SATURN User Group Meeting: Leeds December 3 2015

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BATTING ORDER

- 11.3 Releases in 2015
- Bugs in 11.3.12+ (App. E.9)
- Specific Program Upgrades (App. D21)
- Ideas and Objectives for 15/16

Releases of 11.3 in 2015

- 11.3.12 – Full release April 2015
- 11.3.13 …15 – Partial in-house versions morphing into …
- … 11.4.1?

11.3.12+ Bugs (E.9)

- SATALL - various crashes: 18 , 25 & 41

- SATALL – combination of flares and filters at signals: 24

- SATALL – delays at Q-nodes may exceed the maximum: 38

- SATUFO/SAVUFO – hangs in the middle of UFC to UFO conversion: 42 **(Recommendation – don't use SAVUFO)**

11.3.12+ Bugs (E.9)

- SATDB – fails reading centroid connector data from CSV files: 33

- P1X – errors editing signalised X-turns with unopposed final stages: 57

- APRESV – default is now 1.0

- **Beware using full print-outs of Namelist parameters from old versions**.

11.3.12+ Simulation "Bugs"

- Various bugs / corrections / improvements / new developments largely not listed in E.9.

SATNET (11.3.12+)

- Direct input of .RGS files to set signal settings – FILRGS

- FILBMP may now define a **folder** where .bmp files are located

- More data allocated to SPIDER networks – greater efficiency savings.

SATALL (11.3.12+)

- Corrections to V>C delays which exceed MAXQCT/2 (e.g., > 30 minutes) such that the assignment and simulation give the same delays. Significant convergence improvements.

- Overall improved convergence – mostly due to simulation improvements
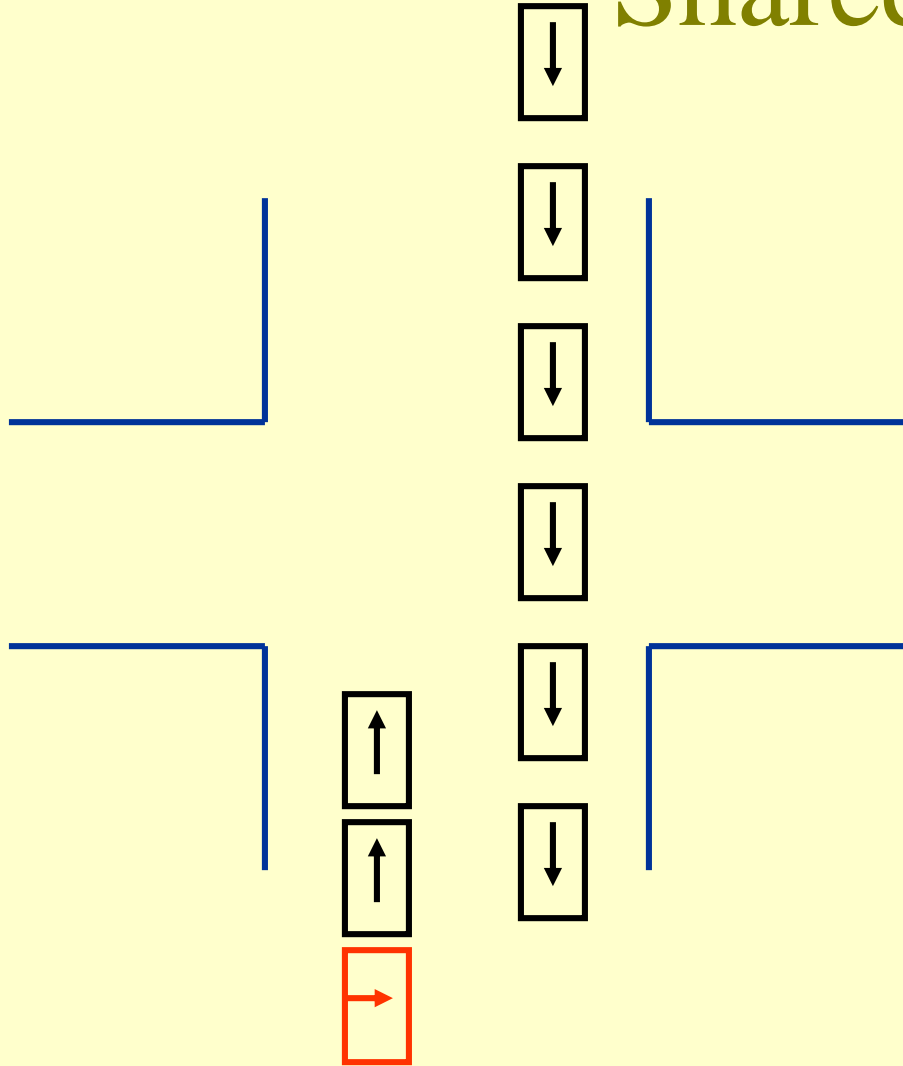
- 11.3.12+ give different results

Simulation (11.3.12+)

- Minor changes to lane choice

- Minor/major changes to flares, primarily to reduce the sensitivity when queues = flare lengths.

- (Minor?) changes to blocking back calculations to dampen down large shifts, particularly with large PASSQ flows.

Virtual Flows: Head of Queues

- The calculation of capacities and delays at signals where a blocked X-turn blocks an entire lane using "Head of Queue" logic may fail when both blocked and unblocked flows are very very small.

- "Virtual Flows" provide a method for breaking the vicious circle.

Shared Lanes

Number at the head of the

queue that go $: \dfrac{P}{1-P}$

P = proportion of ↑

SATUFO (11.3.12+)

- Further improvements to the calculation of .UFO files, including SATUFO and SATUFC and SAVUFO within SATALL.

- Avoids situations where the calculations can "hang".

- **(Recommendation – use SAUFO in preference to SAVUFO)**

P1X (11.3.12+)

- Option to exclude pre-loaded flows from demand/actual flows

- Multiple bandwidths follow curved links correctly

- Display of errors may use single user/vehicle class flows

SATCH (11.3.12+)

- Calculates and prints average times/distances for trips entering/leaving each cordon point outside the cordon

- Multiple "islands" of simulation nodes can be created within a "sea" of FCF nodes.

Ideas/Objectives:15/16

- 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/lanes/blocking back at roundabouts

- Flow-weighted UFP files for use with multiple time periods (SATTPX)

Requests to Atkins:15/16

- Forum replacement
- Interpret HEX messages in grey screens
- "Instant" corrected .exe's
- SATUFO recommended rather than SAVUFO
- Proper .GIS file formats
- Test modelling incidents (DEVTRIPS)