



Passenger Simulation Software for Airport Process Optimization

Improving airport operations and planning of facility investments

SimWalk AIRPORT, a specialised passenger simulation and analysis solution for airports, offers realistic modeling and evaluation of passenger operations in terminals. SimWalk AIRPORT provides analysis of passenger capacities, operational layouts, congestions and queues as well as levels of service.

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

Today, one of the bottlenecks of analysis for terminal and operational planners consists in realistically modeling and analysing passenger operations, constrained by terminal layouts. In contrast to older, nonrealistic 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, evaluation of commercial airport areas as well as intermodal simulation in connection with railway stations.

SimWalk Airport Benefits

- Realistic simulation of all airport passenger capacity issues regarding arrival and departure flows, check-ins, boarding gates, baggage claims, security check points, passport check points and commercial areas
- Analysis of passenger bottlenecks, delays and high densities in airport facilities
- 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
- 2D and 3D visualization of simulation results

Business Issue

Increasing capacity demands together with cost reductions and operational complexity put efficient airport planning and operations of existing facilities at risk.

Impact

Inefficient passenger operations are causing delays and congestions at check-ins, boarding gates as well as passport and security check points. In addition, inaccurate analysis might cause unnecessary follow-up investments.

Solution

SimWalk AIRPORT provides a specialised and comprehensive passenger and airport terminal simulation solution to analyse and optimize all passenger related issues in airports.



Integration

SimWalk AIRPORT is a whole product solution for airport terminals, integrating complementary technologies and software for passenger data acquisition and analysis as for example:

- Person counting data integration
- Integration of passenger route choice and destination data
- CCTV video data and trajectory analysis for simulation validation



SIMWALK AIRPORT

Simulation of Intermodal Processes

Based on its complementary product SimWalk Transport, SimWalk AIRPORT allows to simulate intermodal dynamics of railway, metro or bus stations, bringing passengers to airports. Simulation of station dynamics includes import of timetables, train arrival and departure, boarding and alighting as well as changing of trains. Additionally, SimWalk Transport also allows to model shopping and non-transport behavior of passengers.



Simulation of Airport Objects

As a comprehensive analysis tool of passenger dynamics for airport terminals, SimWalk AIRPORT allows to model specific objects like check-ins, security and passport check points, baggage claims, gates and moving walk-ways. Additionally, it's possible to model other objects like airport shops, cafés or waiting areas.



3D Visualization

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



Download your SimWalk Trial

www.simwalk.com	(english website)
www.simwalk.com/fr	(french website)
www.simwalk.ch	(german website)
www.savannah-simulations.com	(company website)

Features of Analysis

- Passenger density maps (congestions etc.)
- Passenger speeds and delay times
- Connection transfer times and delays
- Passenger counts & flow rates
- Boarding / alighting analysis
- 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

System Requirements

- Compatible with Windows Vista, Windows 7
- Recommended hardware:
 - 1042 (MB) RAM + Pentium 4 CPUs at speeds of 2.0- 3.06 GHz
- Hard drive: 40 GB with a least 100 MB available space
- Super VGA / 1024 x 768 pixel
- Cable or DSL internet access
- Simulation performance depends on available processing capacity

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SPECIAL PTE OFFER !

Savannah Simulations AG offers with every software purchase of SimWalk AIRPORT free modeling and simulation of 1 airport scenario plus a free training seminar for software users. Your benefits:

- Assure your company an efficient initial deployment of pedestrian software technology!
- Get free training seminars for your staff to optimize software impact!