Target	Record	**Digitize**

ASE News

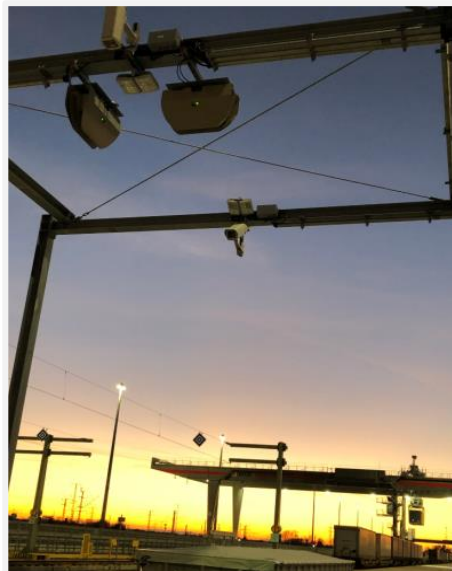## OCR Technology from ASE at MegaHub Lehrte

A new high-speed transshipment facility, the MegaHub Lehrte, was built on the site of the former Lehrte marshalling yard. The groundbreaking ceremony took place in May 2018. With high-performance portal cranes, a new type of sorting system and an automatic consignment registration system for trains and trucks, goods will be handled much more faster and efficiently here in the future.

In November 2019, the tender for the work "Automatic shipment registration of loading units and means of transport in combined rail/road traffic"" was issued. This covered the supply, installation and commissioning of:

➢ various barrier systems incl. traffic lights and intercoms to control the traffic flow on the site,

➢ a camera system for crane observation and monitoring of the barrier systems,

➢ two Truck Gates for the detection of trucks as well as their loading units in the entry and exit area incl. plant protection (concrete guide walls),

➢ two Rail Gates for the detection of trains as well as loading units in the eastern and western entry area in walkable portal construction.

Picture 1: Rail Gate, walk-in portal

Picture 2: Truck Gate

Picture 3: Barrier system incl. intercom

Source: ©ASE GmbH

The OCR technology of the video gates enables the recognition of the respective vehicle data (UIC wagon number and vehicle/trailer license plate) as well as the characteristic signs and codes of the loading units such as container numbers (BIC/ILU), dangerous goods numbers (ADR/UN) or RFID tags. *

At the cockpit workstation in the terminal building, all data merges via XML interfaces in the operations control system, thus ensuring optimized and faster handling processes.

We would like to thank DB Netz AG for their confidence and are pleased to support the automation processes at the MegaHub Lehrte with our NUMBER*Check* video gates.

You can also find more information in the DB video "MegaHub Lehrte: Germany's most modern freight hub" at:
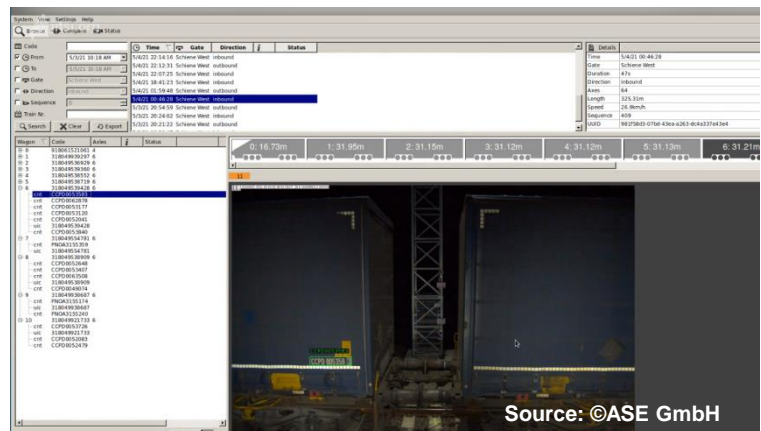https://youtu.be/bzAg4ZMfcwc

*Abbreviations:

OCR: Optical Character Recognition.

UIC: 12-digit identification number of freight and passenger train cars. Regulation by the International Union of Railways (Union internationale des chemins de fer).

BIC/ILU code: Owner identification of all loading units. The BIC code is used worldwide for freight containers, the ILU code for European loading units.

ADR: European Agreement concerning the International Carriage of Dangerous Goods. It contains regulations for road transport with regard to packaging, load securing and labeling.

UN: Identification number for all hazardous substances

RFID: Radio Frequency Identification (identification technology consisting of transmitter and receiver (tags/transponders).

XML: eXtensible Markup Language (data format for describing, storing and exchanging data).

Latest NumberFinder Version 3.35 for our OCR Gates "NUMBER*Check*"

The latest NumberFinder version 3.35 is now available. The minor releases .35 include the removal of bug fixes and optimizations in the areas of:

- **Vehicle separation via 2D laser sensor**
- **Shunting movements of trucks and trains**
- **ANPR allocation**
- **RFID integration**
- **Image quality stitching**

Source: ©ASE GmbH

Source: ©ASE GmbH

We are also pleased to announce the implementation of our own CNT algorithm for container detection.

Our in-house development enables a significantly high image quality and detection rate. At the same time, we are able to implement customer-specific adaptations without any problems.

Minor releases are free of charge for our maintenance customers and will be installed automatically during October.

Is your current NumberFinder version older than 3.0 ? Then contact us and benefit from numerous improvements. We will be happy to provide you with an offer for a major release , or update to our latest version.

Software function "Stitching" for Rail & Truck Gates

With the stitching* function, complete trains can be analyzed quickly and comfortable. The train formation is displayed on the screen in small format and can be moved or enlarged as desired with a mouse click. Just click on a specific wagon to display it in large format to view details (numbers, danger signs, damage, position of brake levers, etc.).

Would you like to upgrade your **NUMBER***Check* system with this function and benefit from the convenient image analysis? The corresponding software license can be installed or activated for you at any time.

You have the option of choosing between our **SaaS model** (user fees with a term of 48 months followed by automatic transfer of ownership) or an immediate purchase option.

Source: ©ASE GmbH

Source: ©ASE GmbH

*Stitching

In image processing, stitching refers to the creation of a large photograph from various smaller individual shots that show (usually overlapping) sections of the subject.

Stitching is used when a single shot would not capture the desired angle of view, i.e. as a substitute for a wide-angle lens or even to create a 360° panorama, or to achieve a greater resolution (pixel count) for large-format images than would be possible with a single shot due to the camera's limited resolution.

Source: Wikipedia

Source: ©ASE GmbH

Source: ©ASE GmbH

Click to read more

.. and another hint from the CCTV - world:

It is extremely easy to integrate live video data from web or analog cameras into the SIMATIC PCS 7 operator system using VisorX/NG video technology products from ASE GmbH. The VisorX/NG video server is configured with ASE software. Otherwise, no additional settings are necessary.

The VisorX/NG video server works in real time, i.e. it is able to record up to 25 images per second for each video channel. Image recording can be carried out time-based, event-controlled or also permanently.

The compatibility of our Visor X/NG software is tested and certified annually by Siemens. A current certificate for the SIMATIC PCS 7 V9.1 version was issued as of August 2021.

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: vertrieb@ase-gmbh.eu

Yours Eric Steck
-CEO-