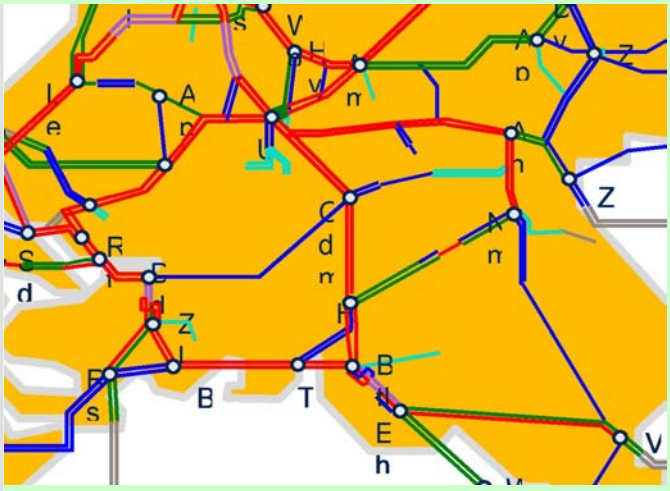
InteGRail → InteGRail Technology Platform
→ Demonstration Scenario 1 → Infrastructure Availability Checker
Demonstration Scenario 2
Demonstration Scenario 3



Maintenance

Infrastructure Availability Checker

Direct access to on-line information about the actual and future availability of the infrastructure

Integration of information is the key for further growth of railway transport volume. Decision makers will be able to make better decisions once they have the right information at hand about their own processes and about the processes of their partners in business. InteGRail is the project that developed an enabling technology to allow universal access to existing information systems, be it databases, monitoring systems or existing user applications. For this purpose InteGRail defined a standard approach for architecture and communication. Using this standard approach a number of example applications were developed. One of these applications is the Infrastructure Availability Checker that allows an operator or a Traffic Manager to have direct access to complete and actual information about the planned and unplanned un-availability and restrictions in use of the network. They need this information to plan or re-route a railway service and to determine if an adjustment in their train composition has to be made. It also gives the Infrastructure manager direct access to all data of the infrastructure in its own network and the neighbour's network.

What is the Infrastructure Availability Checker?

The Infrastructure Availability Checker is a web-based application that allows on-line access to the infrastructure databases of national infrastructure managers with the actual and future planned availability. On the European railway map the user finds information about the availability of each track in a selectable timeslot. Selection of a specific track gives the user more detailed information about the restrictions in use. This tool provides information needed to:

- determine whether a route could be used for an actual or future railway service an operator intends to offer to his customers
- determine if the restrictions in availability affect the composition of a train running a planned path
- get (historical) maintenance information.

Who can benefit?

The operator's commercial department can now sort out possible routes and customer propositions more easily, while the planning department can more efficiently optimise a possible route and rolling stock usage. Updated information gives the Operator and Traffic Manager the opportunity to take the right decisions based on actual information about the availability of the track.

The Traffic Manager can deal with a request from an operator quicker and can be more efficient in providing advice on usable routes. Moreover, the Traffic Manager and Operators now have a uniform interface to the infrastructure database of all other Infrastructure Managers.

The Infrastructure Manager's Infrastructure Maintenance Department can optimise the planning of the maintenance work on their own network, related to the planned activities on the neighbour's network.
Operators have online insight in restrictions in the infrastructure that might affect the composition of their trains.

Which benefit?
In the present railway situation, the information this tool deals with can be found in each country's individual infrastructure database. The information about the availability of the infrastructure of each country will have the same structure, according to the TAF TSI standard. This makes retrieval and analysis of the network information easy. The Infrastructure Availability Checker will reduce the time and effort needed for this information retrieval and analysis, which brings a saving in service (preparation) cost. The analysis of the realised activities can also be used to optimise the maintenance work and to reduce the main repair time.
The Infrastructure Availability information provided by this tool is compatible to the Infrastructure Restriction Notice Database as described in the TAF TSI standard.

Present status, availability and future possibilities
To be able to demonstrate the cross-border capabilities of the Infrastructure Availability Checker, information from the Dutch and Belgium railway networks were used. These two countries' information sources are a starting point only. Other country's information can be added easily, using the standard approach of accessing existing databases that was developed in InteGRail.

The Infrastructure Availability Checker is demonstrated in the Demonstration Events of the InteGRail project in Autumn 2008.

Other results of InteGRail

Architecture definition of integrated information systems: IGRIS

Semantic data structure of the railway domain, the InteGRail ontology

Example user applications: ODSS for on-line operational decision support, IAC for on-line infrastructure availability, IDT for on-line vehicle maintenance information

Description of interdependence of performance of railway processes: the railway KPI tree, and a tool to assess and visualise performance

InteGRail - Facts and Figures

InteGRail started on 1/1/2005 and ends on 31/12/2008

Total project budget:
20 million Euros

EC funding : 11 million Euros

Total effort over 125 person-years

39 partners from 11 countries

Partners of InteGRail:
UNIFE • Alstom Transport • AnsaldoBreda • Bombardier Transportation • Siemens Mobility • UIC • Trenitalia • D'Appolonia • TSB-FAV • DeltaRail • ATSF • CAF • Nortel Networks • Laboratori Guglielmo Marconi • FAR Systems • MER MEC • Italcertifer • ATOC • České dráhy • MAV • UNICONTROLS • Strukton Railinfra • Deuta-Werke • Heriot-Watt University • IMEC • OFFIS • Televic • Seebyte • Kontron • University of Chile • INRETS • Wireless Future • University of Birmingham • ADiF • RFF • ARGE Corridor X • Network Rail • ProRail • SNCF

More information:
For more information on the InteGRail project contact: helene.koepf@unife.org, or surf to www.integrail.info
For more information on the infra availability checker: roel.vandenbosch@deltarail.nl or phoekstra@strukton.com

InteGRail
INTElligent inteGration of RAILway systems