

SATURN User Group Meeting: Epsom November 27 2014

Presentation by Dirck Van Vliet

BATTING ORDER

- 11.3 Releases
- Bugs in 11.2 (App. E.8) and 11.3.5 & 11.3.7 (E.9)
- Specific Program Upgrades (App. D21)
- Ideas and Objectives for 14/15

Releases of 11.3 in 2013/14

- 11.3.5 – Full release April 2014
- 11.3.7 – Partial update release October 2014
- 11.3.8 – Current in-house version morphing into 11.3.9 ...
- ... 11.4.1?

11.2/3 Bugs (E.8/9)

- SATALL - various crashes (E8 13 & 14)
- SATUFC & SATUFO – various problems plus confusion between .UFO and .UFC
- Bus statistics – misses out veh-hrs, veh-kms with bus lanes (E.9 (9))

11.3.7 Post-release Bugs (E.9)

- SATSUMA – fails for >10 user classes (10)
- SATNET – SAVUFO and USEUFO = T;
Subsequent error in P1X (11)
- SATALL hangs and/or crashes (12,13,17)
- P1X – SLA and cordoning unreliable using
SPIDER and SAVEIT UFC
- P1X – Recreate .dat files, 2 x IXSHFT
- P1X – SLA MUC matrix using SPIDER
- “Hysteresis” simulating signals plus flares

SATNET (11.3)

- BYCAPI and BYGRP added to define grouped simulation totals
- Loop convergence defaults follow DfT:
KONSTP = 5 – **both** Gap and Flows
- Free format count data – FREE77 = T – defined (“pure” CSV)
- Extra checks for SF powers and CI in “wrong” columns

SATALL (11.3)

- Improvements to the calculation of .UFO files, including SATUFO and SATUFC
- UFC/UFO files are **not** created using MASL n except by a command line:
SATALL net MASL 1 SAVEIT

Simulation (11.3.7)

- Several minor upgrades post 11.3.5
- Flares connected to multiple lanes include a “knock-on” effect to adjacent lanes/turns
- Thus 11.3.5 differs from 11.2.5 and 11.3.7 differs from 11.3.5 and ...

Simulation (11.3.8)

- Very very slight changes to lane choice algorithms – slightly different numbers
- Reduced hysteresis
- Blocking back with $QUEEN = T$ will be “improved” under 11.3.8.
- Hence 11.3.8 differs from 11.3.7.

Average Times with CLICKS

- Averaging can be weighted either by PCU or by vehicle (DA 4018 / 4008)
- Alternative annotation displays in P1X
- Used in Joyrides and Route Validation
- CLICKS times/speeds printed under node stats

P1X (11.3)

- SLA “in a basket”
- Maximum nodes under SLA now 19
- Screen “interrupts” reduced
- (Bus) Routes may be “classified” prior to selection
- ... or selected by their text name
- Joyride tracing can be fast-forwarded to the end
- P1XDUMP: dumps link data as per DBDUMP

P1X (11.3)

- 10 Worst Convergence stats may be limited to one printed record per link or per node ...
- ... and they may be automatically stored in a DB column and displayed sorted to the screen

MX (11.3)

- Increased options to compress zonal matrices into “grouped” matrices and vice-versa.
- .Z2G files denote zone-to-group mappings
- Batch files such as MXZ2G, MXZ2B, MXG2Z, etc.
- Applications within “group-based” SATME2
- “Reboot” restores the original matrix

SATPIJA (11.3)

- Works with .UFO files to speed up calculations
- Plus USESPI to use spider networks (BETA!)

SATME2 (11.3)

- .LPM file contains a list of all Warnings etc. at the bottom
- Direct comparison of trip end changes as required by DfT TAG Unit M3.1
- ... within a full set of M3.1 data.

Ideas/Objectives:14/15

- Improved tree build algorithms for adjacent zones using Spider networks
- Bi-conjugate Frank-Wolfe
- Ignoring low-weighted iterations in .UFC
- Simulation links with bus lanes
- Filters/flares at roundabouts