

Trapeze Rail System



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Enabling future railway, tram and metro transport

The worldwide growth in demand for travel and increasing competition between all modes of transport places ever greater demands on rail passenger transport. To meet this challenge, rail passenger businesses must increasingly strive to make better use of their existing and planned resources. Trapeze Rail System assist in achieving these objectives. By drawing on experience, tried and trusted solutions are combined with innovation to meet specific requirements.



Trapeze Group – your long-term partner

With a solid financial foundation Trapeze Group has experienced a positive growth trend over the past decade. Trapeze's in-depth industry experience, ongoing investments in product innovation and solid financial foundation demonstrate the company's ongoing commitment to support your organisation for the long-term.

Experience matters

Our team of experienced technology professionals, operational management and support consultants are ready to help design solutions that meet your needs, manage your projects, deliver your systems, and provide your organisation with the training and long term support you require.

A complete solution

Trapeze Rail System is a complete IT tool for rail passenger and rail cargo transport that streamlines and optimises network and timetable planning, roster and resource planning, resource allocation and the day-to-day operations. Combined with Trapeze passenger information, journey planning, ticketing and real time monitoring Trapeze Rail System covers all needs for IT and ITCS in any rail operation. Trapeze Rail System is scalable, from the small rail or light rail operation up to national and international operations, our solution can be modelled to meet the demands Our system ensures that resources are used efficiently, and that management and planners have an excellent overview of the daily work. This results in cost-efficient solutions for all aspects of your operation.

FUNCTIONS - OVERVIEW

SIMULATION & **MODELLING**



- Simulate operations (rolling
- stock, signalling systems, energy) Running time calculation
- Identification of conflicts
- Validation of timetables
- Data for cost-benefit calculations

Power Supply Network

- Simulate power supply demands, electrical
- outages and emergency scenarios Assessment of substation locations
- Assessment of supply robustness
- Simulate AC, DC networks &

- Robustness analyser
- Networks capacity optimisation
- Timetable stability
- What-if scenarios

NETWORK & TIMETABLE





Network Planning

- Negotiate track access
- Identify available tracks
- Possession request management

- Stations, stops and connections Unlimited what-if timetables
- Running times
- Conflict detection & validation
- Route planning
- Possession planning

RESOURCE PLANNING



- Interative feedback between vehicle planning and crew planning
- Auto validation
- Capacity and blocking
- Fuel and maintenance
- Vehicle optimisation

- Interactive feedback between vehicle planning and crew planning
- What-if scenarios and cost calculations
- Employee qualifications

- Rosterina
- Manually and automatic
- Employee assignment
- Roll-out
- Optimisation

OPERATIONS

Vehicle Management

- Vehicle allocation
- · Dispatch, incident and change management
- Rolling stock register
- Validation & statistics
- On-board system

Crew Management

- Dispatch, incident and change management
- Validation and operational warnings
- Operations optimisation
- Employee communication

- Administration of vehicle maintenance
- Fuel management
- Asset configuration
- and procurement

- Planning of ad hoc and fixed route transport
- Customer and contact
- administration Vehicle roster

ADMINISTRATION STATISTICS & ANALYSIS



Wage Calculation

- · Automatic calculation of payroll
- Rules and in-house agreements

- · Contract management
- Booking and order management

- Production calculation
- Operational statistics
- Cost and revenue statistics Dashboards

· Real time tracking of fleet,

inventory, equipment

Maintenance log and scheduling

Consist building and marshalling

Auto logging of consist make up

- · Software and computers
 - Voice & data communication
 - High-speed internet connection Integration to peripheral devices
 - Data logging and data management

REAL TIME



PASSENGER INFO

JOURNEY PLANNING

- Voice and message control Automatic vehicle location
- Schedule adherence Incident reporting

Driver training

Driver monitoring

In-Vehicle & Wayside

- Arrival / departure / delays
- Next stop and connections
- Voice announcements Automatic passenger counts

Front and back-end solution

Web, app, call centres

- Mobile ticketing
- Smart Cards / ComfoAccess®
- Stationary and mobile vending machines
- Ticket printers
- Fare collection





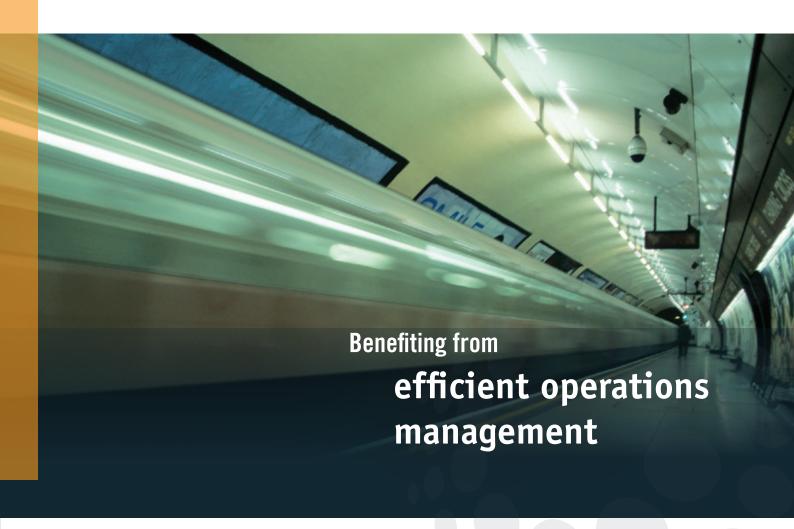


Solutions designed

Delivery of an operational railway timetable involves the coordination of three key components: infrastructure, rolling stock and staff. These all have very different requirements and constraints. Trapeze Rail System ensures all this is taken into account.

Trapeze Rail System includes a simulation and planning tools that help planners develop effective operational plans that satisfy key business requirements for efficiency and stability. Our simulation tool enables planners to predict the behaviour of rolling stock, signalling systems and power supply networks and combine this information in numerous timetable scenarios and cost benefit calculations. For simulating power supply our solution includes a strong tool that simulate and analyse power supply, as well as electrical outage and emergency scenario.

The result is strong, optimized, conflict free and operational plans.



for your operations

Inefficient use of resources cost passenger and freight operations large amount of money. In an increasingly competitive industry managers need to know that their operational support systems assist them in optimising and using vehicle and crew resources in the most efficient and cost effective manner.

Trapeze Rail System has tools to assist in vehicle and crew allocation and in handling the daily operations. Our solution is designed to create optimised, efficient and effective schedules, to provide overview of the current situation, and quickly and efficient to manage any changes in the daily operation.



Reliable and readily available passenger information, easy journey planning and ticket purchase is essential to attract passengers and raise ridership. Trapeze offers comprehensive solutions for passenger information on in-vehicle and on-street displays, web portals, apps and journey planning solutions to meet the requirements from the business. Our ticketing solutions includes tickets purchase from stationary and mobile units, and various travel card solutions. Everything developed to meet passengers' demands for accessibility and operators' demands for efficiency and growth.

Understand and develop your business

IT generates a huge amount of data. Used in the right way this data can be used to streamline, shape and optimise your business. We offer a business intelligence tool that allow everyone within your organisation to easily access, analyse and distribute operational data.

Our rail solutions help organisations in:

- People transport rail, light rail, metro, streetcar
- Government and local authorities
- Rail cargo transport







Business Intelligence It's all about data

Trapeze business information tool retrieves data across the individual Trapeze applications and transforms that data into business and management information for Management, Controllers and Business Units within the organisation.

Business Info provides managers with a number of Key Performance Indicators giving for instance a monthly overview of:

- Status of operational performance at different levels
- Comparison of performance of the individual units in the organisation
- Development in the performance of the individual units in the organisation

Our consultants can assist you!

Our consultants are specialised in analysing data and in operational planning for the rail industry. Our teams combine a mixture of analytical, systems and practical planning skills. We combine current know-how with comprehensive practical experience in the field of planning and simulation. This delivers competitive advantage to our customers, as it allows each system to precisely match specific operating requirements.

Ask us how we can help you understand and develop your business.



Trapeze Group delivers solutions that consider the full 360 degrees of passenger transport. Hundreds of government and commercial organizations across Europe, North America and Asia Pacific have turned to Trapeze to realize efficiencies, enhance the quality and scope of their services, and safely transport more people with less cost.

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