Traffic simulation on HPC platform

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TRANSIMS

- Developed by Argonne National Laboratory
- Famous software in 2010
- NO update now
- Serial software code
- Agent-based simulation
Structure of TRANSIMS
created by manual, for analysis

- Node
- entry/exit point
- signal nodes
- Link

Alexandrian
Output data

- Delay, for feedback
- Table, including position and time
  - Can be converted to animation
RepastHPC

- Developed by Argonne National Laboratory
- Agent-based simulation platform
- We only need to design the model.
- No need for control sending/receiving message
Idea

- Each process control one area.
- Buffer area
- Each vehicle is an individual agent, move from left to right
• Just a prototype

• Output data will be a table, describe the position and time

• Visualisation