

NUMBER Check – Feature: Placard detection

Up to now, the recording of dangerous goods in both rail and road transport has been done via the ADR/UN numbers.

With a commission from a renowned customer, we have now been able to expand our NumberFinder software with an additional feature: NUMBERCheck OCR Gate now also recognises dangerous goods placards.

01-2021 **INFORMATION**

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Hazardous goods are all substances, mixtures or goods that can be dangerous to people and the environment during transport due to their physical or chemical properties.

Hazardous substances are, for example, irritant, toxic, explosive, carcinogenic or can cause a fire if handled incorrectly. Therefore, it is especially important in logistics to comply with all regulations for dangerous goods - both during transport and storage.

Source: Logistik Knowhow



The optical detection during day and night covers the presence of all placard classes. For this purpose, we use modern machine learning algorithms, which also work perfectly in changing weather conditions.

Of course, the detected placards are automatically assigned to the corresponding wagons and loading units by our NumberFinder software. The recognised information is transferred to the higher-level customer system (e.g. TOS, TMS, etc.) via xml push. At the same time, the corresponding images are also included in this information.

Digitisation at the Container Terminal Linz with NUMBER Check - Rail Gate

Linz Service GmbH operates the connecting railway at the port of Linz. Until now, the registration of trains was carried out purely manually. The entire train had to be walked through by one employee in a time-consuming process and all relevant vehicle numbers and characteristics had to be recorded individually. In order to automate this process, the "installation of a photogate" at the access track to the port area was put out to tender and realised by ASE GmbH.

The "Digital Rail Gate", as it is called by the Port of Linz, was built for operation on one track in two directions.

All trains passing this track to the "Stadthafen Linz" preliminary station to the connecting track of the Port of Linz - or leave it again - are detected and recorded using highly efficient sensor components.

Each train is registered with an identification number. In addition, the operator receives information about the train's direction, date & time, number and sequence of wagons as well as the UIC wagon numbers, cargo units (BIC/ILU code) and dangerous goods labels.

In addition, image-based documentation of damage to wagons and containers is available.





"Due to the resulting high recognition accuracy, the Linz container terminal can now extremely accelerate its logistical disposition. The rapid exchange of data ensures shorter handling times as well as higher handling capacities and, overall, makes a significant contribution to the further modernisation and digitisation of the Linz Container Terminal at Linz AG Port."

Source: Linz AG, press review https://www.ase-gmbh.com/downloads-videos

More press releases: <u>https://www.wirtschafts-</u> <u>nachrichten.com/news/containerterminal-linz-nimmt-neues-</u> <u>digital-rail-gate-in-betrieb</u>

Our OCR system NUMBER*Check* - Rail Gate achieves its high reliability through a quasi 3-dimensional recording of the loads by area scan cameras in contrast to line scan cameras, which only work 2-dimensionally.

While a line scan system only captures the passing object line by line, the ASE NUMBER *Check* system captures several complete images from different positions when a load passes through. So if a label on the wagon or container is difficult to read from one position, it is often easier to recognise from another position.

These images are then superimposed by means of special software and the NUMBER*Check* system thus identifies lettering much better and more reliably than line scan systems. Thus, passing vehicles are captured in their full length image-wise.

Record

Digitize

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Did you know ...

A particularly unique selling point is the fact that our system records and processes all train data even when the train stops and continues its journey, without this data being lost due to this interruption in the passage.

This distinguishes us significantly from our competitors, for whom continuous passage is a must.

CCTV: Some examples from the world of video surveillance

EEW Energy from Waste GmbH currently operates 18 waste incineration plants in Germany. The consistent use of state-of-the-art technologies meets the highest standards of efficiency, availability and environmental protection. (Source: EEW). Intelligent video surveillance systems, among other things, are used for safe process monitoring.

This is also the case at the waste-to-energy plant in Pirmasens. Here, the successive renewal of sensor components is planned for the near future. Analogue IP cameras are to be replaced with network-compatible IP cameras, which will then be maintained and serviced. We are pleased about this interesting request and will be happy to take care of the maintenance and error-free functioning of the existing system until then.

The integration of the image data is done via a Video Management System (VMS) for digital storage and transmission of video and audio data from IP cameras as well as encoders in connection with state-of-the-art compression and image analysis algorithms and support of GPU-accelerated image processing.

The thermal residual waste treatment and energy generation plant (TREA) at the Eschbach (Breisgau) site is also equipped with a video surveillance system from our company.

Process surveillance at Vestolit in Marl

VESTOLIT GmbH in Marl, with Europe's largest fully integrated PVC site, produces plastics for high-quality and durable products for general use. The high quality of the products is due not only to well-trained employees but also, of course, to the use of the latest technologies. (Source: Vestolit).



This makes it all the more important to monitor these modern production facilities as well as sensitive and safety-relevant processes with intelligent video systems.

Video servers from Geutebrück (ASE is a premium partner) are used to store the image data. At the same time, the image data is integrated into the company's control room and can be viewed accordingly by means of viewer and client licences.

In the case of central monitoring via control room systems, the images can be displayed "live" in the user interface at the click of a mouse. Malfunctions can thus be quickly detected and emergency measures initiated.



Do you have any questions or are you looking for an individual, image- or video based solution for a monitoring relevant process in your company? My team and I will be happy to advise you - give us a call: +49/7251/932590 / or write us an e-mail: <u>vertrieb@ase-gmbh.eu</u>

> Yours Eric Steck -CEO-



