



Vossloh RailWatch GmbH

# Micro Pulsar

the innovative OCR-Gate



As of: 05/2025

# The MicroPulsar

The MicroPulsar is our innovative OCR gate solution which, due to its compact size, can be installed almost anywhere next to your infrastructure. Passing freight trains are captured by a highresolution camera - information such as the UIC wagon numbers, exterior views of the wagons, wagon sequence, hazardous goods, BIC/ILU codes aswell as the presence of graffiti are analysed using computer vision and artificial intelligence. The data is then provided to you via our web portal or via an interface directly in your company's own system.

The installation of the MicroPulsar does not require any authorization or work in or above the track. It can be set up next to the track at a maximum distance of 4 m within one day.

Only a standard 230 V mains connection and an internet connection are required for technical operation. If a LAN connection is not available, data can be transmitted via LTE or 5G.

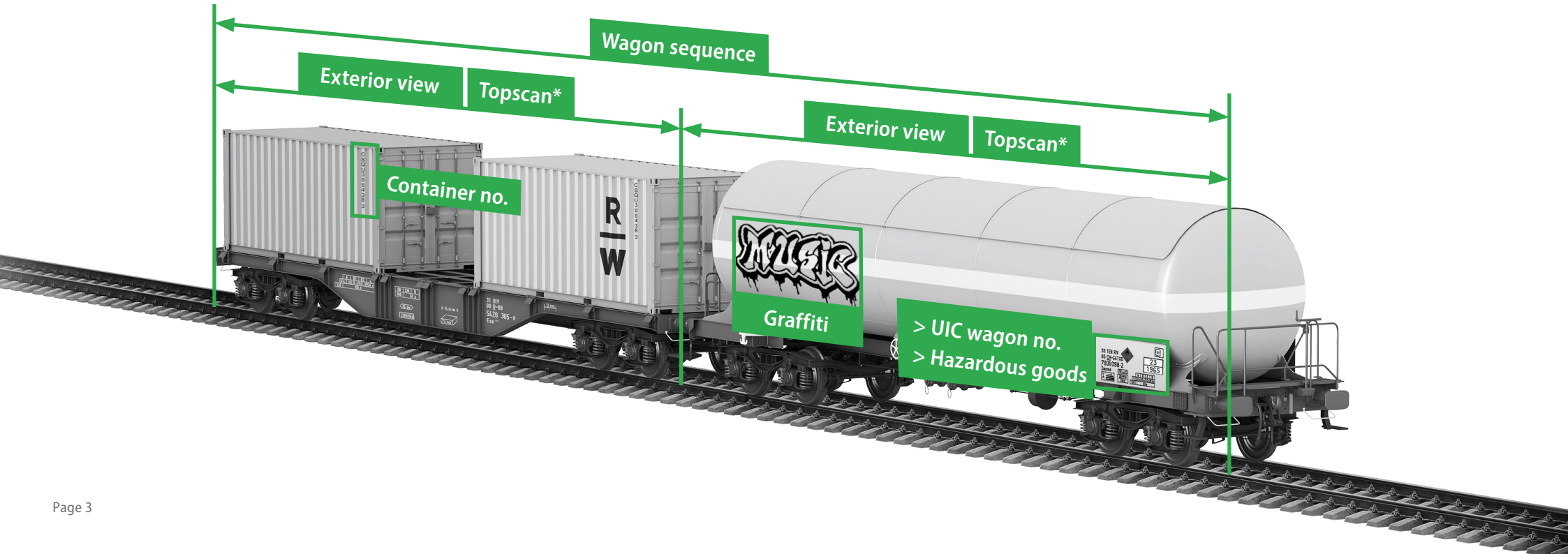


# Description of the data

The recorded data supports you in your incoming and outgoing goods inspections and facilitates internal processes in your area of responsibility. You always have an overview of which trains and which wagons arrive and depart in which order. This increases your productivity and prevents unforeseeable disruptions - saving you time and, above all, money.

## UIC wagon number

The UIC wagon number is used to identify and assign the respective wagon. All other information about the wagon is assigned to the corresponding UIC number. Our detection rate is 99% - achieved through a combination of optical methods and the analysis of RFID information.



### **Wagon sequence**

The wagon sequence shows you the order of the wagons in the train formation. This simplifies your inbound handling process - you can compare the wagon list with the incoming wagons conveniently from your desk.

### **Exterior view**

The detailed exterior view of the wagon, based on high-resolution images, allows you to check the wagon for external damage. Depending on the wagon type, you can also determine which kind of cargo is on the wagon.

### **Topscan\***

Thanks to a camera mast that does not require the track to be built over, the TopScan extends the external view of the wagon with an image from above. This makes it possible to identify individual conditions of the wagon, such as an open dome cover, and provides information about the current load.

### **Hazardous goods**

You can use the hazardous goods information to identify whether there are dangerous goods on the train. By recognizing the dangerous goods sign, you receive the respective hazard number/UN number and thereby know directly what kind of dangerous goods the wagon is transporting.

### **BIC/ILU Code**

For loaded intermodal wagons, the BIC codes of the containers or the ILU codes of the semi-trailers are made available to you. This information can speed up loading and unloading processes.

### **Graffiti**

The graffiti information indicates whether graffiti is present on the wagon and if so, how many square meters of the wagon are covered by it. The exact position of the graffiti can be checked using the exterior view of the wagon.



# Description of the provision of data

## Web-based portal

You will receive access to our web portal with the Traincheck, Fleetcheck and Wagoncheck interfaces. The information is presented to you visually.

### Traincheck ▼

Traincheck is a comprehensive overview of your trains with direct display of the respective wagon sequence and high-resolution detailed views of the individual wagons. If required, a tabular wagon list can be downloaded at the touch of a button.



## Fleetcheck ►

With Fleetcheck, you always have an overview of all your wagons, clearly organised in a tabular overview.

## Wagoncheck ▼

If you are interested in a particular wagon, you can see both the current measurements and historical measurements of this wagon in the wagoncheck view.

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Dashboard

Fleetcheck

Wagoncheck

Traincheck

Watchlist

Blacklist

#			03/31/24 - 04/02/24	alle
33 80 0000 001-6	0659 - Tanpps	02.04.2024 09:14	Heringen1	
33 80 0000 001-6	0659 - Tanpps	02.04.2024 09:14	Heringen1	
31 80 0000 001-4	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-8	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-1	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-3	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-0	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-7	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-3	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-6	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	
31 80 0000 001-3	4953 - Sggmrs	02.04.2024 09:14	RFC 3 - Fulda 1	

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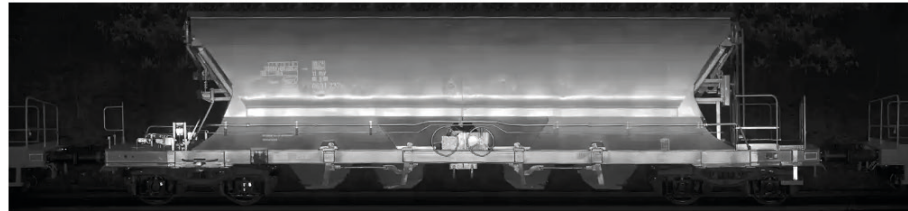


02.02.2024 - Heringen1

Add to watchlist

Exclude wagon from dashboard view

### Wagonprint



### Side detection



### Train direction

Uelzen (DE) - Hamburg (DE)

### Keeper (GCU)

Wagon no. 31 80 0000 001-8  
Keeper GCU Cargo AG  
VKM GCU  
Telephone +49 30 277 123 123  
E-Mail k.ahn@guestmail.com

### WAGON HEALTH

31 80 0000 001-8  
Position of axles/wheels in direction of measurement  
Axle 1  
Axle 2  
Axle 3  
Axle 4

### ▼ Topscan\*

The addition of the top view makes inspection much easier. This additional perspective on the wagon means that open dome covers or incompletely closed roofs, for example, can be identified immediately. With open wagons, it is possible to recognize whether a wagon is unloaded or loaded and whether the load is unevenly distributed.



## Interface (API)

In addition to our portal, you can also access the data via an interface solution. We offer you the option of using a standard interface (we specify the data fields and structure) or implementing a customized interface solution that integrates the data directly into your system. With both options you have the choice of whether we should actively send you the data as soon as it is available (PUSH) or whether you would prefer to retrieve the data on demand (PULL).

Each interface keeps the required data available for you in a dedicated database. In this way, we minimize latency and achieve the highest possible availability. The data is always provided via a REST API.

If you do not want to retrieve the data yourself (PULL), but would like us to send it to you as soon as it is available (PUSH), we will be happy to add a customised service that forwards the data directly to your system on arrival.





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