

**RailOpt** <sup>®</sup> **People** - Integrated resource  
planning for shift operation

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**RailOpt® People is the planning and production system for the deployment planning of shift personnel. It enables you to manage and plan all the personnel resources involved in the production process.**

Efficiency through transparency – Throughout the planning and production chain, you have access to transparent and granular activity data that you can then use for simulation creation, automated accounting and charging, management

information systems or other processing operations.

RailOpt People is based on the many years of experience of leading European railway companies, planning experts and development engineers.

# Application and product description

## Purpose

RailOpt People allows planners and operations supervisors to map the entire service provision process of a shift operation for a variety of areas and time horizons. The freely definable planning areas can be used to define self-contained and mutually independent planning areas (departments).

In every planning phase users have access to user-friendly tools that enable them to create simulations and service and activity plans, communicate efficiently with

the personnel and manage the deployed resources in real time.

All planning and activity data are available contemporaneously and in detailed form for further editing, e.g. for salary pre-finance.

To ensure the highest standards of quality and reliability, all the planning is performed on the basis of resource availabilities, qualifications, notification of conflicts and the predefined rule checks.

## Area of application

RailOpt People is the integrated resource management system for creating deployment plans for shift personnel (ticket sales

staff, operations supervisors, etc.). The planning covers different areas at the same time.

## Products within the RailOpt®-Suite

The RailOpt®-Suite is a comprehensive resource management solution for railway

companies. It covers the key areas with the following products:



### RailOpt® Passenger

Planning of all passenger traffic resources



### RailOpt® Cargo

Planning of all freight traffic resources



### RailOpt® Depot

Planning of activities and resources for idle times



### RailOpt® People

Planning of all shift personnel



### RailOpt® DIS

Integrated driver information system with all the details required for driving trains

## Add-on products

The following add-on products will enable you to expand a RailOpt® installation with professional add-ons.



### RailOpt® DSS

Configurable assistance system for planners to automate and optimise tasks



### RailOpt® WEB

Integrated communication systems for communication between planners and personnel, e.g. to notify delays and enter and manage vacation requests and absences via the Internet

## System overview

### Planning basis

Master data are the basis for central planning in RailOpt People. The master data include all relevant details of the deployable resources such as personnel and

topology data.

The master data can be managed manually in the system or imported from other systems.

### Personnel

The personnel master data map the personnel resources for which you need to produce the deployment planning.

attributes (e.g. personnel location), accumulators (e.g. vacation days) and qualifications (e.g. knowledge for performing specific activities).

RailOpt People manages all planning-related information in time-dependent

Figure: Personnel master data view

The screenshot displays the 'Personnel' master data view in the RailOpt People software. The interface is divided into several sections:

- Personnel List:** A list of personnel entries on the left, including 'A-Basler Anna (101)', 'A-Bellinzonaer Amelie (401)', 'A-Oltner Anton (301)', 'A-Zürcher Angelina (201)', and 'A-Basler Anton (100)'. The 'Number of entries: 78' is shown at the bottom of the list.
- Attributes Table:** A table showing the current values for selected attributes. The table has columns for 'Attribute' and 'Value'.
 

Attribute	Value
URL	
* Personnel Number	201
* Not Relevant for Planning	<input type="checkbox"/>
* Pool	Depot_Zürich
* No Work Time Check	<input type="checkbox"/>
* Area	T
- Attribute Report:** A detailed report at the bottom showing a list of attributes for the selected personnel. The attributes include: URL, Personnel Number, Not Relevant for Planning, Pool, No Work Time Check, Area, Subarea, Secondary Area, Work Time Rule Area, First day of week for Service Assignment, Cost Center, Last Name, and First Name.

## Deployment Management

Deployment Management contains all the data directly related to the deployment plan. They include Deployment days, for

instance. This allows different or seasonal deployment periods for particular days of the week to be defined.

Detail View		Deployment Weekdays	
	Sun	Mon	
Jan	3. S 3	4. M 4	
	10. S 10	11. M 11	
	17. S 17	18. M 18	
	24. S 24	25. M 25	
	31. S 31		
Feb		1. M 32	
	7. S 38	8. M 39	
	14. S 45	15. M 46	
	21. S 52	22. M 53	
	28. S 59		
Mar		1. M 60	
	7. S 66	8. M 67	
	14. S 73	15. M 74	
	21. S 80	22. M 81	
	28. S 87	29. M 88	

Figure: Calendar representation of deployment weekdays

## Topology

Topology data describe the geographic master data, such as work locations, that are directly related to deployment opera-

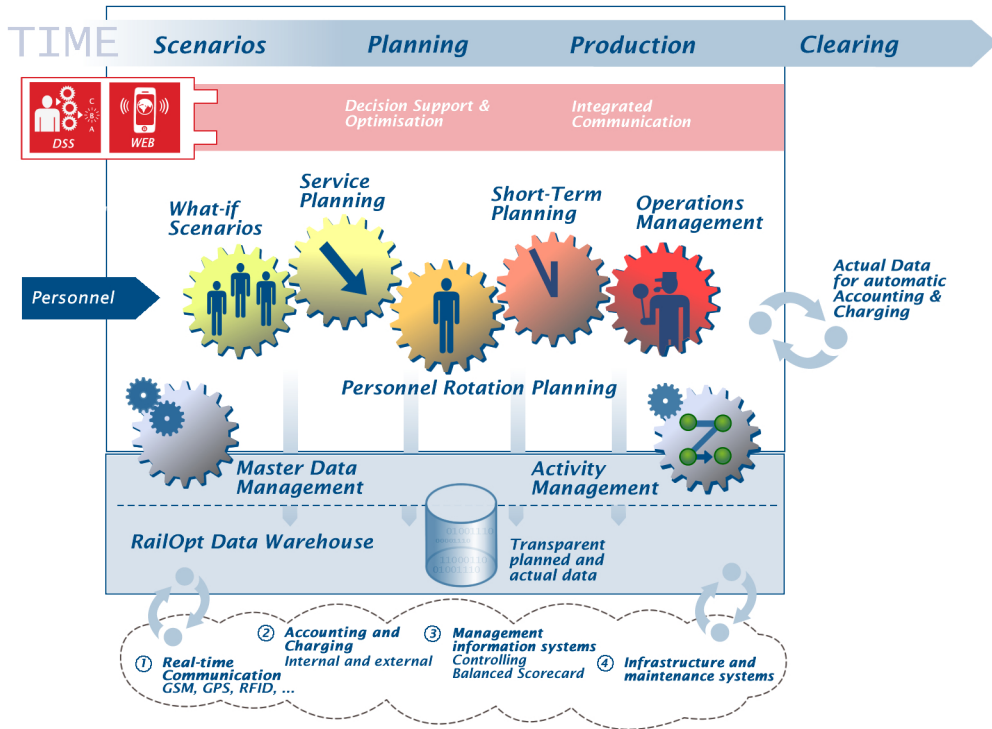
tion. All information of relevance to planning, such as owners and size, are stored in the topology master data.

## Resource planning

Resource planning is carried out across several time horizons, allowing the user to build up the plan step by step. The planning results are refined through long-term planning to deliver day-to-day operations management. There are numerous links

between the planning modules, enabling data to be transferred and exchanged between the planning modules. At the end of the activity process, the data are prepared for the salary pre-finance and available for analysis.

Figure: Example of a planning process with RailOpt People across various time horizons



## Functions and ease of use

Uniform operation steps and the consistent interface design guarantee smooth, flowing procedures across all areas and planning modules. This is demonstrated in many examples, including the facility to move activities to other resources by drag & drop, edit activities directly using the parameter window, display details in

the annotation window on the planning board itself, zoom out details or present a selection of resources in a separate tab.

The wide range of functions also speaks for itself: copy and then adapt services, interrupt Activities and then merge them again, to mention just a few examples.

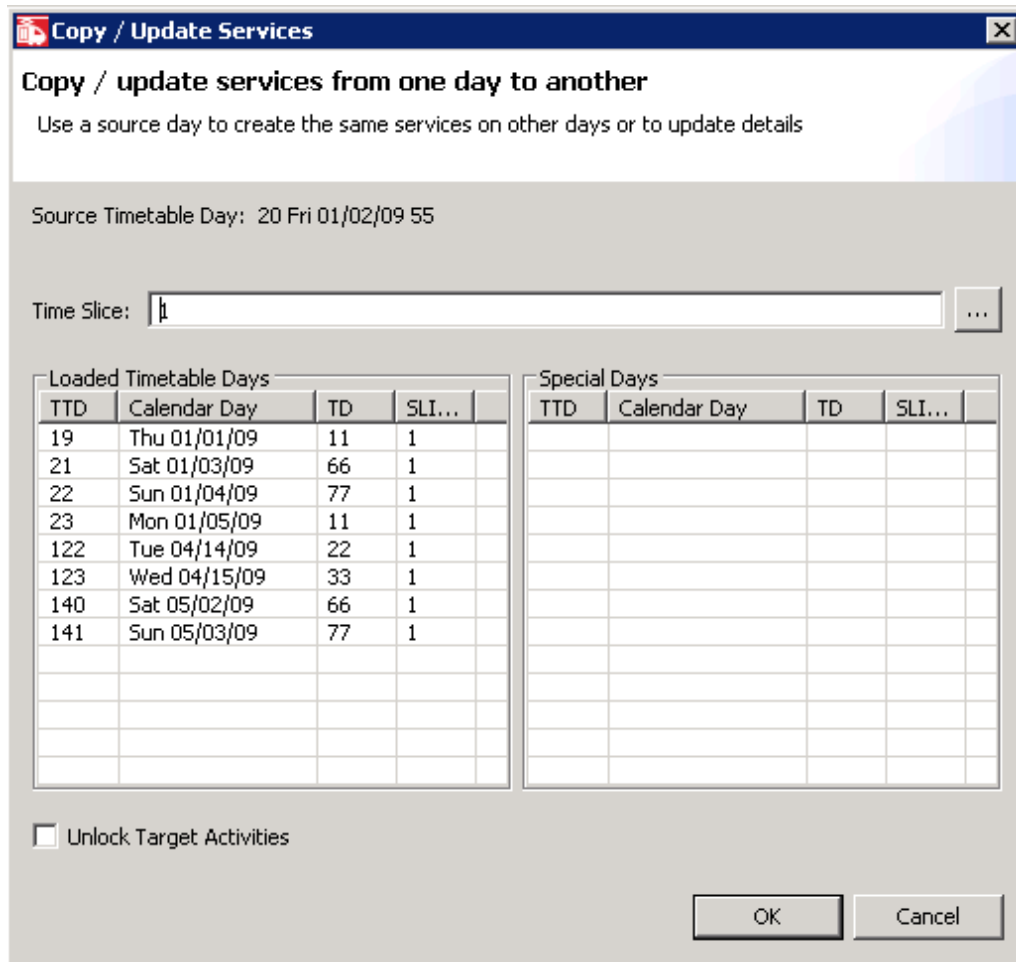


Figure: Example of the clear and focused structure of functions within RailOpt People

## Complete planning overview

Extensive queries and validations make it simple for planners and operations supervisors to gain a rapid overview of the planning and take the best possible

decisions. The outcomes can be easily output both on paper and electronically for distribution thanks to the clearly structured tabular and graphic reports.

Figure: Example of a personnel report in table form

	Time	Activity	From	To	Dep.	Arr.	Comment
1	05:30						Service start
2		Team Leader	05:30	09:30	BN	BN	
3		Break	09:30	10:48	BN	BN	
4		Team Leader	10:48	13:48	BN	BN	
5	17:01						Service end
	Time	Activity	From	To	Dep.	Arr.	Comment

Service length: 11:32      Work Time: 10:37      Break: 1:18      Break Bonus: 0:23

With its many different analysis options, RailOpt People brings transparency to resource planning:

- ▶ Using RailOpt People, you can map the entire service provision, from Service Planning Simulation to Pre-Finance. You then calculate the costs for provision based on these data.
- ▶ You create time evaluations for the completed personnel activities in Excel-

compliant file formats that you can then seamlessly process.

- ▶ You validate your planning with a few clicks and receive an overview of all conflicts and inconsistencies.
- ▶ In each planning phase you create list views, graphic and tabular reports in PDF format that can then be used as deployment plans or for internal archiving, for instance.

## Rule and qualification checks

A key feature for the production of compliant and safety-relevant planning is the integrated checking of work time rules, qualifications and depot affiliations. The underlying parameters can be freely configured. The configuration is used as the basis for checking the rules during the planning process.

If the rules are not kept, graphic highlights and messages draw the user's attention to inconsistencies and rule violations.

In addition to checking, RailOpt People also allows full qualification management to be realised, with qualifications being renewed automatically on the basis of the activities performed.

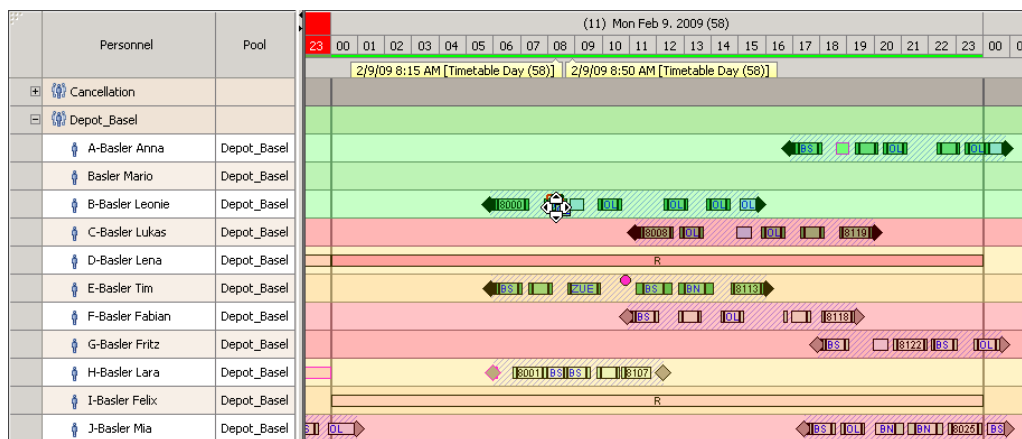


Figure: Example of a conflict preview when moving activities through colour highlights, e.g. red bars and borders

## Configurations and automation options

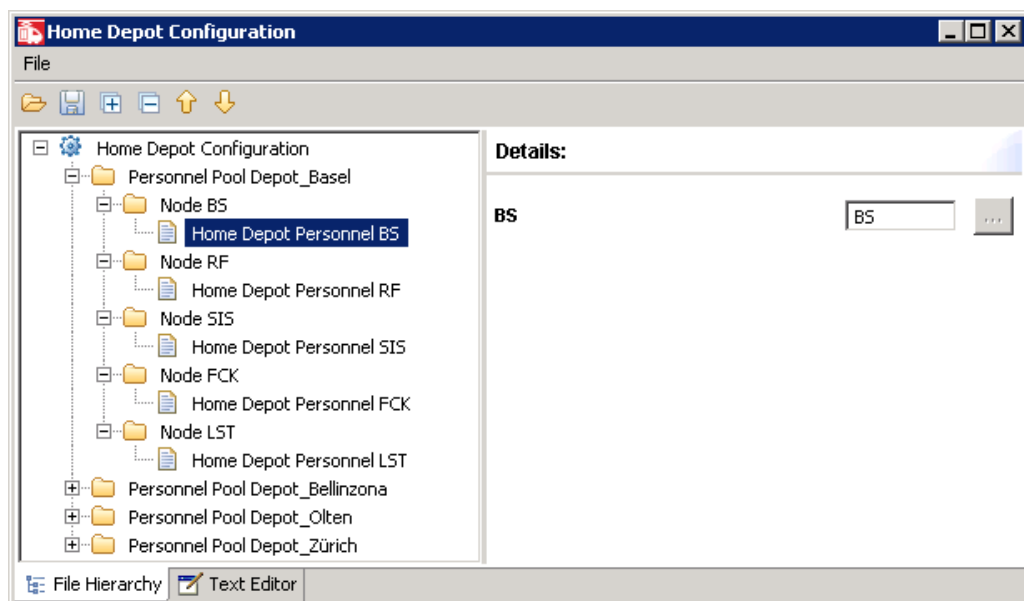
Planning in RailOpt People is based on configurations that influence certain rule checks. The planning configurations can be defined according to specific projects. This gives you the option of defining your own planning configurations in simulation projects, e.g. for what-if scenarios.

There are many different ways of using

system-wide, planning-specific configurations:

- ▶ Assignment of activity types to the resource types
- ▶ Details of the qualification checks, e.g. dependencies of plannable activity types
- ▶ Parameters for work time rule checks (break time, service shift, etc.)
- ▶ Other

Figure: Example of the graphic structure of a "Configuration - home depot"



## Technical basics

RailOpt People was developed entirely in the Java programming language and is therefore platform-independent. All RailOpt People products are based on PlanOpt®, Qnamic's own generic and modular software framework, which guarantees a high degree of flexibility when dealing with customised expansions.

RailOpt People is based on a three-layer architecture consisting of the RailOpt People client, the RailOpt application server and the RailOpt People database.

The modular structure means RailOpt People can be scaled both vertically and horizontally.

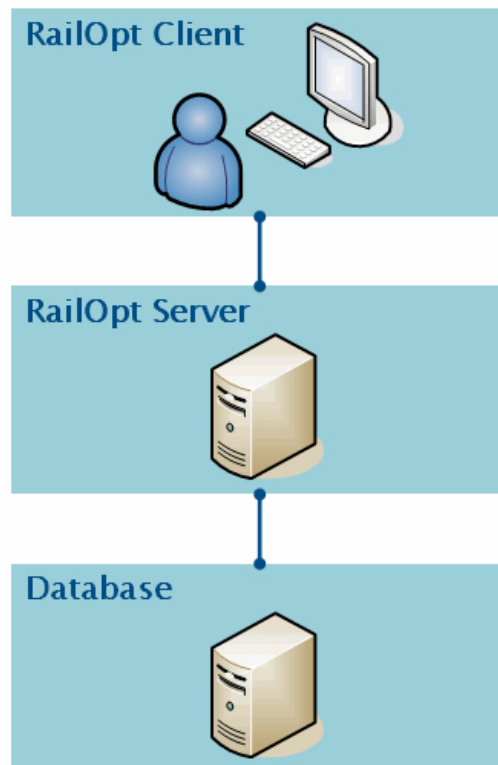


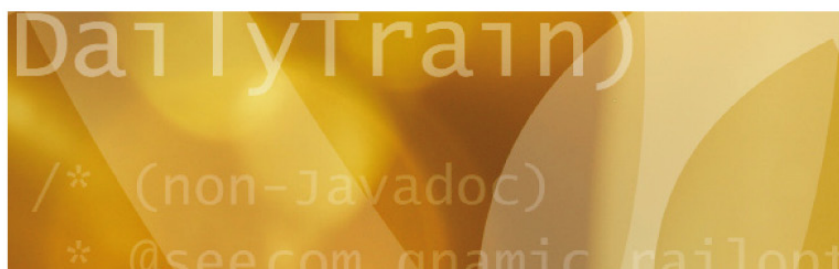
Figure: The three-layer architecture of RailOpt People

## Summary

1. **Planning of shift operation activities for all resources involved**
2. **High configurability of planning processes and rule checks**
3. **Covers all company-specific rules and regulations (e.g. work time rules, qualifications, etc.) concerning personnel and processes**
4. **Extensive and configurable report and evaluation options**
5. **Clear and intuitive interface structure across all products, areas and planning modules**
6. **Automated, contemporaneous and granular accounting and charging of planning and activity data**
7. **Easy connection to external systems (e.g. ERP systems)**

# **Qnamic**

*Intelligent  
Resource  
Management*



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