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Modelling of Passengers Exchange between Trains and Platforms

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Abstract : The evaluation of the passenger exchange time is necessary for railway operators in order to optimize and dimension rail traffic. Several influential parameters are identified and studied. Each parameter leads to a modeling completed with the buildingEXODUS software. The objective is the modelling of passenger exchanges measured by passenger counting. Population size is dimensioned using passenger counting files which are a report of the train service and contain following useful informations: number of passengers who get on and leave the train, exchange time. These information are collected by sensors placed at the top of each train door. With passenger counting files it is possible to know how many people are engaged in the exchange and how long is the exchange, but it is not possible to know passenger flow of the door. All the information about observed exchanges are thus not available. For this reason and in order to minimize inaccuracies, only short exchanges (less than 30 seconds) with a maximum of people are performed.

Keywords : passengers exchange, numerical tools, rolling stock, platforms
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