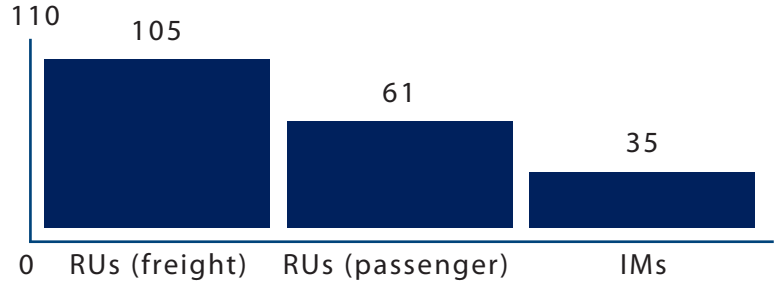
International Path Coordination

http://pcs.rne.eu

RNE PCS
Path Coordination System

Co-financed by the European Union
Connecting Europe Facility

Europe is using RNE PCS



1500

Users

There are approximately 1500 active PCS users

30

Countries

30 countries throughout Europe use PCS on a daily basis

105

RUs (freight)

105 RUs require PCS to coordinate their desired timetables for their international freight lines

61

RUs (passenger)

61 passenger RUs use PCS to coordinate their timetables for international trains across Europe

35

IMs

35 IMs in Europe use PCS to harmonise their paths for cross-border traffic

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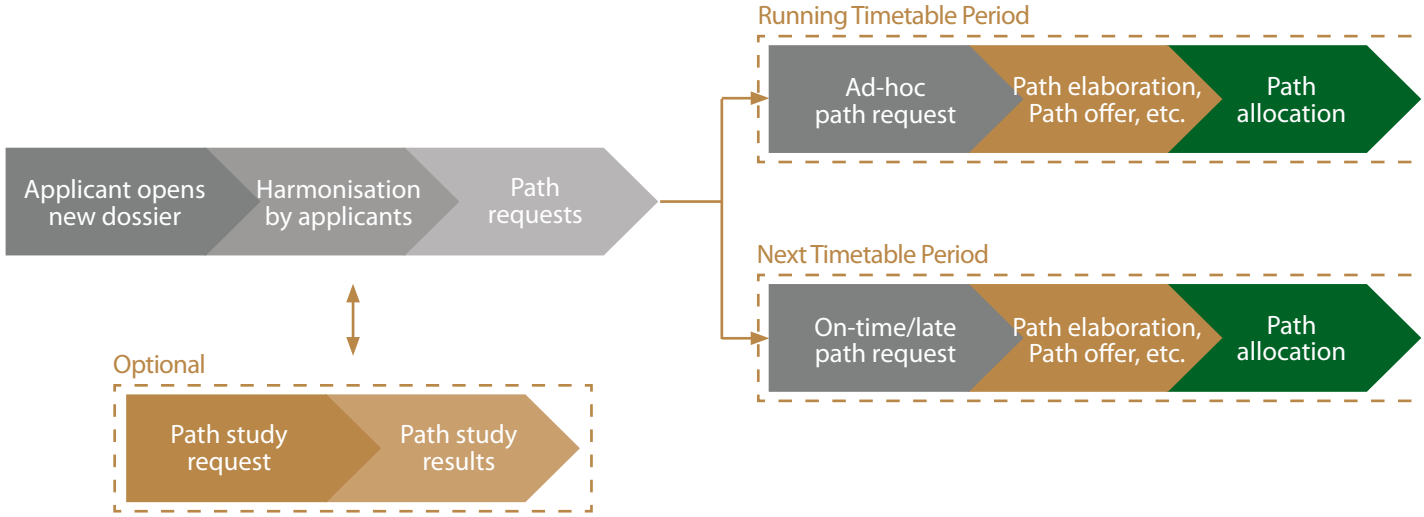
Path Coordination System (PCS)

What is the Path Coordination System (PCS)?

The Path Coordination System (PCS) is an international path request coordination system for path applicants, e.g. Railway Undertakings (RUs), Infrastructure Managers (IMs), Allocation Bodies (ABs) and Rail Freight Corridors (RFCs). The internet-based application optimises international path coordination by ensuring that path requests and offers are harmonised by all involved parties. Input for international path requests needs to be placed only once into one system either into the domestic application or directly into PCS.

Path Coordination System (PCS) and Timetabling Process



General requirements

- Harmonisation of international path requests with partners and all involved parties
- Easy handling of path requests
- Easy communication
- Transparency in workflow and processing status
- Decreased dwell times at borders for trains on international paths

PCS provides...

- a platform for handling harmonised international path requests, path studies, path offers and path allocations – without any paperwork
- a quick, secure and easy communication between all parties (path applicants, IMs/ABs, Corridor OSS)
- a flexible system – updated to fulfil future requirements of European legislation
- international standardisation of the data structure and the availability of international timetable data

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TAF/TAP TSI & Regulation 913/2010

Requirements for TAF/TAP TSI & Regulation 913/2010

TAF/TAP TSI*

defines data exchange between Infrastructure Managers (IMs) and Railway Undertakings (RUs)

Requirements

Regulation 913/2010

requests Member States to establish international market-oriented Rail Freight Corridors

Requirements

RNE PCS
Path Coordination System

fulfills TAF/TAP TSI & Regulation 913/2010 since 2013

Fulfilling TAF/TAP TSI requirements

» Processes have been implemented

» Messages are supported

» Formats are used by new requests

» TAF/TAP TSI Reference files can be used

TAF/TAP TSI compatibility

» Implementation of TAF/TAP TSI requirements: PCS is the first timetable coordination system fulfilling TAF/TAP TSI

» PCS Integration Platform has been pre-conditioned for TAF/TAP TSI implementation and is able to communicate via Common Interface (CI)

The European Railway Agency (ERA) has checked and approved the TAF/TAP TSI compatibility of PCS.

Fulfilling Regulation 913/2010 requirements

» PCS handles Pre-arranged Path (PaP) requests and supports path allocation and management of reserved capacity for ad-hoc path requests on RFCs

» PCS helps the Corridor One-Stop-Shops (C-OSS) to fulfill their capacity allocation tasks on corridors

» PCS provides a transparent path request and path allocation process, which may be evaluated by Regulatory Bodies (RBs)

Compatibility with Regulation 913/2010

Implementation of 913/2010 requirements was the main objective of recent developments.

** Technical Specification for Interoperability relating to Telematic Applications for Freight / Passenger*

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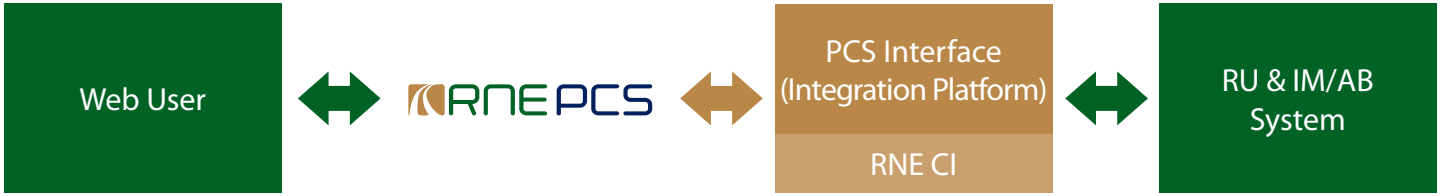
Functional architecture

Overview of functional architecture



PCS Core System - Web Application

» No installation needed, only a standard web browser (Internet Explorer, Firefox, Chrome, etc.)

» Users work with web browser and place requests directly into PCS Core System

PCS Interface (Integration Platform) - Service Oriented Architecture (SOA-based approach)

The PCS Interface (Integration Platform) as well as the RNE CI (Common Interface) were developed to simplify data exchange between the Path Coordination System (PCS) and national systems. It enables easy access to PCS, and makes data interchange suitable for international developments and standards such as TAF/TAP TSI. This system-to-system communication enables the triggering of path request processes in PCS from national systems and vice versa.

Benefits of communication with PCS Interface (Integration Platform)

» No double data input – you type it once into your system, the data is forwarded to PCS

» Continuous information about the status of international dossiers – any change in dossier data or status that is relevant for your company is transmitted automatically to your system

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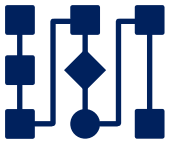
Additional information at http://pcs.rne.eu

PCS animation

Learn more about PCS with a video animation, produced by RNE to explain the functionalities of PCS. The animation illustrates the standard processes followed by these tools in an easily-understood way.



PCS process guidelines

Detailed description of how PCS can support you in the international timetabling process. The document can be downloaded at http://pcs.rne.eu.

PCS test and training systems

Protected area with the possibility to test PCS and simulate the international path coordination process.

To gain access, please contact the PCS Service Desk at support.pcs@rne.eu.

RNE Content Management System (CMS)

RNE CMS offers an interactive way of learning how to use PCS. You can access the CMS at http://cms.rne.eu. There you will find all the necessary documentation, reference manuals and guides, as well as the PCS eLearning platform.

PCS change request and patch management

Allow you to stay updated on the latest developments and status of PCS.

Continuous development of PCS

It is planned to include some new features in the Path Coordination System (PCS) in order to improve the usability of the system and to cover all types of capacity and path products, especially for trains at short notice.

PCS Next Generation

The new modern interface of PCS Next Generation is state-of-the-art. The new software and visual design in PCS NG have been adjusted to users' needs, thus improving usability and accessibility. System performance will increase and future updates will be easier to perform from a development point of view.

PCS NG has taken into account user feedback in order to provide a more satisfying user experience. Thanks to its adaptability, PCS NG will be able to respond to current train path-planning complexities as well as to future needs.

Continuous development of pre-constructed products

RNE is continuously developing products for Rail Freight Corridors (RFCs) and their Pre-arranged Paths (PaP). Thanks to fixed and flexible PaPs, RFCs, Infrastructure Managers (IMs) and Allocation Bodies (ABs) are able to supply and sell instant capacity products whose response times closely fit market needs for capacity at short notice.

RNE is also working to assist Railway Undertakings (RUs) as well as RFCs that would like to request PaPs for certain days when a PaP is originally not available. In order to save time and avoid work duplication at the RU, PCS provides a 'Combined PaP/Tailor-Made' solution with automatic generation of subsidiary timetables for the unavailable days.

Standard format of main and subsidiary timetables

In order to improve the current situation, where each involved party can create subsidiary timetables according to their own wishes, several rules will be introduced in PCS for the main and subsidiary structure; this will make it possible to reach a TAF/TAP-TSI compliant format. The aim is to introduce constraints and functions to support the 'envelope' concept for the main and subsidiary timetables. Under an umbrella that should be fulfilled by the main timetable and its calendar, the subsidiaries will be valid for the RU – IM pair on a basis similar to TAF/TAP-TSI communication.

** Technical Specification for Interoperability relating to Telematic Applications for Freight / for Passengers*

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What our PCS users are telling us

"Working with PCS has been a pleasure. The system is intuitive and it offers a reliable and harmonised path request through IMs, and then we as RUs achieve a more stable planning in production for customers.

The coordination runs more smoothly as we can create one path request and receive a complete harmonised path offer back of IMs for international transports running in Europe. A good example is the traffic between Scandinavia and Italy in one system. I look forward to having more traffics and more benefits from PCS in the coming years."

Anni Boserup - DB Schenker Rail Scandinavia

"Having the chance to work for a fully international RU operating high speed trains on 4 networks with several RU partners, PCS has become our reference platform to order our international paths. PCS does not replace the human contacts but is a perfect information sharing platform between IMs & RUs and totally complementary to the FTE conferences. We could not imagine anymore another way to harmonise our trains at the border & to build long-distance connections. We at THALYS hope PCS will become even more important than the existing IM national tools in the near future."

Jean Quaeyhaegens - Thalys Thi Factory

"The members of Forum Train Europe FTE are supporting the development and use of the web-based communication system PCS with a high degree of specialist expertise. In terms of passenger traffic, PCS has long been established as an ideal tool for harmonising production plans and path requests for the annual timetable for international traffic. This harmonisation takes place throughout the entire FTE process, from the train planning stage through to the final path allocation. As for freight traffic, we are also very much interested in using PCS to take international coordination on production and train paths into a new, dynamic dimension of information technology. The Pre-arranged Paths (PaPs) on the Rail Freight Corridors, which have now been available in PCS for two years, represent the first step in this process of development..."

Matteo Soldini - FTE (Forum Train Europe)

PCS Service Desk

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