓	96	101	5
L	1	✓	93	102	9	
M	1	✓	96	101	5	
N	1	✓	93	102	9	

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1	
					Start	End
08:00-09:00	A1	1	1	C	122	12
	A1	2	1	B	122	13
	A1	3	1	A	18	26
	B1	1	1	E	31	55
	B1	2	1	D	62	88
	C1	1	1	F	122	13
	C1	2	1	G	122	14
	C1	3	1	H	18	25
	D1	1	1	I	32	57
	D1	2	1	J	60	88

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised stage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)	
08:00-09:00	A	Ax1t	1	0	Unrestricted	1036	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	
		Bx1t	1	0	Unrestricted	162	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Cx1t	1	0	Unrestricted	902	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	B	Bx1t	1	0	Unrestricted	262	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Bx2t	1	8	1062	55	1800	70	34.28	1.71	57.15	7.44	0.43	7.86
		Bx3t	1	89	1	644	1800	71	69.48	33.46	418.23	175.50	8.26	184.78
	C	Cx1t	1	54	67	43	1800	7	109.23	2.40	30.01	18.53	0.60	19.12
		Cx2t	1	74	22	184	1800	24	93.43	9.77	244.16	67.81	2.43	70.23
		Cx3t	1	69	31	166	1800	26	66.80	9.52	238.03	63.68	2.37	66.05
	D	Dx1t	1	8	962	61	1800	71	33.78	1.88	47.12	8.13	0.47	8.60
		Dx2t	1	135	-33	983	1800	72	508.19	164.21	3284.26	1970.45	27.09	1597.55
		Dx3t	1	24	279	19	1800	7	90.04	0.95	18.99	6.75	0.24	6.88
D1	D1	1	80	13	208	1800	25	98.96	11.53	288.13	82.01	2.85	84.86	
	D1	2	90	13	232	1800	28	95.73	12.63	315.81	87.60	3.13	90.74	

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s per cycle)
08:00-09:00	Aexit	1	1036	1036	253	✓	Unrestricted	Unrestricted	0	Unrestricted	Unrestricted	0.54	180
		2	162	162	0	Unrestricted	Unrestricted	0	Unrestricted	0	Unrestricted	0.88	180
	Bexit	1	902	902	0	Unrestricted	Unrestricted	0	Unrestricted	0	Unrestricted	0.69	180
		2	262	262	0	Unrestricted	Unrestricted	0	Unrestricted	0	Unrestricted	1.01	180
A1	1	55	55	0	0	1800	710	8	1062	0.00	70		
		644	644	0	1800	720	89	71	1	0.00	71		
		43	43	0	1800	80	54	67	0.00	7			
B1	1	184	184	0	1800	250	74	22	0.00	24			
		186	186	0	1800	270	69	31	0.00	26			
C1	1	61	61	0	1800	720	8	962	0.00	71			
		953	730	0	1800	730	135	-33	0.00	72			
		19	19	0	1800	80	24	279	0.00	7			
D1	1	208	208	0	1800	260	80	13	0.00	25			
		232	232	0	1800	290	80	13	0.00	28			

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU*hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit	1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
		2	32.96	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit	1	29.22	0.00	0.00	0.00	0.00	0.00	0.00
		2	31.56	0.00	0.00	0.00	0.00	0.00	0.00
A1	1	34.28	34.28	0.52	7.44	61.66	33.93	0.43	8.26
		6.20	69.48	12.43	176.50	102.25	668.50	47.54	0.60
		6.20	109.23	1.30	18.53	110.55	47.54	67.50	2.43
B1	1	3.14	93.43	4.76	67.81	105.20	193.56	2.37	
		3.14	86.80	4.48	63.68	101.53	188.85	37.29	0.47
C1	1	3.03	33.78	0.57	8.13	61.14	298.01	2160.89	27.09
		3.64	508.19	138.76	1970.45	298.01	18.86	0.24	
		3.64	90.04	0.48	6.75	99.28	109.40	227.54	2.85
D1	1	3.01	99.96	5.78	82.01	109.40	227.54	2.85	
		3.01	95.73	6.17	87.60	107.70	249.86	3.13	

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)	Estimated blocking
08:00-09:00	Aexit	1	0.00	0.00	42.62	0.00	0.00	12.00	
		2	0.00	0.00	47.76	0.00	0.00	75.00	
	Bexit	1	0.00	0.00	42.35	0.00	0.00	10.00	
		2	0.00	0.00	45.74	0.00	0.00	49.00	
A1	1	0.00	1.71	3.00	57.15	0.00	0.00	67.00	
		0.00	33.46	8.00	418.23	0.00	3.00	0.00	
		0.00	2.40	8.00	30.01	0.00	0.00	0.00	
B1	1	0.00	9.77	4.00	244.16	0.00	0.00	0.00	
		0.00	9.52	4.00	238.03	0.00	0.00	0.00	
C1	1	0.00	1.88	4.00	47.12	0.00	0.00	0.00	
		0.00	164.21	5.00	3284.26	0.00	0.00	0.00	
		0.00	0.95	5.00	18.99	0.00	0.00	0.00	
D1	1	0.00	11.53	4.00	288.13	0.00	0.00	0.00	
		0.00	12.63	4.00	315.61	0.00	0.00	0.00	

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU*hr/hr)	Highest DOS (%)	Item with highest DOS	Number of overaturated items	Percentage of overaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	No. of worst PR
5	26/09/2022 14:48:06	26/09/2022 14:48:10	08:00	100	2536.76	175.27	134.66	C1/2	1	5	C1/2	Bexit/1	C1

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	135	-33	4977	4977	126.78	2488.90	47.86	2536.76

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	DOS Threshold exceeded	Degree of saturation (%)	Practical reserve capacity (%)
08:00-09:00	4977	4724	253	✓	✓	135	-33

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU*hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.30	126.78	175.27	2488.90	91.74	3816.82	47.86

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)
08:00-09:00	3284.26	0.00	222.00

A6 - DS+Full SDZ 2039 PM D6 - DS+Full SDZ 2039 PM*

Summary

Data Errors and Warnings

No errors or warnings

Analysis set used	Run start time	Run finish time	Modelling Cycle (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
6	26/09/2022 14:48:29	26/09/2022 14:48:29	17:00	100	3464.78	239.98	149.87	B1/1	3	14	B1/1	BexM/1	B/V

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DS-Full SDZ 2039 PM		D6	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:MM)	Locked
DS-Full SDZ 2039 PM				17:00	<input type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service parameter	PCU Length (m)	Calculate results for Segments	Generate results for Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	5.75	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUT-Profile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Master controller offsets relative to master controller
Hill Climb (Fast)	40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	1	Do nothing	Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.80	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic mode
(ALL)			

Traffic Streams

Am	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is one way	Traffic type	Allow Nearside Turn On Red
	Axbit	1	(unlimited)	✓	245.07						Normal	
	Bxbit	1	(unlimited)	✓	274.64						Normal	
	Cxbit	1	(unlimited)	✓	243.53						Normal	
	Dxbit	1	(unlimited)	✓	263.00						Normal	
	A1	1	(unlimited)	✓	20.76	✓	Sum of lanes	1800	✓		Normal	
		2	(unlimited)	✓	51.65	✓	Sum of lanes	1800	✓		Normal	
		3	(unlimited)	✓	51.65	✓	Sum of lanes	1800	✓		Normal	
	B1	1	(unlimited)	✓	26.15	✓	Sum of lanes	1800	✓		Normal	
		2	(unlimited)	✓	26.15	✓	Sum of lanes	1800	✓		Normal	
		3	(unlimited)	✓	25.24	✓	Sum of lanes	1800	✓		Normal	
	C1	1	(unlimited)	✓	30.30	✓	Sum of lanes	1800	✓		Normal	
		2	(unlimited)	✓	30.30	✓	Sum of lanes	1800	✓		Normal	
		3	(unlimited)	✓	25.11	✓	Sum of lanes	1800	✓		Normal	
	D1	1	(unlimited)	✓	25.11	✓	Sum of lanes	1800	✓		Normal	
		2	(unlimited)	✓	25.11	✓	Sum of lanes	1800	✓		Normal	

LANES

Am	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
	Axbit	1	(unlimited)			
	Bxbit	1	(unlimited)			
	Cxbit	1	(unlimited)			
	Dxbit	1	(unlimited)			
		1	(unlimited)			1800
	A1	1	(unlimited)			1800
		2	(unlimited)			1800
		3	(unlimited)			1800
	B1	1	(unlimited)			1800
		2	(unlimited)			1800
		3	(unlimited)			1800
	C1	1	(unlimited)			1800
		2	(unlimited)			1800
		3	(unlimited)			1800
	D1	1	(unlimited)			1800
		2	(unlimited)			1800

Modelling

Am	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
	Axbit	1	NetworkDefault	100	100		0.00		
	Bxbit	1	NetworkDefault	100	100		0.00		
	Cxbit	1	NetworkDefault	100	100		0.00		
	Dxbit	1	NetworkDefault	100	100		0.00		
	A1	1	NetworkDefault	100	100		3.00		
		2	NetworkDefault	100	100		8.00		
		3	NetworkDefault	100	100		8.00		
	B1	1	NetworkDefault	100	100		4.00		
		2	NetworkDefault	100	100		4.00		
		3	NetworkDefault	100	100		4.00		
	C1	1	NetworkDefault	100	100		4.00		
		2	NetworkDefault	100	100		5.00		
		3	NetworkDefault	100	100		5.00		
	D1	1	NetworkDefault	100	100		4.00		
		2	NetworkDefault	100	100		4.00		

Modelling - Advanced

Am	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Am	Traffic Stream	Stop weighting (%)	Delay weighting (%)
	(ALL)	100	100

Normal traffic - Advanced

Am	Traffic Stream	Dispersion type for Normal Traffic
	(ALL)	NetworkDefault

Flows

Am	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
	Axbit	1256	1256
	Bxbit	61	61
	Cxbit	875	875
	Dxbit	579	579
	A1	24	24
		646	646
		48	48
	B1	440	440
		308	308
		173	173
	C1	878	878
		18	18
		89	89
	D1	138	138

Signals

Am	Traffic Stream	Controller stream	Phase	Second phase enabled
	A1	1	C	
		2	B	
		3	A	
	B1	1	E	
		2	D	
		1	F	
		2	G	
		3	H	
	D1	1	I	
		2	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic mode	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(unlimited)				Farside	20.37	13.95	5.40
2	(unlimited)				Farside	12.44	8.29	5.40
3	(unlimited)				Farside	20.29	13.53	5.40
4	(unlimited)				Farside	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Matrix to copy flows from	Copy flows	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	1.25		

Normal Input Flows (PCU/hr)

	To				
	1	2	3	4	
From	1	0	19	139	70
	2	358	0	91	308
	3	173	18	0	875
	4	48	24	645	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	#FFFFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	173
	2		3	2	C1/3, Bexit/1	Normal	16
	3		3	4	C1/2, Aexit/1	Normal	876
	4		4	1	A1/3, Dexit/1	Normal	48
	5		4	3	A1/2, Cexit/1	Normal	646
	6		4	2	A1/1, Bexit/1	Normal	24
	7		1	2	D1/1, Bexit/1	Normal	19
	8		1	4	D1/1, Aexit/1	Normal	70
	9		2	1	B1/1, Dexit/1	Normal	358
	10		2	3	B1/1, Cexit/1	Normal	91
	11		1	3	D1/2, Cexit/1	Normal	138
	12		2	4	B1/2, Aexit/1	Normal	308

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	46	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	H, A	1
	2	I, E	1
	3	D, J	1
	4	K, M, N, L	1
	5	C, F, B, G	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	25, 60, 86, 99, 12

Intergreen Matrix for Controller Stream 1

From	To													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A					5	5	6	6		6	5	5		8
B					5	5			5	6	5			7
C									6	7	5	6		
D									5	5	8	5		
E									7	6	5	5	7	8
F														6
G														5
H														5
I														7
J														8
K														5
L														21
M														21
N														13

Interstage Matrix for Controller Stream 1

	To	1	2	3	4	5
From	1	0	6	5	8	6
	2	5	0	5	8	7
	3	6	5	0	8	5
	4	21	21	21	0	21
	5	6	7	5	7	0

Resultant Stages

Controller stream	Resultant Stage	In base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	H,A	18	25	7	1	7
	2	✓	2	I,E	31	60	29	1	7
	3	✓	3	D,J	65	86	21	1	7
	4	✓	4	K,M,N,L	94	99	5	1	5
	5	✓	5	C,F,B,G	120	12	72	1	46

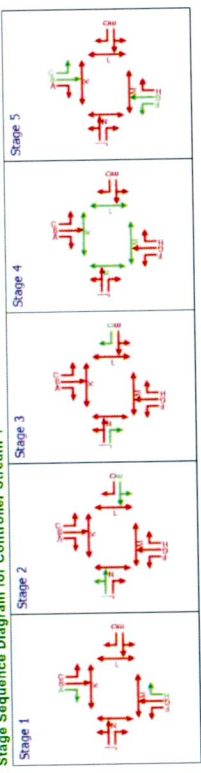
Resultant Phase Green Periods

Controller stream	Phase	In base green period	Start time (s)	End time (s)	Duration (s)
1	A	✓	18	25	7
	B	✓	120	12	72
	C	✓	120	12	72
	D	✓	65	86	21
	E	✓	31	80	29
	F	✓	120	12	72
	G	✓	120	12	72
	H	✓	18	25	7
	I	✓	31	80	29
	J	✓	65	86	21
	K	✓	94	99	5
	L	✓	91	99	8
	M	✓	94	99	5
	N	✓	91	99	8

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1	
					Start	End
AI	1		1	C	120	12
AI	2		1	B	120	12
AI	3		1	A	18	25
B1	1		1	E	31	80
B1	2		1	D	65	86
C1	1		1	F	120	12
C1	2		1	G	120	12
C1	3		1	H	18	25
D1	1		1	I	31	80
D1	2		1	J	65	86

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical resource capacity	Calculated flow entering (PCU/hr)	Calculated sat flow (veh/hr)	Actual green (s per cycle)	Mean Delay Veh (s)	Mean max delay (s) (PCU)	Utilised storage (%)	Weighted delay (£ per hr)	Weighted stops (£ per hr)	Performance Index (£ per hr)		
17:00-18:00		Exit1	0	Unrestricted	1020	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00		
		Exit2	0	Unrestricted	61	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00		
		Exit3	0	Unrestricted	845	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00		
		Exit4	0	Unrestricted	460	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00		
		AI	1	3	2638	24	1800	72	32.37	0.72	24.02	3.06	0.18	3.24	
			2	88	2	646	1800	72	66.92	32.90	411.19	170.53	8.15	178.68	
			3	60	50	48	1800	7	116.18	2.77	34.62	22.00	0.69	22.68	
			4	150	-40	449	1800	29	655.30	90.40	2259.93	1160.58	12.92	1175.50	
			5	140	-36	308	1800	21	584.63	56.13	1403.24	710.26	8.70	718.97	
			1	24	280	173	1800	72	35.96	5.71	142.68	24.54	1.42	25.95	
			2	120	-25	878	1800	72	357.57	112.66	2253.13	1238.35	21.94	1260.29	
			3	23	300	18	1800	7	89.54	0.90	17.95	6.36	0.22	6.58	
			4	1	30	203	69	1800	29	66.28	3.94	96.56	23.97	0.98	24.95
			5	63	43	138	1800	21	88.50	7.07	176.71	48.18	1.76	49.93	

Traffic Stream Results: Flows and signals

Time Segment	Am Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual cycle (s)
17:00-18:00	Aexit 1	1020	1020	236	✓	Unrestricted	Unrestricted	0		Unrestricted	0.59	180
	Bexit 1	61	61	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	180
	Cexit 1	845	845	30	✓	Unrestricted	Unrestricted	0	150	Unrestricted	0.70	180
	Dexit 1	460	460	119	✓	Unrestricted	Unrestricted	0	140	Unrestricted	0.79	180
A1	1	24	24	0		1800	730	3		2638	0.00	72
	2	646	646	0		1800	730	88		2	0.00	72
	3	48	48	0		1800	80	60		50	0.00	7
B1	1	448	300	0		1800	300	150	✓	-40	0.00	29
	2	308	220	0		1800	220	140	✓	-56	0.00	21
C1	1	173	173	0		1800	730	24		280	0.00	72
	2	878	730	0		1800	730	120	✓	-25	0.00	72
	3	18	18	0		1800	80	23		300	0.00	7
D1	1	89	89	0		1800	300	30		203	0.00	29
	2	138	138	0		1800	220	63		43	0.00	21

Traffic Stream Results: Stops and delays

Time Segment	Am Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Aexit 1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit 1	32.96	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit 1	31.56	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit 1	29.22	0.00	0.00	0.00	0.00	0.00	0.00
A1	1	2.49	32.37	0.22	3.06	58.39	14.25	0.18
	2	6.20	66.92	12.01	170.53	100.62	650.04	8.15
B1	1	3.14	66.90	81.73	1190.58	343.61	1030.82	12.92
	2	3.14	584.63	59.02	710.26	315.44	693.97	8.70
C1	1	3.64	367.57	87.21	1238.35	238.74	1750.10	21.84
	3	3.64	89.54	0.45	6.35	99.02	17.62	0.22
D1	1	3.01	68.28	1.69	23.97	87.86	78.29	0.98
	2	3.01	88.50	3.39	48.18	101.44	139.98	1.78

Traffic Stream Results: Queues and blocking

Time Segment	Am Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)	Estimated blocking
17:00-18:00	Aexit 1	0.00	0.00	42.62	0.00	0.00	5.00	
	Bexit 1	0.00	0.00	47.76	0.00	0.00	124.00	
	Cexit 1	0.00	0.00	42.35	0.00	0.00	13.00	
	Dexit 1	0.00	0.00	45.74	0.00	0.00	30.00	
A1	1	0.00	0.72	3.00	24.02	0.00	71.00	
	2	0.00	32.89	8.00	411.19	0.00	0.00	
	3	0.00	2.77	8.00	34.62	0.00	3.00	
B1	1	0.00	50.40	4.00	2259.93	0.00	0.00	
	2	0.00	55.13	4.00	1403.24	0.00	0.00	
C1	1	0.00	5.71	4.00	142.88	0.00	0.00	
	2	0.00	112.66	5.00	2253.13	0.00	0.00	
	3	0.00	0.90	5.00	17.95	0.00	6.00	
D1	1	0.00	3.94	4.00	98.59	0.00	0.00	
	2	0.00	7.07	4.00	176.71	0.00	0.00	

Network Results

Run Summary

Analysis used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst PR
6	26/09/2022 14:48:27	26/09/2022 14:48:29	17:00	100	3464.78	239.99	149.87	B1/1	3	14	B1/1	Bexit/1	B1/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Mean Delay per Veh (s)	Actual green (s per cycle)	Calculated flow entering (PCU/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	150	-40	167.53	1122	5157	3407.82	55.96	3464.78

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
17:00-18:00	5157	4772	385	✓	150	✓	-40	1174

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	15.98	187.53	239.99	3407.82	110.28	4542.85	56.06

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)
17:00-18:00	2259.93	0.00	252.00

A7 - DM+CSLS 2024 AM D7 - DM+CSLS 2024 AM*

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (E per hr)	Total network delay (PCU-hr/hr)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with signalised PRC	Item with worst unsignalised PRC	Item with worst delay on PRC
7	26/09/2022 14:48:20	26/09/2022 14:48:22	08:00	100	751.47	51.25	A1/2	1	5	A1/2	Bexit/1	A1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DM+CSLS 2024 AM		D7	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DM+CSLS 2024 AM				08:00	<input type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrian impacts calculation	Random delay mode	Type of Vehicle-in-Service parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	5.75		<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0, 5, 0, 5, 0, 05, 0, 05	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped/hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm (ALL)	Name	Description	Traffic mode

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is signal controlled	Is signal controlled	Traffic type	Allow Nearside Turn On Red
Axlit	1			✓	245.07							Normal	
Bexit	1			✓	274.64							Normal	
Cexit	1			✓	243.53							Normal	
Dexit	1			✓	253.00							Normal	
A1	1			✓	25.78	✓	Sum of lanes	1800				Normal	
A2	2			✓	51.65	✓	Sum of lanes	1800				Normal	
A3	3			✓	51.65	✓	Sum of lanes	1800				Normal	
B1	1			✓	26.15	✓	Sum of lanes	1800				Normal	
B2	2			✓	26.15	✓	Sum of lanes	1800				Normal	
C1	1			✓	25.24	✓	Sum of lanes	1800				Normal	
C2	2			✓	30.30	✓	Sum of lanes	1800				Normal	
C3	3			✓	30.30	✓	Sum of lanes	1800				Normal	
D1	1			✓	25.11	✓	Sum of lanes	1800				Normal	
D2	2			✓	25.11	✓	Sum of lanes	1800				Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR87	Saturation flow (PCU/hr)
Axlit	1	1	(unfilled)			
Bexit	1	1	(unfilled)			
Cexit	1	1	(unfilled)			
Dexit	1	1	(unfilled)			
A1	1	1	(unfilled)			1800
A2	2	1	(unfilled)			1800
A3	3	1	(unfilled)			1800
B1	1	1	(unfilled)			1800
B2	2	1	(unfilled)			1800
C1	1	1	(unfilled)			1800
C2	2	1	(unfilled)			1800
C3	3	1	(unfilled)			1800
D1	1	1	(unfilled)			1800
D2	2	1	(unfilled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Weighing (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Axlit	1	NetworkDefault	100	100	100		0.00		
Bexit	1	NetworkDefault	100	100	100		0.00		
Cexit	1	NetworkDefault	100	100	100		0.00		
Dexit	1	NetworkDefault	100	100	100		0.00		
A1	1	NetworkDefault	100	100	100		3.00		
A2	2	NetworkDefault	100	100	100		8.00		
A3	3	NetworkDefault	100	100	100		8.00		
B1	1	NetworkDefault	100	100	100		4.00		
B2	2	NetworkDefault	100	100	100		4.00		
C1	1	NetworkDefault	100	100	100		4.00		
C2	2	NetworkDefault	100	100	100		5.00		
C3	3	NetworkDefault	100	100	100		4.00		
D1	1	NetworkDefault	100	100	100		4.00		
D2	2	NetworkDefault	100	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
Axlit	1	634	634
Bexit	1	100	100
Cexit	1	771	771
Dexit	1	96	96
A1	1	21	21
A2	2	643	643
A3	3	30	30
B1	1	44	44
B2	2	38	38
C1	1	27	27
C2	2	526	526
C3	3	26	26
D1	1	123	123
D2	2	123	123

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	C	
A2	2	1	B	
A3	3	1	A	
B1	1	1	E	
B2	2	1	D	
C1	1	1	F	
C2	2	1	G	
C3	3	1	H	
D1	1	1	I	
D2	2	1	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(unfilled)				Farside	20.37	13.58	5.40
2	(unfilled)				Farside	12.44	8.29	5.40
3	(unfilled)				Farside	20.29	13.53	5.40
4	(unfilled)				Farside	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows from	Matrix to copy flows from	Limit paths by length	Limit paths by number	Path length limit multiplier	Has degree of saturation limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		1.25	

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	0	53	123	70	
2	39	0	5	38	
3	27	26	0	526	
4	30	21	643	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	27
	2		3	2	C1/3, Bexit/1	Normal	26
	3		3	4	C1/2, Aexit/1	Normal	526
	4		4	1	A1/3, Dexit/1	Normal	30
	5		4	3	A1/2, Cexit/1	Normal	643
	6		4	2	A1/1, Bexit/1	Normal	21
	7		1	2	D1/1, Bexit/1	Normal	53
	8		1	4	D1/1, Aexit/1	Normal	70
	9		2	1	B1/1, Dexit/1	Normal	39
	10		2	3	B1/1, Cexit/1	Normal	5
	11		1	3	D1/2, Cexit/1	Normal	123
	12		2	4	B1/2, Aexit/1	Normal	38

Signal Timings

Network Default: 100s cycle time, 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	46	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	E, J	1
	2	D, J	1
	3	M, K, N, L	1
	4	C, F, B, G	1
	5	H, A	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	I	1	2	3
	2	Losing	N	3	4	8
	3	Losing	L	3	4	8
	4	Losing	F	4	5	1
	5	Losing	B	4	5	1
	6	Losing	G	4	5	2
	7	Losing	A	5	1	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 64, 77, 157, 170

Intergreen Matrix for Controller Stream 1

		To													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A		5	5	6	6	6	5	5	5	5	5	5	5	8
	B			5	5	5	6	5	6	5	7				
	C					6	7	5	6	5	6				
	D					6	5	5	5	5	8	5			
	E					7	6	5	5	5	7	8			
From	F					7									6
	G					6									5
	H					6	6	5	6	5	5	8	5		5
	I					5	6	7	5	5	5	7	8	5	5
	J					5	5	5	5	5	5	7	8	5	5
From	K					21	21	21	21	21					
	L					13	13	13	13	13					
	M					21	21	21	21	21					
	N					13	13	13	13	13					

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	8	8	7	5
	2	5	0	8	5	6
	3	21	21	0	21	21
	4	7	5	7	0	7
	5	7	5	8	6	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	E,I	177	27	30	1	6
	2	✓	2	D,J	35	64	29	1	7
	3	✓	3	M,K,N,L	72	77	5	1	5
	4	✓	4	C,F,B,G	96	157	59	1	45
	5	✓	5	H,A	154	170	6	1	6

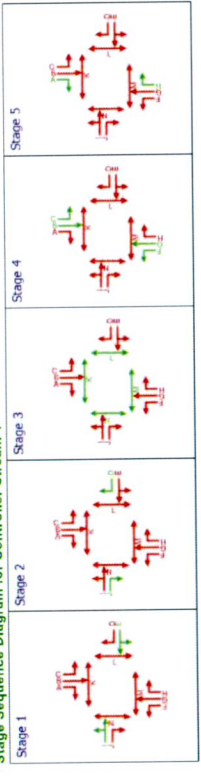
Resultant Phase Green Periods

Controller stream	Phase	Green period	In base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	164	171	7
	B	1	✓	98	158	60
	C	1	✓	98	157	59
	D	1	✓	35	64	29
	E	1	✓	176	27	31
	F	1	✓	98	159	60
	G	1	✓	98	159	61
	H	1	✓	163	170	7
	I	1	✓	177	30	33
	J	1	✓	32	64	32
5	K	1	✓	72	77	5
	L	1	✓	69	85	16
	M	1	✓	72	77	5
	N	1	✓	69	85	16

Traffic Stream Green Times

Am	Traffic Stream	Traffic Node	Controller Stream	Green Period 1			
				Phase	Start	End	Duration
AI	1		1	C	98	157	59
AI	2		1	B	98	158	60
AI	3		1	A	164	171	7
B1	1		1	E	176	27	31
B1	2		1	D	35	64	29
C1	1		1	F	98	158	60
C1	2		1	G	98	159	61
C1	3		1	H	163	170	7
D1	1		1	I	177	30	33
D1	2		1	J	32	64	32

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Am	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)	
08:00-09:00	Exit	1	0	Unrestricted	634	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		2	105	-15	1800	643	1800	60	184.59	53.22	685.22	468.16	12.48	480.64
	B1	1	14	555	44	1800	31	63.29	1.86	46.41	10.98	0.46	11.45	0.00
		2	13	970	38	1800	29	64.74	1.62	40.10	9.70	0.40	10.11	0.00
	C1	1	4	1933	27	1800	60	40.10	0.90	22.53	4.27	0.22	4.49	0.00
		2	85	6	526	1800	61	69.90	26.48	529.65	145.02	6.57	151.59	9.98
	D1	1	36	149	123	1800	33	66.55	5.43	135.80	32.29	1.35	33.64	0.00
		2	37	141	123	1800	32	67.66	5.47	136.86	32.83	1.36	34.19	0.00

Traffic Stream Results: Flows and signals

Time Segment	Am Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green cycle (s)
08:00-09:00	Aexit 1	634	634	0		Unrestricted	Unrestricted	0		Unrestricted	0.88	180
	Bexit 1	100	100	0		Unrestricted	Unrestricted	0		Unrestricted	1.03	180
	Cexit 1	738	738	33	✓	Unrestricted	Unrestricted	0		Unrestricted	0.87	180
	Dexit 1	96	96	0		Unrestricted	Unrestricted	0		Unrestricted	1.06	180
A1	1	21	21	0		1800	600	4		2471	0.00	59
	2	643	610	0		1800	610	105	✓	-15	0.00	60
	3	30	30	0		1800	80	38		140	0.00	7
B1	1	44	44	0		1800	300	14		555	0.00	31
	2	38	38	0		1800	300	13		611	0.00	29
C1	1	27	27	0		1800	610	4		1933	0.00	60
	2	526	526	0		1800	620	85		6	0.00	61
D1	1	26	26	0		1800	80	33		177	0.00	7
	2	123	123	0		1800	340	36		149	0.00	33
D1	1	123	123	0		1800	330	37		141	0.00	32
	2	123	123	0		1800	330	37		141	0.00	32

Traffic Stream Results: Stops and delays

Time Segment	Am Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit 1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit 1	32.96	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit 1	29.22	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit 1	31.56	0.00	0.00	0.00	0.00	0.00	0.00
	A1	2.49	40.64	0.24	3.37	66.63	13.99	0.18
	B1	6.20	164.59	32.97	468.16	163.14	995.14	12.48
C1	1	3.14	63.29	0.77	11.46	103.23	30.97	0.39
	2	3.03	40.10	0.30	4.27	84.83	32.23	0.40
D1	1	3.64	69.90	10.21	145.02	99.50	523.88	6.57
	2	3.01	66.55	2.27	32.28	87.96	107.83	1.35
D1	1	3.01	67.66	2.31	32.83	88.35	108.67	1.36
	2	3.01	67.66	2.31	32.83	88.35	108.67	1.36

Traffic Stream Results: Queues and blocking

Time Segment	Am Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)	Estimated blocking
08:00-09:00	Aexit 1	0.00	0.00	42.62	0.00	0.00	33.00	0.00
	Bexit 1	0.00	0.00	47.76	0.00	0.00	110.00	0.00
	Cexit 1	0.00	0.00	42.35	0.00	0.00	43.00	0.00
	Dexit 1	0.00	0.00	45.74	0.00	0.00	113.00	0.00
A1	1	0.00	0.71	3.00	23.55	0.00	58.00	0.00
	2	0.00	53.22	8.00	665.22	0.00	5.00	0.00
B1	1	0.00	1.96	4.00	46.41	0.00	25.00	0.00
	2	0.00	1.62	4.00	40.80	0.00	25.00	0.00
C1	1	0.00	0.90	4.00	22.53	0.00	59.00	0.00
	2	0.00	26.48	5.00	529.65	0.00	0.00	0.00
D1	1	0.00	1.33	5.00	26.88	0.00	5.00	0.00
	2	0.00	5.43	4.00	136.80	0.00	0.00	0.00

Network Results

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with signalised PRC	Item with worst unsignalised PRC	Its worst PRC
7	26/09/2022 14:48:20	26/09/2022 14:48:22	08:00	100	751.47	51.25	105.41	A1/2	1	5	A1/2	Box1/1	A1/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	105	-15	3169	1069	58.22	727.73	23.75	751.47

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Flow discrepancy	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
08:00-09:00	3169	33	✓	105	✓	-15	1183

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.99	58.22	727.73	61.46	1693.88	23.75	

Network Results: Queues and blocking

Time Segment	Initial storage (%)	Excess queue penalty (£ per cycle)	Wasted time total (s per cycle)
08:00-09:00	0.00	0.00	480.00

A8 - DM+CSLS 2024 PM D8 - DM+CSLS 2024 PM*

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run start time (HH:mm)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised FRC	Item with worst unsignalised FRC	Item with worst PR
8	26/09/2022 14:46:18	26/09/2022 14:46:20	17:00	17:00	100	354.70	23.81	67.18	A1/2	0	0	A1/2	Best/1	A1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DM+CSLS 2024 PM		D8	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DM+CSLS 2024 PM				17:00	<input type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Integregram broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution Threshold (%)	DOS Threshold (%)	Cruise scaling factor (%)	Use link scaling factor	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service parameter	PCU Length (m)	Calculate results for Path Segments	Generate for PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	5.75	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type	Default
Default	

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fees)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic mode
(ALL)			

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is one way	Traffic type	Allow Nearside Turn On Red
	Asxt	1	(unlimited)	✓	245.07						Normal	
	Bxxt	1	(unlimited)	✓	274.64						Normal	
	Cxxt	1	(unlimited)	✓	243.53						Normal	
	Dxxt	1	(unlimited)	✓	263.00						Normal	
		1		✓	20.76	✓	Sum of lanes	1800	✓		Normal	
	A1	2		✓	51.66	✓	Sum of lanes	1800	✓		Normal	
		3		✓	51.65	✓	Sum of lanes	1800	✓		Normal	
	B1	1		✓	26.15	✓	Sum of lanes	1800	✓		Normal	
		2		✓	26.15	✓	Sum of lanes	1800	✓		Normal	
	C1	1		✓	25.24	✓	Sum of lanes	1800	✓		Normal	
		2		✓	30.30	✓	Sum of lanes	1800	✓		Normal	
		3		✓	30.30	✓	Sum of lanes	1800	✓		Normal	
	D1	1		✓	25.11	✓	Sum of lanes	1800	✓		Normal	
		2		✓	25.11	✓	Sum of lanes	1800	✓		Normal	

LANES

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
	Asxt	1	(unlimited)			
	Bxxt	1	(unlimited)			
	Cxxt	1	(unlimited)			
	Dxxt	1	(unlimited)			
		1	(unlimited)			1800
	A1	2	(unlimited)			1800
		3	(unlimited)			1800
	B1	1	(unlimited)			1800
		2	(unlimited)			1800
	C1	1	(unlimited)			1800
		2	(unlimited)			1800
		3	(unlimited)			1800
	D1	1	(unlimited)			1800
		2	(unlimited)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
	Asxt	1	NetworkDefault	100	100		0.00		
	Bxxt	1	NetworkDefault	100	100		0.00		
	Cxxt	1	NetworkDefault	100	100		0.00		
	Dxxt	1	NetworkDefault	100	100		0.00		
	A1	1	NetworkDefault	100	100		3.00		
		2	NetworkDefault	100	100		8.00		
		3	NetworkDefault	100	100		8.00		
	B1	1	NetworkDefault	100	100		4.00		
		2	NetworkDefault	100	100		4.00		
	C1	1	NetworkDefault	100	100		4.00		
		2	NetworkDefault	100	100		5.00		
		3	NetworkDefault	100	100		5.00		
	D1	1	NetworkDefault	100	100		4.00		
		2	NetworkDefault	100	100		4.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
	Asxt	1	564
	Bxxt	1	68
	Cxxt	1	689
	Dxxt	1	176
	A1	1	18
		2	571
		3	36
	B1	1	145
		2	92
		3	92
	C1	1	22
		2	524
		3	35
	D1	1	63
		2	91

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
	A1	1	C	
		2	B	
		3	A	
	B1	1	E	
		2	D	
		1	F	
	C1	2	G	
		1	H	
	D1	1	I	
		2	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic mode	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(unlimited)				FarSIDE	20.37	13.35	5.40
2	(unlimited)				FarSIDE	12.44	8.29	5.40
3	(unlimited)				FarSIDE	20.29	13.53	5.40
4	(unlimited)				FarSIDE	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
1	ALL	100

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
1	ALL	100	100		0.00		

Local OD Matrix - Local Matrix: 1

OD Matrix	Name	Use for report point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on traffic arms	Allow looped paths on traffic nodes	Copy flows from	Matrix to copy flows from	Limit paths by length	Limit paths by number	Path length limit multiplier	Has degree of saturation limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		1.25	

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	0	15	91	48	
2	118	0	27	92	
3	22	35	0	524	
4	36	18	571	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	0	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
1	1	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
1	2	(untitled)	C1/1, C1/2, C1/3	Cexit/1	#00FF00
1	3	(untitled)	A1/3, A1/2, A1/1	Aexit/1	#FFFFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path Items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	22
1	2		3	2	C1/3, Bexit/1	Normal	35
1	3		3	4	C1/2, Aexit/1	Normal	524
1	4		4	1	A1/3, Dexit/1	Normal	36
1	5		4	3	A1/2, Cexit/1	Normal	571
1	6		4	2	A1/1, Bexit/1	Normal	18
1	7		1	2	D1/1, Bexit/1	Normal	15
1	8		1	4	D1/1, Aexit/1	Normal	48
1	9		2	1	B1/1, Dexit/1	Normal	118
1	10		2	3	B1/1, Cexit/1	Normal	27
1	11		1	3	D1/2, Cexit/1	Normal	91
1	12		2	4	B1/2, Aexit/1	Normal	92

Signal Timings

Network Default: 100s cycle time, 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	46	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	91, 104, 132, 153, 166

Intergreen Matrix for Controller Stream 1

From	To	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A	A	5	5	6	6	5	6	5	5	6	5	5	5	8	
A	B		5	5	5	5	5	6	5	6	5	5	7		
A	C									6	7	5	6		
A	D	6	5					5	5	8	5				
A	E	5	5					7	6	5	5	5	7	8	
A	F	6						7						5	6
A	G	5						6			5	5	7	5	
A	H	6	6	5	8			5	5	5	5	8	5		
A	I	5	6	7	5	5	5	5	5	5	7	8	5		
A	J	5								5	5			8	5
A	K	21	21	21	21	21	21	21	21	21	21				
A	L									13	13	13			
A	M	21								21	21	21	21		
A	N	13								13	13	13	13		

Interstage Matrix for Controller Stream 1

From	To				
	1	2	3	4	5
1	0	6	7	5	7
2	6	0	6	5	8
3	7	5	0	5	8
4	5	6	5	0	8
5	2	1	2	1	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	7	91	84	1	46
	2	✓	2	A,H	97	104	7	1	7
	3	✓	3	E,I	110	132	22	1	7
	4	✓	4	D,J	137	153	16	1	7
	5	✓	5	K,L,M,N	161	166	5	1	5

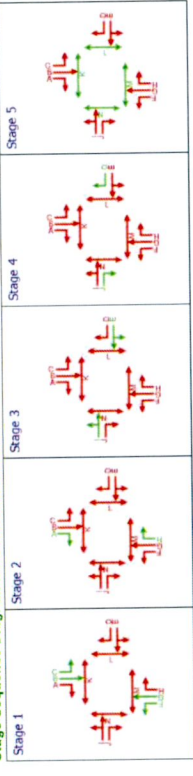
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	97	104	7
	B	1	✓	7	91	84
	C	1	✓	7	91	84
	D	1	✓	137	153	16
	E	1	✓	110	132	22
	F	1	✓	7	91	84
	G	1	✓	97	104	7
	H	1	✓	110	132	22
	I	1	✓	137	153	16
	J	1	✓	161	166	5
	K	1	✓	158	166	8
	L	1	✓	161	166	5
	M	1	✓	158	166	8
	N	1	✓	158	166	8

Traffic Stream Green Times

Am	Traffic Stream	Traffic Node	Controller Stream	Green Period 1			
				Phase	Start	End	Duration
AI	1		1	C	7	91	84
AI	2		1	B	7	91	84
AI	3		1	A	97	104	7
B1	1		1	E	110	132	22
B1	2		1	D	137	153	16
C1	1		1	F	7	91	84
C1	2		1	G	7	91	84
C1	3		1	H	97	104	7
D1	1		1	I	110	132	22
D1	2		1	J	137	153	16

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Am	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)	
														1
17:00-18:00	Axat	1	0	Unrestricted	664	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		2	67	34	4150	1800	84	25.38	0.48	15.84	1.80	0.12	1.92	
		3	45	100	36	1800	7	101.79	1.93	24.11	14.45	0.48	14.93	
	Bexit	1	0	Unrestricted	68	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	63	43	145	1800	22	87.47	7.37	184.27	50.03	1.83	51.86	
	Dexit	1	0	Unrestricted	689	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	54	66	92	1800	16	90.01	4.68	117.06	32.66	1.17	33.83	
	B1	1	63	43	145	1800	22	87.47	7.37	184.27	50.03	1.83	51.86	
		2	54	66	92	1800	16	90.01	4.68	117.06	32.66	1.17	33.83	
	C1	1	62	46	524	1800	84	38.75	19.85	397.02	80.08	4.92	85.01	
		2	44	105	35	1800	7	100.88	1.87	73.91	2.89	0.72	18.08	
	D1	1	54	68	91	1800	16	89.69	4.62	115.61	32.19	1.15	33.34	
		2	54	68	91	1800	16	89.69	4.62	115.61	32.19	1.15	33.34	

Traffic Stream Results: Flows and signals

Time Segment	Am	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow flow (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual cycle (s)	
17:00-18:00	Axi	1	664	664	0		Unrestricted	Unrestricted	0		Unrestricted	0.87	180	
		Bxi	1	68	68	0		Unrestricted	Unrestricted	0		Unrestricted	1.07	180
		Cxi	1	689	689	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	180
		Dxi	1	176	176	0		Unrestricted	Unrestricted	0		Unrestricted	1.15	180
	B1	1	18	18	0		1800	850	2	4150	0.00	84	84	
		2	571	571	0		1800	850	67	34	0.00	84	84	
		3	36	36	0		1800	81	45	100	0.00	7	7	
		4	145	145	0		1800	230	63	43	0.00	22	22	
	C1	1	52	52	0		1800	170	54	66	0.00	16	16	
		2	22	22	0		1800	850	3	3377	0.00	84	84	
		3	524	524	0		1800	850	62	46	0.00	84	84	
		4	35	35	0		1800	86	44	106	0.00	7	7	
D1	1	63	63	0		1800	230	27	229	0.00	22	22		
	2	91	91	0		1800	170	54	68	0.00	16	16		

Traffic Stream Results: Stops and delays

Time Segment	Am	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-min)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	Axi	1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
		Bxi	1	32.96	0.00	0.00	0.00	0.00	0.00
		Cxi	1	29.22	0.00	0.00	0.00	0.00	0.00
		Dxi	1	31.56	0.00	0.00	0.00	0.00	0.00
	B1	1	2.49	25.38	0.13	1.80	52.15	9.39	0.12
		2	6.20	41.01	6.50	92.37	78.27	446.93	5.80
		3	6.20	101.79	1.02	14.45	108.27	38.26	0.48
		4	3.14	90.01	2.30	32.66	101.02	92.94	1.17
	C1	1	3.03	25.47	0.16	2.21	52.71	11.60	0.15
		2	3.64	38.75	5.64	80.08	74.83	392.61	4.92
		3	3.64	100.89	0.98	13.93	105.81	37.03	0.46
		4	3.01	73.91	1.29	18.37	90.97	57.31	0.72
D1	1	3.01	89.69	2.27	32.19	100.87	91.79	1.15	
	2	3.01	89.69	2.27	32.19	100.87	91.79	1.15	

Traffic Stream Results: Queues and blocking

Time Segment	Am	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)	Estimated blocking	
17:00-18:00	Axi	1	0.00	0.00	42.62	0.00	0.00	15.00	0.00	
		Bxi	1	0.00	0.00	47.76	0.00	0.00	131.00	0.00
		Cxi	1	0.00	0.00	42.35	0.00	0.00	15.00	0.00
		Dxi	1	0.00	0.00	45.74	0.00	0.00	106.00	0.00
	B1	1	0.00	0.48	3.00	16.84	0.00	84.00	0.00	
		2	0.00	22.73	8.00	284.10	0.00	0.00	4.00	
		3	0.00	1.93	8.00	24.11	0.00	0.00	4.00	
		4	0.00	7.37	4.00	194.27	0.00	0.00	0.00	
	C1	1	0.00	4.68	4.00	117.06	0.00	83.00	0.00	
		2	0.00	0.59	4.00	14.68	0.00	0.00	0.00	
		3	0.00	19.85	5.00	397.02	0.00	4.00	0.00	
		4	0.00	1.97	5.00	37.34	0.00	0.00	0.00	
D1	1	0.00	2.89	4.00	72.16	0.00	0.00	0.00		
	2	0.00	4.62	4.00	115.61	0.00	0.00	0.00		

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with unsignalled PRC	Item with worst over PRC
8	26/09/2022 14:48:18	26/09/2022 14:48:20	17:00	100	354.70	23.81	67.18	A1/2	0	0	A1/2	A1/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	67	0	3194	1146	26.64	338.09	16.60	354.70

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Flow discrepancy	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
17:00-18:00	3194	0		67		34	1196

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	17.09	26.64	23.81	338.09	41.46	1324.13	16.60

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per cycle)	Wasted time total (s per cycle)
17:00-18:00	397.02	0.00	444.00

A9 - DM+CSLS 2029 AM D9 - DM+CSLS 2029 AM*

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (s per hr)	Total network length (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst PRC
9	26/09/2022 14:48:12	26/09/2022 14:48:13	08:00	100	1061.48	72.78	112.46	A1/2	2	9	A1/2	Bx41/1	A1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DM+CSLS 2029 AM		D9	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:MM)	Locked
DM+CSLS 2029 AM				08:00	<input type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modellled time period (min)
100	<input type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weights	Use link scaling weights	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate for PDM Profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Splits	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
(Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
(ALL)			

Am Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
Asxt	1	(untitled)	✓	245.07						Normal	
Bxxt	1	(untitled)	✓	274.64						Normal	
Cxxt	1	(untitled)	✓	243.53						Normal	
Dxxt	1	(untitled)	✓	263.00						Normal	
	1	(untitled)	✓	20.76	✓	Sum of lanes	1600	✓		Normal	
A1	2	(untitled)		51.66	✓	Sum of lanes	1800	✓		Normal	
	3	(untitled)		51.65	✓	Sum of lanes	1800	✓		Normal	
B1	1	(untitled)		26.15	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)		26.15	✓	Sum of lanes	1800	✓		Normal	
C1	1	(untitled)		30.30	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)		30.30	✓	Sum of lanes	1800	✓		Normal	
D1	1	(untitled)		25.11	✓	Sum of lanes	1800	✓		Normal	
	2	(untitled)		25.11	✓	Sum of lanes	1800	✓		Normal	

Lanes

Am Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Asxt	1	(untitled)			
Bxxt	1	(untitled)			
Cxxt	1	(untitled)			
Dxxt	1	(untitled)			
	1	(untitled)			1800
A1	2	(untitled)			1800
	3	(untitled)			1800
B1	1	(untitled)			1800
	2	(untitled)			1800
C1	1	(untitled)			1800
	2	(untitled)			1800
D1	1	(untitled)			1800
	2	(untitled)			1800

Modelling

Am Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Asxt	1	NetworkDefault	100	100		0.00		
Bxxt	1	NetworkDefault	100	100		0.00		
Cxxt	1	NetworkDefault	100	100		0.00		
Dxxt	1	NetworkDefault	100	100		0.00		
A1	1	NetworkDefault	100	100		3.00		
	2	NetworkDefault	100	100		8.00		
	3	NetworkDefault	100	100		8.00		
B1	1	NetworkDefault	100	100		4.00		
	2	NetworkDefault	100	100		4.00		
C1	1	NetworkDefault	100	100		4.00		
	2	NetworkDefault	100	100		5.00		
	3	NetworkDefault	100	100		5.00		
D1	1	NetworkDefault	100	100		4.00		
	2	NetworkDefault	100	100		4.00		

Modelling - Advanced

Am Traffic Stream	Initial queue (PCU)	Type of Vehicle-In-Service	Vehicle-In-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Am Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	100	100

Normal traffic - Advanced

Am Traffic Stream	Dispersion type for Normal Traffic
(ALL)	NetworkDefault

Flows

Am Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
Asxt	1	575
Bxxt	1	105
Cxxt	1	823
Dxxt	1	100
A1	1	22
	2	686
	3	31
B1	1	47
	2	40
	4	40
C1	1	28
	2	562
	3	28
	28	28
D1	1	128
	2	131

Signals

Am Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	C	
	2	B	
	3	A	
B1	1	E	
	2	D	
	1	F	
C1	2	G	
	1	H	
D1	1	I	
	2	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)				FarSIDE	20.37	13.55	5.40
2	(untitled)				FarSIDE	12.44	8.29	5.40
3	(untitled)				FarSIDE	20.29	13.53	5.40
4	(untitled)				FarSIDE	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (ped)	Max queue limit	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00			

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Matrix to copy flows from	Limit paths by length	Path length multiplier	Limit paths by number	Path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	1.25		

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	0	55	131	73	
2	41	0	6	40	
3	28	28	0	562	
4	31	22	686	0	

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	D1/1, D1/2	Dexit/1	#0000FF
	2	(untitled)	B1/1, B1/2	Bexit/1	#FF0000
	3	(untitled)	C1/1, C1/2, C1/3	Cexit/1	#00FF00
	4	(untitled)	A1/3, A1/2, A1/1	Aexit/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	28
	2		3	2	C1/3, Bexit/1	Normal	28
	3		3	4	C1/2, Aexit/1	Normal	562
	4		4	1	A1/3, Dexit/1	Normal	31
	5		4	3	A1/2, Cexit/1	Normal	686
	6		4	2	A1/1, Bexit/1	Normal	22
	7		1	2	D1/1, Bexit/1	Normal	55
	8		1	4	D1/1, Aexit/1	Normal	73
	9		2	1	B1/1, Dexit/1	Normal	41
	10		2	3	B1/1, Cexit/1	Normal	6
	11		1	3	D1/2, Cexit/1	Normal	131
	12		2	4	B1/2, Aexit/1	Normal	40

Signal Timings

Network Default: 100s cycle time; 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	46	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	E, I	1
	2	D, J	1
	3	M, K, N, L	1
	4	C, F, B, G	1
	5	H, A	1

Losing / Gaining Phase Delays

Controller stream	Delay	Type	Phase	From stage	To stage	Relative delay
1	1	Losing	I	1	2	3
	2	Losing	N	3	4	8
	3	Losing	L	3	4	8
	4	Losing	F	4	5	1
	5	Losing	B	4	5	1
	6	Losing	G	4	5	2
	7	Losing	A	5	1	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage ids	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 64, 77, 157, 170

Intergreen Matrix for Controller Stream 1

		To													
		A	B	C	D	E	F	G	H	I	J	K	L	M	N
From	A		5	5	6	6	6	6	6	6	5	5	5	5	8
	B		5	5	5	5	5	5	5	5	6	5	5	7	
	C			6	7	6	7	5	6	5	6	5	5	6	
	D			6	5	5	5	5	5	5	5	5	5	5	
	E			5	5	5	5	5	5	5	5	5	5	5	7
F				7	6	5	5	5	5	5	5	5	5	6	
G				6	6	6	6	6	6	6	5	5	5	5	
H				6	6	6	6	6	6	6	5	5	5	5	
I				5	6	7	5	5	5	5	5	5	5	5	
J				5	5	5	5	5	5	5	5	5	5	5	
K				21	21	21	21	21	21	21	21	21	21	21	
L				13	13	13	13	13	13	13	13	13	13	13	
M				21	21	21	21	21	21	21	21	21	21	21	
N				13	13	13	13	13	13	13	13	13	13	13	

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	8	8	7	5
	2	5	0	8	5	6
	3	21	21	0	21	21
	4	7	5	7	0	7
	5	7	5	8	6	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	E.I	1	177	27	30	1	6
	2	✓	D.J	2	35	64	29	1	7
	3	✓	M.K.N.L	3	72	77	5	1	5
	4	✓	C.F.S.G	4	98	157	59	1	45
	5	✓	H.A	5	164	170	6	1	6

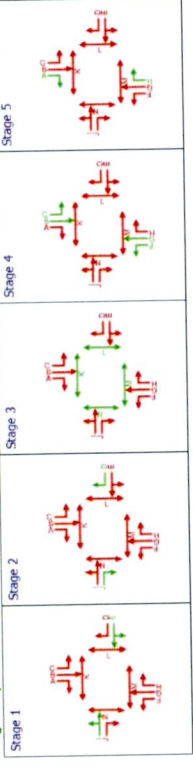
Resultant Phase Green Periods

Controller stream	Phase	Is base green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	✓	✓	164	171	7
	B	✓	✓	98	158	60
	C	✓	✓	98	157	59
	D	✓	✓	35	64	29
	E	✓	✓	176	27	31
	F	✓	✓	98	158	60
	G	✓	✓	98	159	61
	H	✓	✓	163	170	7
	I	✓	✓	177	30	33
	J	✓	✓	32	64	32
	K	✓	✓	72	77	5
	L	✓	✓	69	85	16
	M	✓	✓	72	77	5
	N	✓	✓	69	85	16

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1	
					Start	End
AI	1		1	C	98	157
AI	2		1	B	98	158
AI	3		1	A	164	171
B1	1		1	E	176	27
B1	2		1	D	35	64
C1	1		1	F	98	158
C1	2		1	G	98	159
C1	3		1	H	163	170
D1	1		1	I	177	30
D1	2		1	J	32	64

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (PCU/hr)	Calculated flow entering (PCU/hr)	Calculated sat flow (per hr)	Actual green (s per cycle)	Mean Delay (s per Veh)	Mean max delay (s) (PCU)	Utilised storage (%)	Weighted delay (£ per hr)	Weighted stops (£ per hr)	Performance Index (£ per hr)	
08:00-09:00	Aexit	1	0	Unrestricted	675	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		Bexit	1	0	Unrestricted	105	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Cexit	1	0	Unrestricted	747	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	0	Unrestricted	100	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	112	-20	2355	22	1800	59	40.67	0.74	24.67	3.53	0.18	3.71
		3	38	132	31	686	1800	60	271.12	71.91	898.90	733.63	15.47	749.09
	B1	1	15	513	47	1800	31	65.45	1.98	49.60	11.76	0.48	12.26	0.66
		2	13	575	40	1800	29	64.87	1.71	42.76	10.24	0.43	10.66	0.66
		3	91	-1	1661	28	1800	60	40.12	0.93	23.36	4.43	0.23	4.95
	C1	1	35	157	28	1800	7	95.43	1.45	28.92	10.54	0.36	10.90	0.66
		2	38	139	128	1800	33	69.93	5.70	142.38	33.79	1.42	35.21	0.66
		3	40	127	131	1800	32	68.32	5.88	146.99	35.30	1.48	36.76	0.66

Traffic Stream Results: Flows and signals

Time Segment	Am Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow leaving (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow	Calculated capacity	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modules of error	Actual green cycle (s)
08:00-09:00	Aexit 1	675	675	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	180
	Bexit 1	105	105	0		Unrestricted	Unrestricted	0		Unrestricted	1.03	180
	Cexit 1	747	747	76	✓	Unrestricted	Unrestricted	0		Unrestricted	1.05	180
	Dexit 1	100	100	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	180
	A1	22	22	0		1800	600	4		2385	0.00	59
	B1	586	610	0		1800	610	112	✓	-20	0.00	60
	C1	31	31	0		1800	80	39		132	0.00	7
	D1	47	47	0		1800	320	15		513	0.00	31
	A1	40	40	0		1800	300	13		575	0.00	29
	B1	28	28	0		1800	610	5		1881	0.00	60
	C1	562	562	0		1800	620	91	✓	-1	0.00	61
	D1	128	128	0		1800	80	35		157	0.00	7
	131	131	0		1800	340	38		139	0.00	33	
					1800	330	40		127	0.00	32	

Traffic Stream Results: Stops and delays

Time Segment	Am Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	Aexit 1	29.41	0.00	0.00	0.00	0.00	0.00	0.00
	Bexit 1	32.96	0.00	0.00	0.00	0.00	0.00	0.00
	Cexit 1	29.22	0.00	0.00	0.00	0.00	0.00	0.00
	Dexit 1	31.56	0.00	0.00	0.00	0.00	0.00	0.00
	A1	2.49	40.67	0.25	3.53	66.63	14.66	0.18
	B1	6.20	271.12	51.66	733.63	202.24	1233.85	15.47
	C1	3.14	64.87	0.72	10.24	84.85	33.54	0.43
	D1	3.03	40.12	0.31	4.43	66.09	18.50	0.23
	A1	3.64	80.46	12.56	178.36	107.01	601.39	7.54
	B1	3.64	95.43	0.74	10.54	102.52	28.71	0.36
	C1	3.01	66.93	2.38	33.79	88.16	112.87	1.42
	D1	3.01	66.32	2.49	35.30	89.08	116.70	1.46

Traffic Stream Results: Queues and blocking

Time Segment	Am Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)	Estimated blocking
08:00-09:00	Aexit 1	0.00	0.00	42.62	0.00	0.00	32.00	
	Bexit 1	0.00	0.00	47.76	0.00	0.00	108.00	
	Cexit 1	0.00	0.00	42.35	0.00	0.00	42.00	
	Dexit 1	0.00	0.00	45.74	0.00	0.00	113.00	
	A1	0.00	0.74	3.00	24.87	0.00	58.00	
	B1	0.00	71.91	8.00	898.90	0.00	0.00	
	C1	0.00	1.63	8.00	20.94	0.00	5.00	
	D1	0.00	1.71	4.00	49.60	0.00	25.00	
	A1	0.00	0.93	4.00	23.95	0.00	26.00	
	B1	0.00	30.48	5.00	609.52	0.00	59.00	
	C1	0.00	1.45	5.00	28.92	0.00	5.00	
	D1	0.00	5.70	4.00	142.58	0.00	0.00	
				146.99	0.00	0.00		

Network Results

Run Summary

Analysis sat used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	It's not over PR
9	26/09/2022 14:48:12	26/09/2022 14:48:13	08:00	100	1061.49	72.78	112.48	A1/2	2	9	A1/2	Box1/1	A1/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	112	-20	3330	1089	76.66	1033.50	27.99	1061.49

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
08:00-09:00	3330	3254	76	✓	112	✓	-20	1183

Network Results: Stops and delays

Time Segment	Mean Cruise Time	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	16.84	76.66	72.78	1033.50	71.64	2231.96	27.99

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)
08:00-09:00	898.90	0.00	476.00

A10 - DM+CSLS 2029 PM D10 - DM+CSLS 2029 PM*

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:MM)	Network Cycle Time (s)	Performance Index (E per hr)	Total network delay (PCL/hr/h)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over saturated PR
10	26/09/2022 14:48:14	26/09/2022 14:48:15	17:00	100	390.04	26.19	71.65	A1/2	0	0	A1/2	Bexill/1	A1/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DM+CSLS 2029 PM		D10	<input checked="" type="checkbox"/>	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:MM)	Locked
DM+CSLS 2029 PM				17:00	<input checked="" type="checkbox"/>

Network Options

Network timings

Network cycle time (s)	Restricted to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
100	<input checked="" type="checkbox"/>	60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Service	PCU Length (m)	Calculate results for path Segments	Generate profile Data
1	90	100	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Complex	Uniform (TRANSYT)	5.75	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ⁻²)	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT profile accuracy
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Offsets And Green Spills	<input checked="" type="checkbox"/>

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Master controller	Offsets relative to master controller	Master controller offset for each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 0.5, 0.5, 0.05, 0.05	<input checked="" type="checkbox"/>	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm (ALL)	Name	Description	Traffic node

Traffic Streams

Am Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is one way	Traffic type	Allow Hearse Turn On Red
Axst	1	(untitled)	✓	245.07						Normal	
Bxst	1	(untitled)	✓	274.64						Normal	
Cxst	1	(untitled)	✓	243.53						Normal	
Dxst	1	(untitled)	✓	263.00						Normal	
A1	1	(untitled)	✓	20.78	✓	Sum of lanes	1800	✓		Normal	
A2	2	(untitled)	✓	51.65	✓	Sum of lanes	1800	✓		Normal	
A3	3	(untitled)	✓	51.65	✓	Sum of lanes	1800	✓		Normal	
B1	1	(untitled)	✓	26.15	✓	Sum of lanes	1800	✓		Normal	
B2	2	(untitled)	✓	26.15	✓	Sum of lanes	1800	✓		Normal	
B3	3	(untitled)	✓	25.24	✓	Sum of lanes	1800	✓		Normal	
C1	1	(untitled)	✓	30.30	✓	Sum of lanes	1800	✓		Normal	
C2	2	(untitled)	✓	30.30	✓	Sum of lanes	1800	✓		Normal	
C3	3	(untitled)	✓	25.11	✓	Sum of lanes	1800	✓		Normal	
D1	1	(untitled)	✓	25.11	✓	Sum of lanes	1800	✓		Normal	
D2	2	(untitled)	✓	25.11	✓	Sum of lanes	1800	✓		Normal	

LANES

Am Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
Axst	1	1	(untitled)		
Bxst	1	1	(untitled)		
Cxst	1	1	(untitled)		
Dxst	1	1	(untitled)		
A1	1	1	(untitled)		1800
A2	2	1	(untitled)		1800
A3	3	1	(untitled)		1800
B1	1	1	(untitled)		1800
B2	2	1	(untitled)		1800
B3	3	1	(untitled)		1800
C1	1	1	(untitled)		1800
C2	2	1	(untitled)		1800
C3	3	1	(untitled)		1800
D1	1	1	(untitled)		1800
D2	2	1	(untitled)		1800

Modelling

Am Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
Axst	1	NetworkDefault	100	100		0.00		
Bxst	1	NetworkDefault	100	100		0.00		
Cxst	1	NetworkDefault	100	100		0.00		
Dxst	1	NetworkDefault	100	100		0.00		
A1	1	NetworkDefault	100	100		3.00		
A2	2	NetworkDefault	100	100		8.00		
A3	3	NetworkDefault	100	100		8.00		
B1	1	NetworkDefault	100	100		4.00		
B2	2	NetworkDefault	100	100		4.00		
B3	3	NetworkDefault	100	100		4.00		
C1	1	NetworkDefault	100	100		5.00		
C2	2	NetworkDefault	100	100		5.00		
C3	3	NetworkDefault	100	100		5.00		
D1	1	NetworkDefault	100	100		4.00		
D2	2	NetworkDefault	100	100		4.00		

Modelling - Advanced

Am Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	0.00	NetworkDefault	Not Included	NetworkDefault	0.50	✓	180

Normal traffic - Modelling

Am Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	100	100

Normal traffic - Advanced

Am Traffic Stream	Dispersion type for Normal Traffic
(ALL)	NetworkDefault

Flows

Am Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
Axst	707	707
Bxst	1	73
Cxst	1	735
Dxst	1	185
A1	2	20
A2	3	38
B1	1	153
B2	2	88
B3	1	23
C1	2	555
C2	3	37
D1	1	66
D2	2	97

Signals

Am Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	C	
A2	1	B	
A3	1	A	
B1	1	E	
B2	1	D	
B3	1	F	
C1	2	G	
C2	1	H	
D1	1	I	
D2	2	J	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic mode	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)				Farside	20.37	13.95	5.40
2	(untitled)				Farside	12.44	8.29	5.40
3	(untitled)				Farside	20.29	13.53	5.40
4	(untitled)				Farside	12.34	8.23	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	M	
2	1	L	
3	1	K	
4	1	N	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Matrix to copy flows from	Copy flows	Limit paths by multiplier	Limit by number	Path number limit
1	(untitled)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Path Equalisation			<input checked="" type="checkbox"/>			1.25		

Normal Input Flows (PCU/hr)

From	To	1	2	3	4
1	1	0	16	97	50
2	1	24	0	29	98
3	2	37	0	559	
4	3	38	20	609	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Exits	Colour
1	1	(untitled)	D1/1, D1/2	#E000FF
2	2	(untitled)	B1/1, B1/2	#FF0000
3	3	(untitled)	C1/1, C1/2, C1/3	#00FF00
4	4	(untitled)	A1/3, A1/2, A1/1	#FFFFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		3	1	C1/1, Dexit/1	Normal	23
2	2		3	2	C1/3, Bexit/1	Normal	37
3	3		3	4	C1/2, Aexit/1	Normal	559
4	4		4	1	A1/3, Dexit/1	Normal	38
5	5		4	3	A1/2, Cexit/1	Normal	609
6	6		4	2	A1/1, Bexit/1	Normal	20
7	7		1	2	D1/1, Bexit/1	Normal	16
8	8		1	4	D1/1, Aexit/1	Normal	50
9	9		2	1	B1/1, Dexit/1	Normal	124
10	10		2	3	B1/1, Cexit/1	Normal	29
11	11		1	3	D1/2, Cexit/1	Normal	97
12	12		2	4	B1/2, Aexit/1	Normal	98

Signal Timings

Network Default: 100s cycle time, 100 steps

Phases

Controller stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Traffic	
	B	(untitled)	46	300	0	0	Traffic	
	C	(untitled)	7	300	0	0	Traffic	
	D	(untitled)	7	300	0	0	Traffic	
	E	(untitled)	7	300	0	0	Traffic	
	F	(untitled)	7	300	0	0	Traffic	
	G	(untitled)	46	300	0	0	Traffic	
	H	(untitled)	7	300	0	0	Traffic	
	I	(untitled)	7	300	0	0	Traffic	
	J	(untitled)	7	300	0	0	Traffic	
	K	(untitled)	5	300	0	0	Pedestrian	0
	L	(untitled)	5	300	0	0	Pedestrian	0
	M	(untitled)	5	300	0	0	Pedestrian	0
	N	(untitled)	5	300	0	0	Pedestrian	0

Library Stages

Controller stream	Library stage	Phases in stage	User stage minimum (s)
1	1	B, C, F, G	1
	2	A, H	1
	3	E, I	1
	4	D, J	1
	5	K, L, M, N	1

Stage Sequences

Controller stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	91, 104, 132, 153, 166

Intergreen Matrix for Controller Stream 1

From	To	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A	A														
B	A														
C	A														
D	B														
E	B														
F	C														
G	C														
H	D														
I	D														
J	E														
K	E														
L	F														
M	F														
N	F														

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	6	7	5	7
	2	6	0	6	5	8
	3	7	5	0	5	8
	4	5	6	5	0	8
	5	21	21	21	21	0

Resultant Stages

Controller stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	B,C,F,G	7	91	84	1	46
	2	✓	2	A,H	97	104	7	1	7
	3	✓	3	E,I	110	132	22	1	7
	4	✓	4	D,J	137	153	16	1	7
	5	✓	5	K,L,M,N	161	166	5	1	5

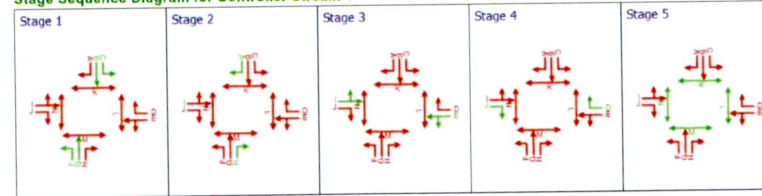
Resultant Phase Green Periods

Controller stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	97	104	7
	B	1	✓	7	91	84
	C	1	✓	7	91	84
	D	1	✓	137	153	16
	E	1	✓	110	132	22
	F	1	✓	7	91	84
	G	1	✓	7	91	84
	H	1	✓	97	104	7
	I	1	✓	110	132	22
	J	1	✓	137	153	16
	K	1	✓	161	166	5
	L	1	✓	158	166	8
	M	1	✓	161	166	5
	N	1	✓	158	166	8

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1		1	C	7	91	84
A1	2		1	B	7	91	84
A1	3		1	A	97	104	7
B1	1		1	E	110	132	22
B1	2		1	D	137	153	16
C1	1		1	F	7	91	84
C1	2		1	G	7	91	84
C1	3		1	H	97	104	7
D1	1		1	I	110	132	22
D1	2		1	J	137	153	16

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Am	Traffic Stream	Degree of saturation (%)	Practical reserve capacity	Calculated flow entering (PCU/hr)	Calculated sat flow	Actual green (s per cycle)	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)	
17:00-18:00	Aexit	1	0	Unrestricted	707	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00	
		Bexit	1	0	Unrestricted	73	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Cexit	1	0	Unrestricted	735	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
		Dexit	1	0	Unrestricted	185	Unrestricted	180	0.00	0.00	0.00	0.00	0.00	0.00
	A1	1	2	3725	20	1800	1800	84	25.42	0.53	17.79	2.01	0.13	2.14
		2	72	26	609	1800	1800	84	43.17	25.08	313.55	103.70	6.21	109.91
		3	48	89	38	1800	1800	7	103.89	2.06	25.69	15.54	0.51	16.05
	B1	1	67	35	153	1800	1800	22	89.88	7.91	197.67	54.24	1.97	56.21
		2	58	56	98	1800	1800	16	92.10	5.06	126.61	35.60	1.26	36.86
	C1	1	3	3226	23	1800	1800	84	25.49	0.61	15.34	2.31	0.15	2.46
		2	66	37	559	1800	1800	84	40.40	21.90	437.98	89.07	5.43	94.49
		3	46	95	37	1800	1800	7	102.72	1.99	39.83	14.99	0.50	15.49
	D1	1	29	214	86	1800	1800	22	74.21	3.03	75.69	19.32	0.75	20.07
		2	57	58	97	1800	1800	16	91.73	5.00	125.10	35.10	1.24	36.34