



# SimWalk Transport. Passenger Flow and Station Optimization.

SimWalk Transport is the leading simulation software to secure an efficient and safe transit of passengers through transport stations by analyzing and improving the design and operations on all levels. The evaluation of bottlenecks, the optimal boarding and alighting as well as accurate dwell times and optimized timetables are the strengths of this specialized solution.

Railway, metro and bus terminals are increasingly subject to capacity problems due to increasing passenger demand. Efficient connections and transfer times, rolling stock dwell times as well as optimized timetables are at risk under passenger capacity constraints.

Today, the bottleneck of analysis for transport planners consists in the high complexity of passen-

## SimWalk Transport

Simulation of rolling stock, integration and testing of timetables, analysis of boarding and alighting dynamics, detection of facility bottlenecks, analysis of transfer times, levels of service and high densities are just a selection of key deliverables that SimWalk Transport offers to enhance transit station efficiency.

ger flows, traveling under varying restrictions like arrival/departure times, delays, destinations or facilities. SimWalk Transport offers comprehensive guidance for planners to master passenger flows. SimWalk Transport is a tool designed by and for transport planners.

Additionally, specialized modules are available for evacuation as well as for intermodal car traffic simulation (RTS) that complement the SimWalk Transport offering. The data integration with OpenTrack, the leading railway network simulation software, extends SimWalk capabilities to determining the requirements of a railway network's infrastructure, analyzing the capacity of lines and stations, rolling stock studies (for example, future requirements), running time calculation, timetable construction or analyzing the robustness of timetables.

## SimWalk Transport Benefits

- Simulation and analysis of passenger capacity issues regarding dwell times, platform capacities, boarding and alighting and timetable optimization.
- Analysis of passenger bottlenecks, delays and high densities in transport facilities.
- Capacity evaluation and feasibility testing of transport connection devices (escalators, stairs etc.).
- Whole product solution with complementary software, services and support.
- Preconfigured rolling stock library.
- Fully automatic integration of timetable data.
- 2D and 3D visualization of simulation results.



## Intermodal Station Simulation

The optional module Road Traffic Simulator (RTS) allows to conduct intermodal station simulations, integrating car traffic into the analysis of station dynamics. The simulation of pedestrian crossings, bus stops and smaller urban areas with RTS provides comprehensive evaluation of the station environment and its dynamics.

## OpenTrack Integration

SimWalk Transport provides data integration with OpenTrack, the railway network simulation software. This integration allows to explore in depth the major operational interface between passenger flows, the rolling stock dwell time, the boarding and alighting dynamics as well as platform capacities in general.

[www.opentrack.ch](http://www.opentrack.ch)

## 3D Visualization

SimWalk Airport provides visualization in 2D as well as 3D for the impressive redering 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.

## Download SimWalk DEMO

[www.simwalk.com/download.php](http://www.simwalk.com/download.php)

## 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
- > Station analysis / platform space utilization
- > Passenger trails and route choice
- > Preconfigured Levels of Service (LOS)
- > Self-defined areas of analysis
- > Object capacities (escalators, stairs etc.)
- > Queuing time and efficiency

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