

SATURN

ATKINS

Dirck Van Vliet

'~~Borough~~' Group Statistics



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Presentation to SATURN User Group Meeting

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Plan Design Enable

Group Statistics (i) - Overview

Currently, assignment statistics can be automatically generated during the assignment process broken down by capacity index, $BYCC=T$

These can be replaced by **Borough Statistics**, using the alternative: $BYBORO=T$

The allocation data to the boroughs is undertaken by allocating nodes to the borough; turn delays etc encountered at the node and all travel time/distance on links entering the node (i.e. with “**B-node**”) are aggregated to give the statistics.

Group Statistics (ii) - Allocating

If the node numbering strictly follows the TfL conventions, the borough can be deduced directly from the node number and the option **TFL=T**

Alternatively, a “**Node to Group**” (.N2G) file can be given that is a list of nodes and corresponding “borough” or group (analogous to a .Z2S file for defining “Zones to Sectors”)

Note: If a node is unallocated (or its borough cannot be deduced using TFL=T), it will be aggregated into a “dummy” group/borough “0”.

Group Statistics (iii) – Generating

The automatically generated statistics may be printed out using “Option 4” in SATLOOK.

However, “Option 5” can be used to generate an alternative grouping using a different “Node to Group” (.N2G) file from the original set up.

*Further development work for “Link to Group” (.L2G) file
- A more efficient process than currently available*

Group Statistics (iv) - Output

Extract using BYBORO=T, TFL=T

TOTAL FLOWS - LINKS WITH TfL borough = 1 City of London

TRANSIENT QUEUES	=	694.3	47.5	741.8	PCU. HRS.
OVER-CAPACITY QUEUES	=	235.1	55.8	290.9	PCU. HRS.
LINK: FREE FLOW TIME	=	539.8	25.8	565.5	PCU. HRS.
DELAYS	=	8.1	0.8	8.9	PCU. HRS.
CRUISE TIME	=	547.9	26.6	574.5	PCU. HRS.
TOTAL TRAVEL TIME	=	1477.3	129.9	1607.2	PCU. HRS.
TRAVEL DISTANCE	=	15670.8	786.9	16457.7	PCU. KMS.
OVERALL AVERAGE SPEED	=	10.6	6.1	10.2	KPH
FUEL CONSUMPTION	=	3039.3	217.9	3257.2	LITRES

TOTAL FLOWS - LINKS WITH TfL borough = 2 Westminster

TRANSIENT QUEUES = 1945.3 65.3 2010.7 PCU. HRS. ... and
 SO ON ...