SATURN User Group Meeting: Epsom November 28 2013

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BATTING ORDER

- Le Grand Depart! (AKA Entry Rant!)
- 11.2 and/or 11.3 Releases
- Bugs in 11.2 (App. E.8)
- Specific Program Upgrades(App. D20)
- Ideas and Objectives for 13/14
- Exit Rant

Le Grand Depart

- WebTag Unit 3.19 out (Hurrah!)
- On-going concerns with speed-flow curves
- Concerns over the convergence of supply-demand models due to cost definition differences and …
- … distance-based cut-offs …
- … Non-uniqueness of path flows

Releases of 11.2 in 2012/13

- 11.2.1 – Beta release November 2012
- 11.2.5 – Full release March 2013
- 11.2.6 – Partial update release June 2013
- 11.2.10 – Current in-house version morphing into …
- … 11.3.1?

11.2 Bugs (E.8)

- P1X - minor problems with cordoning
- P1X – key files may confuse the “check number” with text records
- P1X: SLA + SPIDER problems if spider links > normal links. Corrected in 11.2.6.
- SATALL – elastic assignment does not use SPIDER and cannot create UFO files

SATNET (11.2)

- Nodes may be “grouped” either into “traffic boroughs” using TfL 5-digit node numbering conventions or into explicitly defined groups – FILN2G.
- Errors under TfL if all a node’s neighbours are in different boroughs
- Tests when LCY differs from neighbours (15.15.3)

SATNET (11.2)

- Extra dummy links introduced at external simulation nodes with two internal arms – permits turns in two directions.
- Certain link-based errors are recorded at both A- and B-node.
- Certain (minor) dimensions increased
- Define FF/cap times for link capacity-restraint as extra **delays** added to link times

SATALL (11.2)

- As ever, differences in outputs due (mostly) to simulation differences
- Substantial improvements in matching UFO (bush) solutions to UFC
- MUC SAVEIT can use PARTAN (SPARTA = T) for better convergence/less CPU

Simulation (11.2)

- Flares connected to multiple lanes modelled (quite) differently
- New rules to create “rivers” from turns out of links where flow > mid link capacity. Very rare but potentially big differences.
- Output stats disaggregated by TfL traffic boroughs or groups
- Flow-averaged link times from CLICKS in DA 4008 (by vehicle) and 4018 (by PCU)

Average Times with CLICKS

- Averaging can be weighted either by PCU or by vehicle (DA 4018 / 4008)
- PCU better for aggregate stats (SATLOOK)
- Vehicle better for validation (P1X)
- Other applications?

P1X (11.2)

- P1X net 555 NG – instant node graphics
- Timing point validation stats by individual link
- Extra controls on Bandwidth annotation
- “Hallmark” bandwidth conventions to indicate timing point validation
- Joyrides/timing validation based on **average** turn delays per link
- “P1XDUMP net 40” dumps internal link code 40, …40U6 for user class 6

P1X (11.2)

- Display counts across screenlines (“sets”) …
- … plus goodness of fit count stats (Validation) by screenline/set
- Dump turn sat flows and/or lanes with a negative sign to denote bus-only in .dat files

MX (11.2)

- Matrices may be defined as TFL compliant ...
- … and automatically aggregated to borough/sector
- Equally borough-borough matrices may be “expanded” into zone-to-zone; e.g., for factoring
- Tool-bar option to jump to the next level in screen displays

SATME2 / SATPIJA (11.2)

- SATPIJA uses UFO files and/or SPIDER
- SATME2 copies the UFP into direct access files to process combined 666 counts – speed up by 100x
- More data on .ME2 files for display in P1X (e.g., by screenline)

General Changes

- SKIMDA net mat kode – Forest skim of DA code “kode” into mat.ufm
- Much improved CPU in SATCH by using SPIDER

Ideas/Objectives: 13/14

- Bus-lane setbacks modelled as per flares
- Introduce proportionality into UFO bushes
- Introduce CASSINI rules directly into SATALL
- Extend SPIDER/UFO analyses
- Improved warm starts + FW to OBA transition
- Counts A-B-C on non-adjacent nodes to be based on SPIDER links

EXIT RANT (To SATURN Users and Atkins)

- Need to think more like modellers ...
- ... And programmers
- More suggestions for incremental changes
- More attention paid to errors
- Go for optimum convergence, not sub-optimal targets
- Warm starts possibly under-used