

## Discrete-Event Activity Simulation for Predicting Occupants' Movements in Buildings

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### Abstract

The movement of occupants in buildings has mostly thus far been studied and analyzed by designers using intuitive and qualitative methods. This is usually sufficient for small to medium size buildings. However the movement of occupants in buildings becomes more critical as the buildings gets larger and the design gets more complex. This paper presents a new technique to model the occupants' movements in buildings using discrete event simulation. A simulation modeling language, STROBOSCOPE, is presented as a tool to study the movements of occupants in buildings. An example is presented and analyzed. This system and its graphical interface provide for an easy method to model occupants movements in buildings.