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netwiss

Optimise Passenger Vehicles and Increase Efficiency with Just a Few Clicks!

I n the case of passenger trains, the aim is often to maximise the number of seats.

It is expected that this will improve profitability as more people can be transported. In reality, however, maximising the number of seats always leads to a reduction in efficiency, as in rail transport in particular this means that baggage stowage is greatly undersized and is not designed to meet the needs of travellers. In addition, the necessary movement space for passengers is greatly restricted in all vehicle types.

The Problem

The majority of travellers do not want to or cannot lift their baggage and want to have visual contact with it at all times. In the case of inadequately designed baggage stowage, this means that baggage is often stowed on or in front of seats or in the aisle. Furthermore, the baggage volume in the design of vehicles is often strongly underestimated. The consequences are blocked seats and aisle areas and thus a lower possible seat occupancy rate, higher safety risk, significantly longer dwell time, reduced punctuality, higher energy

Step 1: With the help of predefined elements and aids such as snapping, **layouts of a vehicle can be created** in a short time without CAD knowledge, whereby all elements can be configured three-dimensionally easily and precisely.

Step 2: You select the layouts that you want to **compare with each other and define the travel purposes** for which the simulation is to run. Optionally, numerous further setting possibilities are available.

Step 3: TrainOptimizer® generates **easy-to-understand charts** based on behavioural data from over 400,000 passengers. Using the data you can read out the **values for stowage of baggage, actual seat availability** and **achievable dwell time** as well as **compare layouts** with each other.
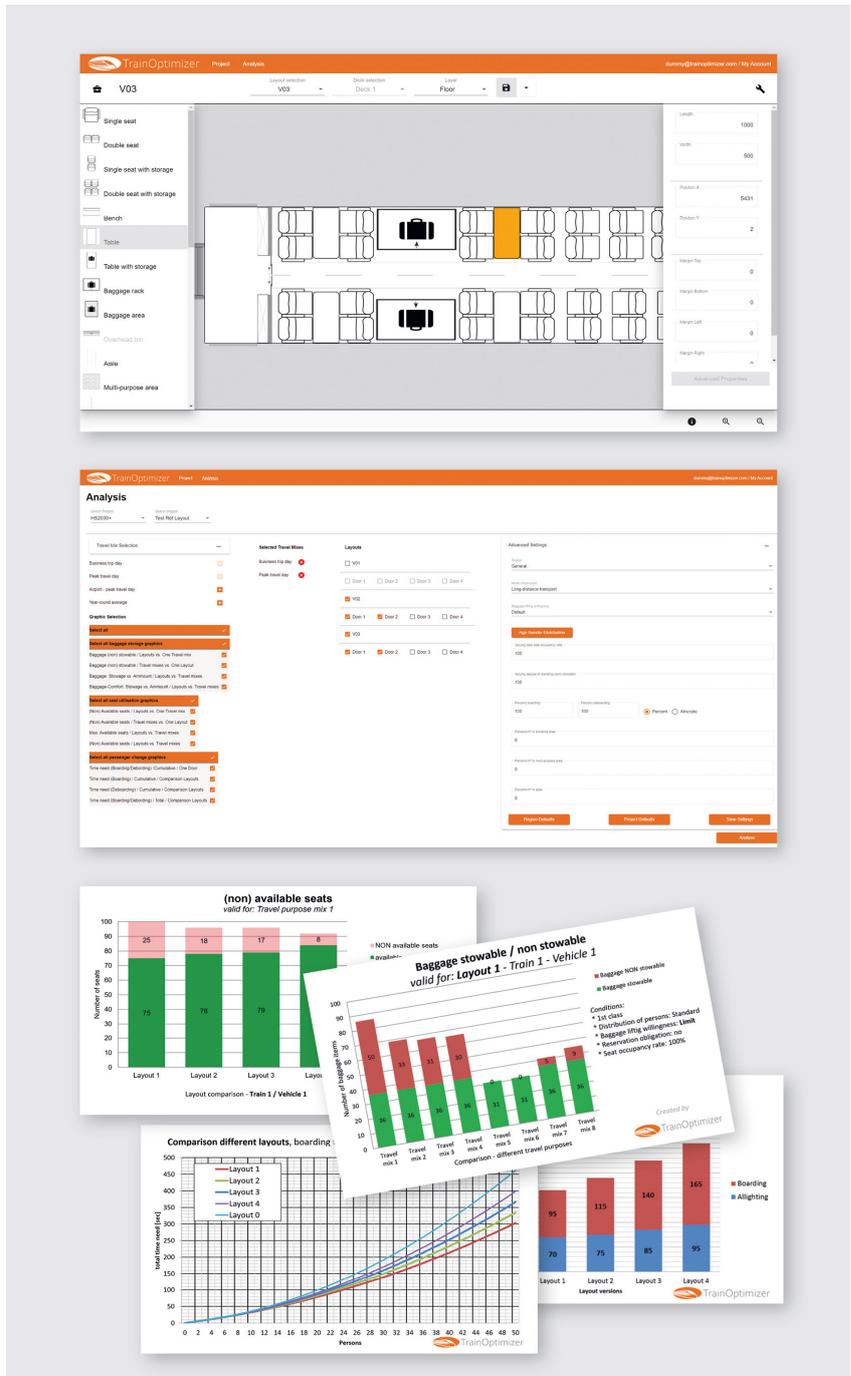
consumption and greatly reduced passenger comfort with increasing dissatisfaction. All this leads to a significant reduction in efficiency!

Optimisation Opportunities

TrainOptimizer® is a brand-new software tool with which you can check the efficiency of any vehicle-interior design with just a few clicks. You can compare any variants of a wagon or train and get a clear picture of how long the average dwell time will be, how many pieces of baggage cannot be stowed properly and how high the proportion of unusable seats is or the actual achievable capacity degree.

A variety of special queries are possible with the aim of determining the most efficient layout. TrainOptimizer® is an online tool with the big advantage that time-consuming installations and updates are no longer necessary, and you can access all functionalities from any computer.

With TrainOptimizer® you can optimise any public transport vehicle. The spectrum ranges from high-speed trains to intercity trains, night trains, local trains and suburban trains. TrainOptimizer® can also be used for undergrounds, trams and even buses.
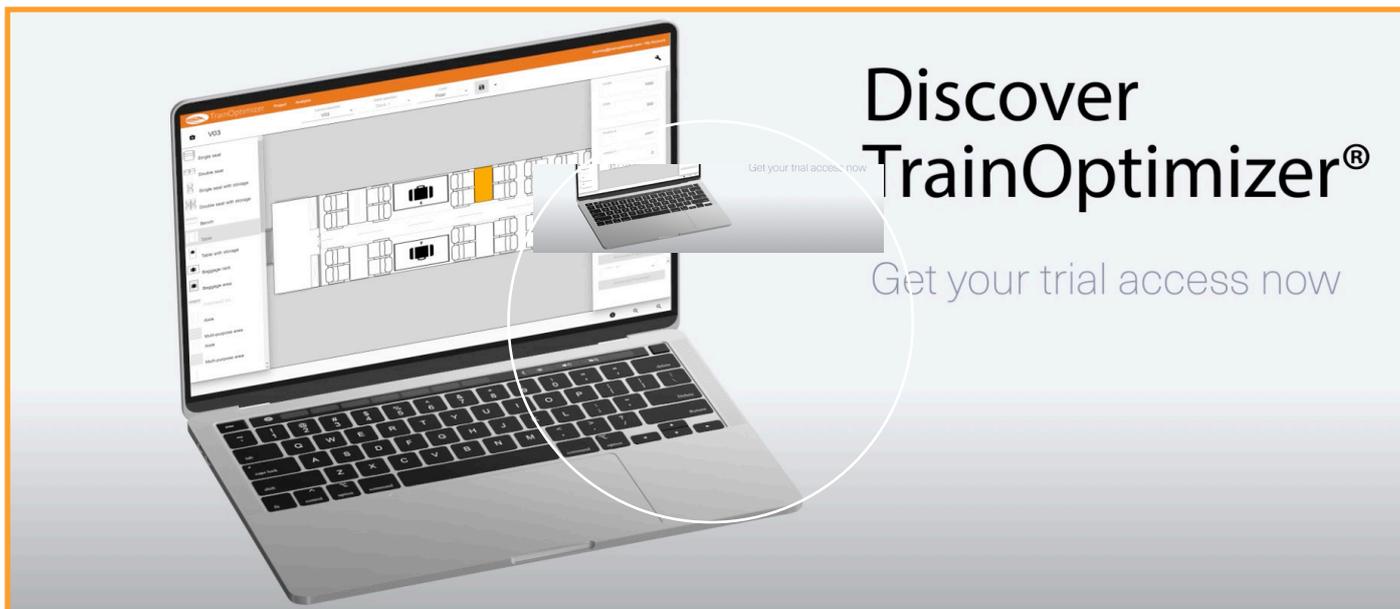
Database

TrainOptimizer® is a tool that has emerged from over two decades of intensive research into passenger behaviour and needs. This research has been and will continue to be carried out by netwiss together with the Research Centre for Railway Engineering of the Vienna University of Technology. The tool is based on the following data:

Passenger behaviour of over 400,000 passengers in over 100 different vehicle types in different European countries. The behavioural analyses include both passenger movement and seat selection in local and long-distance trains, behaviour with regard to baggage transport and stowing and behaviour during boarding and deboarding. Supplementary surveys of approximately 50,000 travellers in over ten European countries have provided precise knowledge on the type and extent of baggage transport, on problems with boarding and passenger movement as well as with stowing baggage in the train and the concrete needs and readiness of travellers in

connection with baggage transport. In addition, there is exact data on baggage sizes and weight in rail and intermodal transport for many thousands of pieces of baggage.

Unique

The special database shown above makes TrainOptimizer® a unique optimisation tool for rail vehicles because it accurately maps the entire spectrum of passenger behaviour and baggage volume. The combination of all the data allows statements to be made on the efficiency of the vehicles and on the exact optimisation potential at the highest level.

TrainOptimizer® is a joint product of the netwiss and IT-eXperience companies and the Research Centre for Railway Engineering of the

Vienna University of Technology and is distributed by the netwiss company. The entire team of all three partners has proven expertise in the field of railway engineering, which makes the tool a unique product.

For detailed information contact us:

Bernhard Rüger
+43 1 923 50 82

info@trainoptimizer.com

www.trainoptimizer.com

netwiss