



*Working on site with unlimited software support.*

**ZEDAS GmbH**

# Modern process management in rail freight services

Vigorous competition, high security requirements and rising customer expectations characterise rail freight services. Modern process management is in demand, now more than ever. The efficient planning, processing and documentation of international rail transport requires holistic, integrated IT support.

in-house and third party services, among other things, are managed in the contracts.

The personnel, locomotives and marked-out routes are planned within the context of resource management. Clear Gantt diagrams

The standard logistics software, named zedas<sup>®</sup> cargo from ZEDAS GmbH, was specially designed to handle a railway undertaking's (RU) requirements. The solution combines all of the operational and business processes in the value chain and leads to significantly better working practices as well as quick access to relevant and up-to-date information. The solution assists the company with the calculations for rail transport and allows for detailed final costing once the service has been provided.

Contract management shows both regular rail traffic and short term spot business. Alongside the calculation data, the agreed production flow chart (days of running, times), the delivered quantities and the conditions for



*Step by step throughout the value chain.*

support the planning process. Timetable data is automatically imported via interfaces with infrastructure providers. The various planning levels are derived from one another and allow for gradual refinement beginning with studies of the annual and weekly planning, all the way down to daily scheduling. The user detects conflicts, free capacities and open services for the best possible utilisation and a cost-efficient, competitive overall operation.

Personnel planning allows for the organisation of optimal staffing/services and checks compliance with international working time regulations, collective agreements and qualifications such as routes or class licenses.

Locomotive circulation planning takes maintenance periods and leases into account. Location conflicts and suitability criteria for locomotives (class, train control system, licenses) are checked automatically.

### **Train composition and document generation**

During the course of train preparation, the software supports train composition as well as the generation of the necessary documentation. Up-to-date data regarding the job and resource situation is available for scheduling for the optimal processing and documentation of ongoing operations. The dispatcher can flexibly allow for short-term services, changes to jobs or cancellations. Conflicts and rule violations are visualised and allow for prompt and targeted intervention. In the event of delays or operational events, the dispatcher has support in both solving the problem and documenting the event.

All services rendered are recorded in the appropriate job. National and international train movements can be followed in real time through the available interfaces with the

network infrastructure operators. In addition, up-to-date job, train and status reports are automatically sent to transport partners and customers.

The conditions and account assignments recorded in the contracts form the basis for billing and cost accounting. All services covered during operation are allocated to the jobs and automatically passed on for billing. Billing, including cancellations and credit entries, occurs after approval. Electronic data exchange with ERP systems is also possible. Time and payroll accounts can be kept for payroll accounting. Prepared accounting data can be delivered via interfaces with the HR systems.

With the software solution, rail companies have a wide range of options for calling up assessments and statistics. Reports can be generated, time-controlled, and distributed automatically. The customer can call up and edit selected data independently through a data warehouse.

### **Immediately after provision of services**

All information for controlling, target/actual comparisons, final costings, statistics and operating figures are available immediately after the provision of services. Evaluation of the profitability of the transport services is thus possible at any time. Cost drivers can be identified and opportunities for improvement can be recognised.

Mobile applications are an integral part of the solution and make it possible to reorganise business processes and design them more efficiently. Employees can call up and directly edit information anywhere. Typical applications are calling up information about duty rosters, the documentation of services rendered and duty periods as well as the management of damaged rolling stock, among other things.

The mobile solution is platform-independent and thus allows for the use of tablets and smartphones running Apple iOS, Google Android or Microsoft Windows. The design and operation of the software has been optimised for mobile use and ensures a high level of user-friendliness. The integrated offline functionality of the software allows for working even without a continuous data connection.

### **Further development of the software**

ZEDAS GmbH is constantly continuing to develop the standard software with a transparent roadmap. In the context of European standardisation in accordance with TSI TAF, zedas<sup>®</sup> cargo has already been offering a standard interface for the transmission of train running data (RNE RIS) based on the TSI TAF common interface since 2012. This process is being pursued consistently with the soon to be available interface with the RSRD<sup>2</sup> (data exchange between lessees & holders of freight wagons) system. ZEDAS follows further developments very closely and incrementally implements the process and IT system requirements resulting from them together with its customers. The integration of tools for rule-based and automatic planning support as well as making use of the potential of data analysis (big data) are other key themes which ZEDAS GmbH focuses on.

In conclusion, here is a list of the most significant benefits of zedas<sup>®</sup> cargo:

- integrated and coordinated processes,
- efficient planning, controlling and billing,
- seamless collaboration with customers and transport partners,
- accurate evidence for the authorities,
- outstanding management information.

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