



Preventive track maintenance

The operating costs for the railway infrastructure determine the **success** of all railway companies. A significant reduction in these costs respectively an optimization of the **product life-cycle** is always based on thorough knowledge regarding the current status and future deterioration of a railway infrastructure.

Today technological progress enables a resource preserving usage of **multifunctional** measuring and inspection **vehicles** which are able to gather a huge amount of data on different parameters relating to the track infrastructure in one run.

A continuous, flexible, integrated and location related analysis of a huge amount of data and information to **optimise maintenance** activities and control the allocation of funds is up to now not possible - without **IRISSYS**®.

The Questions

Where are the weaknesses in my network?

What is the cause for an error?

Which budget can be estimated for the maintenance activities next year?

How am I able to optimize the usage of funds?

Does it make sense to bundle maintenance activities and where can that be done?

Have the appropriate measures been undertaken?

For which measures have funds been used?

What effects on the design of the timetable does the current condition of the track have?...

- these and further questions are roused by owners of the railway infrastructure, infrastructure managers as well as the European Union and national governments which allocate the funds for the railway infrastructure.

IRISSYS® supports the answer to these questions in an objective and qualified manner.

The Answer

The „International Railway Information and Services System“, **IRISSYS**® for short, is the first software which is available at the market that is designed for the management of measurement and inspection data related to railway assets and that has the capability of comprehensive, integrated analysis and predictive tools.

IRISSYS® is characterised by the following criteria:

- A configurable user and access administration guarantees that **all persons involved into maintenance have access** to the same data, but **only to the information which is relevant to them**
- All master and asset data as well as inspection data is stored into one database system.
- The scalability and the special database model enable a **simple and fast adaptation** of the software to **each national regulation and customer requirement**.
- **Comprehensive and integrated analysis tools**, which relate to the systematic aspect of the railway infrastructure.



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- **IRISSYS®** supports the infrastructure manager during the **optimisation of the maintenance process**. **Open Interfaces** supporting XML-Technology will **enable** the effortless **data exchange and communication with existing technical software** (e.g. timetable design tools) and ERP-software like SAP.
- User defined **reports and views** enable **drill-down-functionality** - from high-level quality indices, differentiated in separate colours (**traffic light function**) down to a **single error** recorded during a measurement.
- Complex **analysis and prognosis tools** enable a comprehensive support to the decision-making process regarding type, size and time of the intended **maintenance work**.
- Besides measurement data **graphical information** (pictures / video sequences) can also be stored.

The Implementation

Typically **IRISSYS®** is implemented in 4 steps:

1. Analysis and assessment of the framework conditions for the configuration of **IRISSYS®** as there are: user structure, customer relevant views and types of analysis, relevant information of the customer's railway network and information about the existing databases.
2. Configuration of the **IRISSYS®** software and implementation at the customer.

3. User introductions and trainings at several levels.
4. Customer support and consulting services for further user defined algorithms and analysis.

Depending on the size of the customer's network and the amount and structure of the data which has to be implemented the productive usage phase of **IRISSYS®** starts usually 1 - 6 month after the project kick-off.

The Users

IRISSYS® is currently used by:

Infrastructure maintenance companies (IMC) - to optimize their contractual workload.

Railway companies - for planning, budgeting and performance monitoring of IMCs.

Railway agencies - for planning and monitoring of the allocation of funds.

Inspection company - for quality control.

IRISSYS® is used in the Netherlands, the republic of Slovenia and the UK.

Further information

Are you interested in further information regarding **IRISSYS®** products? Don't hesitate to contact us under one of the following addresses:

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