



Impact analysis of a pedestrian detour

Project

Impact analysis of pedestrian detour at Zurich main station (Switzerland)

Organisation

ASE GmbH (Switzerland)

Sector

Urban planning, Public transport

Goals

Impact analysis concerning pedestrian densities and travel times

Topics

- Intemodal traffic
- Pedestrian detour

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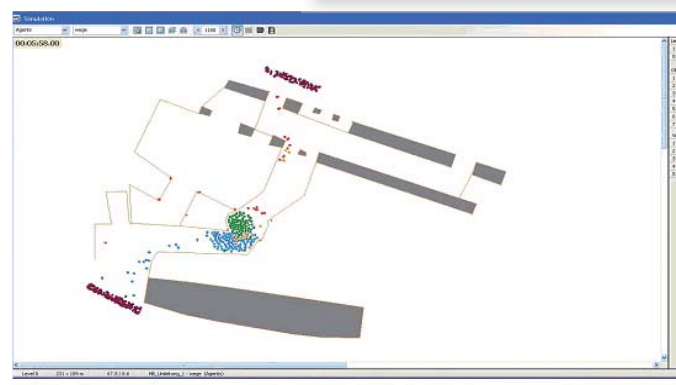
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At Zurich main station in Switzerland, a pedestrian crossing had to be relocated because of construction work for a new railway line. ASE (Analysis Simulation Engineering) GmbH, a swiss based simulation and engineering company, was assigned to conduct a feasibility study of the planned pedestrian detour. Signaling of the traffic lights had to be adjusted to the new detour in order to allow optimal coordination of motorized traffic and pedestrian flows. The following

questions had to be answered:

- How much will pedestrian density increase alongside the new detour?
- How much do travel times of pedestrians increase because of the detour?
- What impact on travel times, pedestrian density and motorized traffic is to be expected resulting from the signal frequency of traffic lights?

Based on several frequency measurements, ASE sampled key figures of pedestrian flows of today's situation. Firstly, a simulation model depicting this situation was built, and based on measurement data the model parameters were calibrated and analyzed for accuracy.



Secondly, a simulation model depicting the planned detour was built and the simulation results were analyzed for the feasibility study. It could be shown that the detour of the pedestrian crossing, leaving traffic lights frequencies as today, doesn't state any pro-

blem. Travel times of pedestrians are only minimally affected. If the frequency of the traffic lights has to be adjusted according to the shorter distance to the nearby „Landesmuseum“ crossing (40 seconds red light - 12 seconds green light), then the planned pedestrian crossing detour isn't realizable due to large pedestrian jams at the pedestrian crossing.