

## **MONITORING THE MOVEMENT OF WAGONS**

As part of the reorganisation of the railway undertakings in Slovakia in 2005, ZSSK CARGO started to develop its own operating information system to support its core business process - the carriage of goods. The new information system designed to support the ZSSK CARGO operating processes (hereinafter as the "ISP") was put into service on June 4, 2007, thus replacing the IRIS-N information system used until then. Concurrently with the development of applications for the needs of ZSSK CARGO operations, there were also applications developed to support the customer information service designed to monitor the movement of wagons within the ZSSK CARGO perimeters as well as within the perimeters of the European rail carriers engaged in the ISR (International Service Reliability) project.

### **The following carriers are engaged in the ISR project:**

- B-Logistics (2188, Belgium)
- CD Cargo (2154, Czechia)
- CFL Cargo (2182, Luxembourg)
- DB Cargo DE (2180, Germany)
- DB Cargo DK (2186, Denmark)
- DB Cargo NL (2184, Netherlands)
- DB Cargo RO (3146, Romania)
- DB Cargo BG (3247, Bulgaria)
- Euro Cargo Rail (3187, France)
- EXTRA (3147, Slovakia)
- Green Cargo (2174, Sweden)
- Nordcargo (2380, Italy)
- RENFE (1071, Spain)
- RCA (2181, Austria)
- RCH (2155, Hungary)
- SBB Cargo (2185, Switzerland)
- SNCF Fret (2187, France)
- SZ (2179, Slovenia)
- Mercitalia Rail (2183, Italy)
- ZS (0072, Serbia)
- ZSSK Cargo (2156, Slovakia)

## Applications designed to support the customer information system

The applications designed to support the customer information system are available via the internet at the ZSSK CARGO website [www.zscargo.sk/en/](http://www.zscargo.sk/en/) as a portfolio of ONLINE services in the customers section, through a link to - [ISP customer portal](#). This is a portlet-based information access solution where the customer has, based on access rights management, access to information on wagons and wagon loads within the ZSSK CARGO perimeter as well as within the perimeters of the cooperating carriers engaged in the RAILDATA projects.

The current portfolio of customer services is presented by a link to the **Portfolio of Customer Portal Additional Services**, which is regularly updated whenever changes are made to the applications or if new customer information services are launched.

The application designed to monitor the movement of wagons is available via a link to - [ACCESS – ISP customer portal](#). The customer will receive customer portal access data (username and password) after concluding a valid Freight Procurement Contract (FPC). The user manual is part of the application, as well.

The applications designed to support the customer information service (provided based on the FPC) include:

- monitoring the movement of wagons via the ZSSK CARGO Customer Portal - [Wagons](#), which provides information in real time based on predefined input parameters,
- sending reports to designated electronic addresses and at designated times.

### Description of the wagons movement monitoring application:

The **Wagons** web application is divided into two portlets: **Wagons overview**  
**Available wagons**

**Wagons overview** – contains wagons information that currently is available to the user based on his access rights (current wagon, wagonload and order status including the layout and technical condition of a wagon). It also enables displaying the particular wagon history over a certain period (past three months at the utmost).

**Available wagons** – this displays wagons that are or were available to the user at the given time based on his access rights and other filtration conditions. It also enables displaying the particular wagon history over a certain period (past three months at the utmost).

Another option for the portlets to be launched individually is using the **Main page** tab, where the **Applications** portlet contains links to get a history in the section **Wagons – Wagons monitoring** and **Available wagons**.

The displaying of the individual portlets and the availability of individual actions depend on how the user's access rights are set.

After entering the input parameters and confirming the option 'search', an overview of wagons that meet the input parameters is displayed to the user. Such an overview can, in such structure as displayed on the user's screen, be then exported into an .xls file for further processing.

Figure 1 - The input mask for entering the parameters to select a wagon

Filter vozňov VZVZ002

Manager

Úplné číslo vozňa

Druh vozňa >>

Držiteľ >>

Štát akt. stanice >>

Aktuálna stanica >>

Štát odos. stanice >>

Stanica odosielacia >>

Štát stanice určenia >>

Stanica určenia >>

Prevádzkový stav

Stav loženia

Číslo vlaku

V stanici určenia  Všetky  Áno  Nie

Vo vlaku  Všetky  Áno  Nie

V opravovni  Všetky  Áno  Nie

Na Slovensku  Všetky  Áno  Nie

S prepr. dokladom  Všetky  Áno  Nie

V objednávke prepr.  Všetky  Áno  Nie

S dipozíciou  Všetky  Áno  Nie

**Prepravný doklad**

Štát odos. stanice >>

Stanica odosielacia >>

Podacie číslo

Dátum podaja

Odosielateľ IČO alebo č.

Štát stanice určenia >>

Stanica určenia >>

Kód NHM

**Objednávka prepravy**

Číslo

Do stanice >>

Filter vozňov	Wagon filter
Úplné číslo vozňa	Full wagon number
Držiteľ	Holder
Štát aktuálnej stanice	Country of current station
Aktuálna stanica	Current station
Štát odosielacej stanice	Country of dispatching station
Stanica odosielacia	Dispatching station
Štát stanice určenia	Country of destination station
Stanica určenia	Destination station
Prevádzkový stav	Operating status
Stav loženia	Loading status
Číslo vlaku	Train number

V stanici určenia	At the destination station
Vo vlaku	On the train
V opravovni	In the repair workshop
Na Slovensku	In Slovakia
S prepravným dokladom	With a transport document
V objednávke prepravy	In the transport order
S dipozíciou	With an instruction
Všetky	All
Áno	Yes
Nie	No
Prepravný doklad	Transport document
Podacie číslo	Filing number
Dátum podaja	Filing date
Odosielateľ IČO alebo č.	Consignor BIN or No.
Kód NHM	NHM code
Objednávka prepravy	Transport order
Číslo	No.
Do stanice	To station

Figure 2 - Output overview of the movement of a wagon

The screenshot shows a software application window titled "Udalosti na vozni" (Events on the wagon) with the window ID "VZVZ103". The interface includes a search bar for "Vozeň" (Wagon) with the value "21 56 071 5028-5" and a date range for "Udalosti za obdobie od" (Events for the period from) "01.09.2011 15:00" to "05.09.2011 15:00". A "Zobrazíť" (Show) button is also present. The main data is presented in a table with the following columns: "Čas vzniku" (Time of occurrence), "Kód" (Code), "Popis udalosti" (Description of event), "Stanica udalosti" (Event station), "Vlak" (Train), "Východzia stanica vlaku" (Origin station of train), and "Cieľová stanica vlaku" (Destination station of train). The table contains six rows of data, with the first row highlighted in orange.

Čas vzniku	Kód	Popis udalosti	Stanica udalosti	Vlak	Východzia stanica vlaku	Cieľová stanica vlaku
2011-09-05 09:15:00	067	Dodaj zásielky	56 145060 Bratislava vychod			
2011-09-05 06:55:00	085	Prichod vlaku do stanice	56 145060 Bratislava vychod	061700	56 179150 Zilina	56 145060 Bratislava vychod
2011-09-05 02:15:00	122	Odchod vlaku zo stanice	56 179150 Zilina	061700	56 179150 Zilina	56 145060 Bratislava vychod
2011-09-04 23:56:00	085	Prichod vlaku do stanice	56 179150 Zilina	061530	56 136002 Kosice	56 179150 Zilina
2011-09-04 14:30:00	122	Odchod vlaku zo stanice	56 136002 Kosice	061530	56 136002 Kosice	56 179150 Zilina
2011-09-04 13:38:00	065	Prijatie zásielky na prepravu	56 136002 Kosice			

Vozeň	Wagon
Udalosti za obdobie od do	History of events over a period from to
Zobraziť	Display
Čas vzniku	Time of occurrence
Kód	Code
Popis udalosti	Event description
Stanica udalosti	Event station
Vlak	Train
Východzia stanica vlaku	Forwarding station
Cieľová stanica vlaku	Destination station
Dodaj zásielky	Delivery of consignment
Príchod vlaku do stanice	Train arrival at the station
Odchod vlaku zo stanice	Train departure from the station
Prijatie zásielky na prepravu	Consignment accepted for transport

Figure 3 - The input mask for entering the parameters to select available wagons

Filter dostupných vozňov	Wagon filter
Bez diakritiky	No diacritics

Úplne číslo vozňa	Full wagon number
Druh vozňa	Type of wagon
Obdobie od do	Period from to
Pridať ďalšie výberové podmienky	Add other selection criteria
Vozne s držiteľom	Wagons with a holder
Držiteľ	Holder
Vozne s prepravným dokladom	Wagons with a transport document
Podacie číslo	Filing number
Dátum podaja	Filing date
Vozne v objednávky prepravy	Wagons in the transport order
Číslo objednávky	Order number

Wagon position is identified by the last event code and its description. Depending on whether the position of a wagon within the ZSSK CARGO perimeter or abroad should be monitored, such an event is assigned a numeric code valid for the ZSSK CARGO perimeter or a text and a code valid for monitoring the position of a wagon abroad (so-called "WSM\_code").

If after entering the input parameters, no output is displayed on the screen within two minutes, the system offers an option to send the output to the e-mail address defined by the administrator when establishing the access rights.

#### **Description of the reports sending application:**

Another manner of supporting the wagon position information service is the automatic sending of reports from the ISP system to the designated e-mail addresses of the applicant at designated time intervals. Such reports are categorised into two groups:

- **Standardised reports group** (TV01,TV02,TV03,TV04 - the individual reports and their structure are described in more detail in the Portfolio of Customer Portal Additional Services).
- **Customer-defined reports group** - such reports are processed based on the defined requirements submitted by the customer. After an initial analysis is made by ZSSK CARGO, the customer is notified of the conditions upon which the requested output can be processed.

Both groups of reports are sent in the following output formats (xls, pdf, txt, html, xml).

More detailed or additional information concerning the monitoring of wagon positions via the mentioned applications should be addressed to the Infoservice.

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*Note:*

*A connection via the rail telephone network is possible by using the respective area code (Košice – 910) followed by the underlined subscriber number.*