



Resource Management Solution - Rail Fleet

Competition, demand and increased profitability

These three factors are key characteristics of the rail operator's environment. How do I move more freight or people at a competitive price whilst maintaining or increasing profit margins and service levels?

Investments in new rolling stock will solve part of the problem, moving more, but could significantly increase costs and decrease profitability. If utilization of existing rolling stock can be optimized, a railway can move more for the same or less cost, resulting in increased competitiveness and profitability.

In many markets, where rail companies compete for the rights to operate franchises, success is dependent on being able to place a winning bid that still allows the operation to be run with the profit margins desired. Cost calculations for rail equipment required to service the franchise need to be done with a high degree of certainty, to reduce business risk.

The need for high-performance fleet management

A fleet management solution that supports these business demands must be able to quickly and correctly assess the minimum amount of equipment required (locomotives, motorized units, and rail cars) to meet service demands, obey infrastructure constraints and allow for maintenance and fuelling.

Optimization strength, the ability to perform rapid and frequent simulations, tools that allow quick, flexible, and accurate modelling of different business and operational situations, plus advanced reporting capabilities for comparison of scenarios, are all factors that will determine the effectiveness of the chosen solution.

Modules of Resource Management Solution - Rail Fleet

| | Long-Term Planning | Mid & Short-Term Planning | Manage Operations | Administration |
|-------------------------------------|----------------------------------|---------------------------|-------------------|----------------|
| User Tools Reporting & Modelling | RAVE (General Modeling Language) | | | |
| | Rail Central and Data Warehouse | | | |
| Service Design & Timetable planning | Infrastructure editor | | | |
| | Timetable editor | | | |
| Equipment & Maintenance Management | Train Consists | | Unit Rotations | RMS - R Fleet |
| | | | Depot Solver | |
| Crew Management | Shifts | | RMS - R Crew | |
| | Rosters | | Crew Operations | Admin |
| | Crew Portal | | | |

Figure 1: Resource Management Solution - Rail Fleet (Fleet modules highlighted in yellow)

RMS - R: the complete rail fleet management solution

Jeppesen’s Resource Management Solution for Rail Fleet produces optimal train consists, unit rotations and depot/siding plans. This capability makes it possible for rail operators to use their locomotives, motorized units, passenger cars, wagons and depot resources in the most efficient way, calculating the amount of equipment needed to maintain the prescribed levels of service whilst obeying operational constraints. RMS - Rail Fleet covers all aspects of fleet operations from long-term planning to Day-of-Operation.

- cyclic and dated planning
- support for splits and merges of train units, plus through-coach requirements
- powerful, rapid modeling of constraints via Jeppesen’s rule system, RAVE
- a rich set of reports containing key performance indicators derived from the input and resulting plans.

RMS - Rail Fleet provides:

- globally optimized equipment plans
 - train consists for each service
 - shunting orders required
 - equipment rotations
 - fuelling, maintenance, other activity

RMS - Rail Fleet delivers:

- increased utilization of rolling stock assets
- improved schedule robustness without an increase in rolling stock
- increased operational flexibility
- decreased maintenance costs
- decreased planning time
- better business decisions through what-if scenario planning.

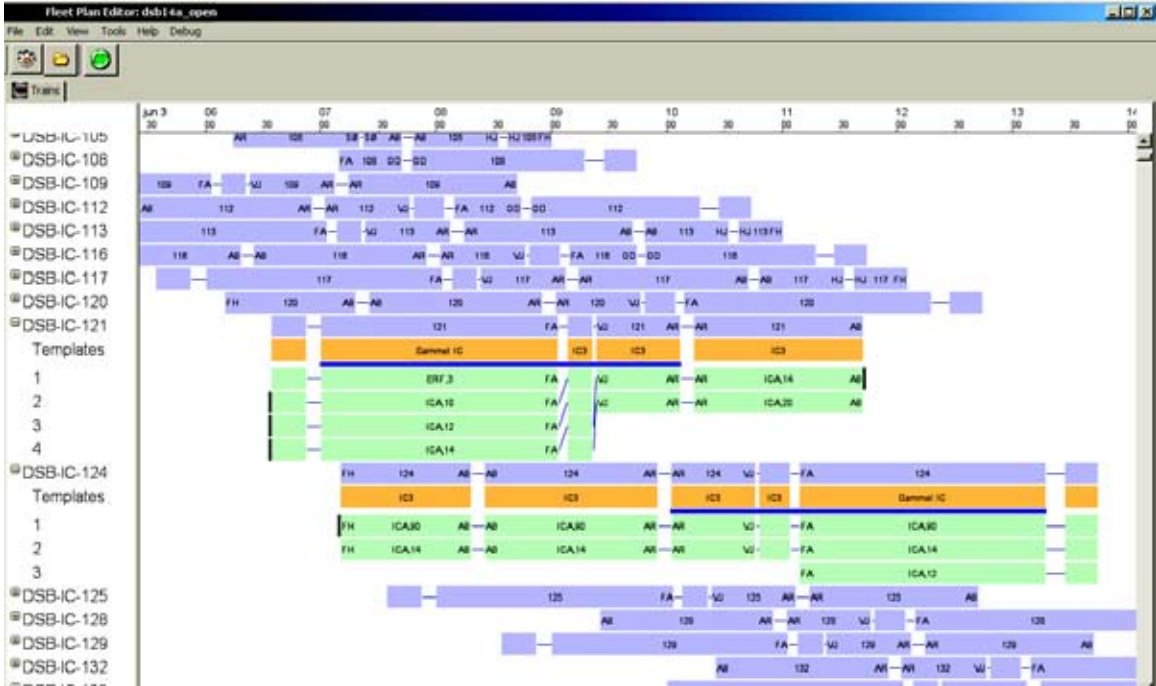


Figure 2: RMS - Rail Fleet Plan Editor

USA
 55 Inverness Drive East
 Englewood, CO
 80112-5498 USA
 Tel: +1 303 799-9090

Australia
 54 Jephson Street
 Toowong, QLD 4066
 Australia
 Tel: +61 7 3105 9400

1721 Malvern Road
 Glen Iris, VIC 3146
 Australia
 Tel: +61 3 9811 8600

Sweden
 Odinsgatan 9
 411 03 Göteborg
 Sweden
 Tel: +46 31 720 8100

UK
 Suite 211 Siena Court
 The Broadway
 Maidenhead SL6 1NJ
 United Kingdom
 Tel: +44 1628 509030

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