

EVACUATION

To determine the right evacuation strategies
Emergency risk management and security.

In order for people to be evacuated safely from any location, the “necessary and sufficient” conditions specified in the standards are applied to the designs. Thanks to this method, how many seconds a building can be evacuated in an emergency can be calculated analytically. However, due to the fact that the users of the structure do not recognize the structure, the design is complicated in terms of use or the standard analytical methods are insufficient in multi-storey buildings, the disadvantageous outputs of the experimental (drill) teaching in terms of time, cost and applicability reveal the importance of simulations for safe human evacuation and education.



Factors affecting evacuation time: user classification, walking speed, flow status, route selection, distance to exit, number of exits, door widths, user load... etc. According to these factors, the evacuation time may vary. For this reason, each parameter should be evaluated precisely and the dangers that may occur should be controlled.

What can we do for you?

We identify the worst scenarios with our stakeholders and take advantage of the standards and literature on the improvement of these scenarios. We provide realistic results with simulations that use a steering system for users to move and interact with other users, trying to mimic human behavior and movement as much as possible. We can also model large crowds using our advanced software and computer infrastructure. In our simulations, we can model disabled users and measure the accessibility of the building. With simulations, we can demonstrate whether the required dimensions are met, the adequacy of ramps and / or elevators. Users' evacuation routes and evacuation times can differ greatly in the first minutes of evacuation, which is considered critical for the success of evacuation. For this reason, it is one of our priorities to increase the awareness that will accelerate this critical process with realistic simulation results.

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Explores Innovations

While modeling crowds in evacuation analysis, we use behavior models that pay attention to human interaction instead of analytical methods.

Creates Opportunities

We use real-time simulation tools when creating the evacuation routes of a space.

We are with you in your user-oriented designs with more secure and risk management structures.

Meets Challenges

In new (or existing) buildings, we try to lighten and control the load on the doors, which are observed to be stacked.

In order to reduce the evacuation to the desired time, we identify critical regions and focus on these regions.

Fulfills Your Expectations

From the beginning of the design, we analyze each parameter and move you from potential hazards to the correct results.



We help you answer questions like the following:

- How long will the users in a place be evacuated?
- What are the critical areas for agglomeration in the building?
- What is the evacuation of people who use the neighborhood for the first time?
- Where and how long will the disabled user be evacuated?
- What solutions can be produced to reduce the evacuation to the desired time and prevent the accumulation?

How we work?

It is very important to design buildings when they are complex and considering users of open / closed public spaces. With our analysis and modeling tools, we model real-life crowds to quickly test complex designs.

We can present which space is evacuated for how long, where people accumulate (danger of crushing, serious injuries, etc.), and the rate of use of doors with numerical and visual expression techniques. In this way, you can diagnose the potential capacity, flow and congestion conditions of the place early and make better decisions.

Working from the perspective of the residents, we simulate the evacuation at the level of the person and evaluate the undesired situations. We can identify people in the critical area. Our goal is to avoid all situations that may pose a danger for people to be

evacuated in an emergency. In this way, we control many necessary conditions in terms of occupational health and safety.