How do 250,000 people safely pass through Amsterdam Central Station each day?

Rely on PTV Viswalk to simulate various pedestrian dynamics.
PTV Viswalk at a glance:

- Replicate and analyse the human walking behaviour realistically.
- Plan pedestrian safety and evacuation measures.
- Assess crowd capacity in buildings or public spaces.

There are too many factors that can impact the crowd flow, but with PTV Viswalk, you can run multiple scenarios and choose the best solution before real-world implementation.

“As PTV Viswalk combines both visualization and statistics, users can easily understand what is happening in the model.”

Willem Mak
Senior Traffic Engineer, VIALIS
About Amsterdam Central Station

Today, more than 80 trains operate during the two morning peak hours resulting in 46,500 people arriving, leaving and passing through the station. With a total of 250,000 visitors per day, the morning peak hour comprises 20% of the daily total. VIALIS, the specialist in traffic solutions in the Netherlands, has advised ProRail to assess the pedestrian routes efficiently using PTV Viswalk.

How other customers use PTV Viswalk:

ETH Zürich

The Swiss Federal Institute of Technology Zurich (ETH) deployed PTV Viswalk to determine the effects of pedestrian flows in the complete redesign of Lausanne main station. The result shows that additional pedestrian measures such as adding rounded corners and removing all types of obstacles from the hallways and underpasses to maintain safety levels for all.
PTV Viswalk is a reliable planning tool for simulating various pedestrian and crowd dynamics.

Areas of application

Crowd capacity assessment
As city planners or event organisers, you should establish as an early priority that you can manage a crowd safely for any type of scenario. Even if it takes place in open spaces, a strict crowd management principle should be applied to make it as safe as possible. PTV Viswalk can identify any key hazards that affect crowd and pedestrian safety so you can create a comprehensive crowd management plan.

Evacuation and safety analysis
Crowd safety is of paramount concern, especially in public places. PTV Viswalk assists you in taking numerous structural and organisational measures aimed to reduce and control the unmanageable behaviour of people in emergency situations. By testing different scenarios in PTV Viswalk, the software can tell you precisely if the infrastructure is safe for people or not.

Crowd simulation
Simulate the human walking behaviour realistically to prepare your new infrastructure for the future. Whether you are building a new facility within an existing building, an airport, a stadium, a shopping mall, or even a temporary venue for events and festivals, PTV Viswalk can represent crowd in a simulation to the finest detail.

Daily operation management
Manage the day to day operations in high traffic locations such as railway stations or airports. PTV Viswalk supports the management by using state-of-the-art data analysis and planning of crowd dynamics. Simulate everything from the normal operation of a station yet to be built, or even simulate scenarios far beyond normal demand operations.
Benefits

Save time and money
Avoid unnecessary costs that might occur during operations by optimising the pedestrian and crowd flows during the design phase.

Prepare for the unexpected
The simulation in PTV Viswalk enables you to predict the crowd flows and expect any significant flaws.

No more “what-ifs”
With PTV Viswalk, you have all the answers you need with its accurate representation of crowd and pedestrian behavior.

Convince all stakeholders
Effectively communicate with all stakeholders in the decision-making process with easy-to-understand and realistic visual output.

Comply with strict regulation
PTV Viswalk evaluates and address regulatory compliance with local and international safety rules.

About PTV Group

PTV Group takes a holistic approach that integrates all aspects of traffic, transport and logistics to create and promote sustainable mobility. Recognized as global market leader, PTV develops intelligent software solutions for transport logistics, traffic planning and traffic management.

Thus cities, companies and people save time and money, enhance road safety and minimize the impact on the environment. Based on its unique expertise in every facet of mobility, PTV ensures that people and goods arrive at their destinations safe and sound, and on time.

More than 2,500 cities make smart decisions based on our software
Up to 17% cost savings with our route optimisation technology
Customers in 120 countries rely on our solutions
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