A Timetable Improvement Method Based on Delay Risk Estimation

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Urban mass transit railways have a problem that a trivial delay caused by passenger congestion is liable to propagate widely. For this matter, a delay propagation model of which explained variables are stoppage time and running time has been constructed according to a substantial investigation of the situation of urban transportation operation. Then, a delay propagation simulator that simulates railway transportation with probabilistic variability in the model and visualizes delay risks derived from the results of the simulation has been developed. This paper presents a method of delay risk estimation and a timetable improvement based on the simulation and shows an example of a case study result of timetable improvement.