

Traffic Simulation

Progress of TRANSIMS

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<http://www-transims.tsasa.lanl.gov/new/TRANSIMS/>



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Traffic Simulation

Research Version (Pamina II)

Multilane CA

- Speed limit, number of lanes
- Exit behaviour at ramps

Intersections

- No capacity / no interference
- Simple phasing scheme
- No weaving behaviour

Routing

- Compressed node sequences
- Time of departure
- Estimated time of arrival

Traffic Simulation

Routing

Algorithms

- Likely Path (Heuristical)
- Dijkstra

Feedback

- On-line (during planning)
- Off-line (after iteration)

Best Results

Dijkstra with on-line feedback (30 minute bins), smoothed by time-shifting half of all plans by half the bin-size

Traffic Simulation

Questions

- Generation of route plans
- Stability of microsimulation with respect to artifacts of router
- CA behaviour on short street segments
- Fast complex intersections
- "Intelligent" data collection
- Parallel distribution of street network
- Optimized data flow between multi-stage parallel applications (e.g. router and microsimulation)