# RailSys

### RailSys® application for energy-saving driving

As an environmentally friendly mode of transportation, rail transport is superior to other modes in terms of sustainability. However, there are still opportunities to further save energy in rail operations.

The goal is to minimize the energy consumption of a train journey without increasing running times compared to conventional travel time calculations. The energy-saving driving (ESD) strategy, calculated by algorithms, must be feasible in real operations to effectively reduce actual energy consumption.

RailSys® calculates the ESD between two stations, ensuring that running time is not extended while energy consumption is reduced. The ESD algorithm determines the optimal combination of rapid acceleration, running at the maximum allowable speed, early engine shutdown, and prolonged coasting, all while considering the route's characteristics to achieve minimal energy consumption with on-time arrival.



Route

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With identical running times, energy consumption is reduced by optimizing the speed profiles through the energy-saving driving strategy. The ESD calculated by RailSys® is efficient, feasible, and energy-saving.

The recommended energy-saving speed is displayed in both the printed timetable and the electronic timetable, allowing the train driver to implement it without causing delays. The energy savings achieved through the energy-saving driving strategy are compared to conventional driving, making the potential savings in electricity and diesel fuel transparent.

#### Become part of the **RailSys® user family** and benefit from **over 25 years of software development.**

RailSys<sup>®</sup> is continuously developed by transportation specialists and IT professionals, and it is adapted to current and future railway markets as well as to German and European law. RailSys<sup>®</sup> is used by both small and large companies worldwide to tackle various challenges. Feel free to contact us directly or through our website for a non-binding demonstration of the possibilities we can offer you with RailSys<sup>®</sup>.

## The RailSys® Software Suite includes, i.a.:

#### Infrastructure Manager



All infrastructure data is precisely mapped within the Infrastructure Manager and can be utilized in various ways.

#### **Facility Booking Manager**



Booking, precise management, and subsequent billing of facility usage, such as sidings and other service facilities, are easily

and conveniently handled through the Fa- nager. cility Booking Manager.

#### **Timetable Manager**



Building on the infrastructure, the timetable is constructed within the Timetable Manager. Special operational scenarios,

such as manual train dispatching, can also be represented.

#### **Accounting Manager**



Services provided to railway undertakings through the use of tracks and facilities are invoiced via the Accounting Ma-

#### **Train Path Manager**



Direct communication between train path applicants and network operators is facilitated by the RailSys® Web Train Path

Manager. It also serves as an information platform.

#### **Construction Manager**



In conjunction with the Infrastructure Manager, construction sites can be simulated in advance. This allows for the pre-as-

sessment of their impact on timetables and capacities.

