



#### TECHNICAL KEY FEATURES

- Simulate up to 100,000 individuals
- Quick & easy modeling
- Applicable to every kind of infrastructure & venue
- Analyze an area up to two square kilometer
- Realistic crowd movements with unique agent properties
- Amazing 3D visualization
- Detailed output results
- Import drawing & models based on industry standards

What is the evacuation time of your ship? Do you have enough lifeboats? Where do you place facilities? Use simulation software to get the answers.

#### A GOOD FLOW OF SATISFIED AND SAFE PASSENGERS

During the design- and operational phase of large passenger ships -such as cruise ships, ocean liners and ferries - and passenger terminals, capacity and safety are important themes. Whether it's a ferry or a luxury cruise ships, the vessel must be designed to handle the required amount of passengers. The placement and quantity of facilities is important in order to have a good flow of satisfied passengers, even with a maximum occupancy of the ship. In addition, to make a proper planning it is important to gain insight into the time that is needed to leave or transfer of the ship.

Safety is one of the key themes when accommodating passengers. How much time do we need to evacuate the ship? How many lifeboats do we need and where? These questions are easy to answer using simulation software.



Determine passenger flows, gain insight in safety and capacity of your infrastructure and develop your (evacuation) plans.

### SIMULATION SOLUTIONS

With simulation software you can easily model the infrastructure of your ship and analyze pedestrian flows. During the design- and operational phase simulation software offers you the following benefits:

- Save money and time by evaluating the capacity and safety of the vessel during the design phase;
- Determine the number and location of necessary facilities: how many cash registers at the buffet, how many toilets, how many seats on the inside- and outside deck;
- Determine technical requirements for your vessel, based on their expected use or authority demands;
- Evaluate the capacity and safety of your current infrastructure and test alternatives;
- Present the design of the ship, including pedestrian flows in a 2D- and 3D-visualization to your stakeholders;

- Develop timetables and a proper planning for the boarding, debarking and transfer of passengers and their vehicles;
- Develop evacuation and contingency plans.

### COMPLEX LOGISTICS ISSUES

Simulating pedestrian flows has gained ground the last few years. An important reason is that safety of visitors has become one of the main issues on locations where large crowds exist. In addition simulation provides answers to complex, logistic issues related to capacity management and commercial use of facilities. Many different parties, such as ship designers, architects, authorities and emergency services are already using simulation software to support their mission. INCONTROL offers its own simulation platform Pedestrian Dynamics®.

### EXPERIENCE INCONTROL

The project experience and knowledge of the INCONTROL developers and engineers are used for the ongoing development of the software. Together with the knowledge network of INCONTROL, which will be used optimally at all times and made available for every customer, INCONTROL offers state-of-the-art simulation solutions. Examples of projects include: Study for pedestrian flows and capacity analysis regarding a new design for a ferry: What are the occupancy rates of toilets and catering? What are the waiting times and lead/processing times? How crowded will it be per square meter?

