Progress of TRANSIMS

C. Barrett, K. Nagel, M. Marathe

R. Beckman, M. Rickert, TRANSIMS Team

email: mr@zpr.uni-koeln.de

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

ZPR Universität zu Köln
Zentrum für Paralleles Rechnen

Center for Parallel Computing
University of Cologne and
TSASA - Los Alamos National Lab

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

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

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)