Update on MATSim-T

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January 2009
Structure

Software:

• Open-source project under GNU public licence

Coordination:

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• Kay Axhausen, ETH Zürich
• Fabrice Marchal, LET, Lyon
Current team

- Michael Balmer, ETH
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What does MATSim-T do?

“Scenario”

Competition for slots on networks and in facilities

\[ k(t,r,j)_{i,n} \]

Mental map

Activity scheduling

Population

\[ \beta_{i,t,r,j,k} \]

Demand \( q \) are the \( i^{th} \) movements of person \( p \) from the current location at time \( t \) on route (connection) \( r \) to location \( j \). The resulting generalised costs \( k \) are used to adjust the schedules and to change the capacities \( C \) and prices \( P \) of facilities \( f \).
MATSIM-T: Scale

- Scale: 7.5 mio agents, 1 mio facilities, 1 mio links and nodes
- Continuous time resolution;

- Shared time-of-day dependent generalised costs of travel and activity participation
- Best-response models for schedules and routes
- Choice models for mode and location

- Queuing for slots for movement (and activities)
Current configuration: Initial demand generation

- *Number and type of activities*
  - Sequence of activities
    - (Rough) start and duration of activity
    - Composition of the group undertaking the activity
    - Expenditure division
    - *Location of the activity*

- Connection between sequential locations
  - Location of access and egress from the mean of transport
  - *Vehicle/means of transport*
  - Route/service
  - Group travelling together
  - Expenditure division
Current configuration: (Iterative) activity scheduling

- Number and type of activities
- Sequence of activities
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  - Composition of the group undertaking the activity
  - Expenditure division
  - Location of the activity
- Connection between sequential locations
  - Location of access and egress from the mean of transport
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2009 configuration: (Iterative) activity scheduling

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April 21-23rd 2009 Tutorial
April 23-24th 2009 User meeting
www.matsim.org

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