SimWalk Airport.
Optimization of Passenger Operations.

SimWalk Airport is a specialized passenger simulation and analysis solution for airports that offers realistic modeling and evaluation of passenger operations.

Customer satisfaction, in accordance with cost and operational efficiency, is increasingly difficult to manage due to increasing passenger demand. Efficient check-ins, security check points, boarding procedures or baggage handling together with optimized flight schedules are often at risk under varying capacity and operational constraints.

Today, one of the bottlenecks of analysis for terminal and operational planners consists in realistically modeling and analyzing passenger operations, constrained by the terminal design.

**SimWalk Airport Benefits**

- Realistic simulation of all relevant airport passenger flows: arrival and departure, check-ins, boarding gates, baggage claims etc.
- Analysis of passenger bottlenecks, delays and high densities in airports
- Capacity evaluation and feasibility testing of airport connection devices (gates, escalators, stairs etc.)
- Whole product solution with complementary software, services and support
- Preconfigured airport objects library
- Adjustable processing time at service stations

In contrast to older, non-realistic simulation software, where passengers move like vehicles on tracks, SimWalk Airport allows to model passengers moving continuously and realistically in space.

In addition, SimWalk Airport allows to simulate evacuation scenarios in case of terrorist threats and other emergencies, as well as shopping areas and non-transport related behavior of passengers.

**Integration**

SimWalk Airport integrates complementary technologies and software for passenger data acquisition and analysis, as for example person counting data, passenger route choice analysis and CCTV data analysis and validation.
Airport Objects

As a comprehensive analysis tool for passenger dynamics in airports, SimWalk Airport allows to model all standard objects like check-ins, security and passport check points, baggage reclams, gates and moving walkways. Additionally, it allows to model a variety of other objects like airport shops, cafés or waiting areas.

Intermodal Processes

Based on its integrated product SimWalk Transport, SimWalk Airport allows to simulate intermodal dynamics of rail, metro or bus stations that bring passengers to the airport. Simulation of station dynamics includes import of timetables, train arrival and departure, boarding and alighting as well as changing of trains.

3D Visualization

SimWalk Airport provides visualization in 2D as well as 3D for the impressive rendering of simulation results. The SimWalk Airport 3D module combines simulation data, virtual worlds built with 3D software and virtual passengers to a comprehensive virtual airport model. This allows to understand and visualize terminal dynamics.

Features of Analysis

- Passenger density maps (congestions etc.)
- Passenger speeds and delay times
- Connection transfer times and delays
- Passenger counts & flow rates
- Layout analysis / space utilization
- Passenger trails and route choice
- Preconfigured Levels of Service (LOS)
- Self-defined areas of analysis
- Object capacities (escalators, stairs etc.)
- (Commercial) footfall analysis
- Queuing time and efficiency

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