DB InfraGO reads over 98% of wagon numbers automatically, at normal line speed.

Visy has delivered rail OCR portals to DB InfraGO, formerly DB Netz, since 2018. A key requirement was very high-quality images of every passing wagon. Today, Visy portals across Germany read wagon numbers at over 98% and capture images that are used in repair assessments.

About DB InfraGO

DB InfraGO AG is the rail infrastructure company of Deutsche Bahn AG. It was formed in 2024 from DB Netz and DB Station&Service. It runs a rail network of about 33,300 km, Europe's largest, and creates the conditions for safe, low-emission and sustainable mobility in Germany and Europe.

From one site to seven

DB Netz chose Visy as its OCR and Train Gate supplier in 2018. The first site went live in Nuremberg. Once it had met every test and performance criterion, Visy became the preferred OCR provider, and Visy Train Gate was rolled out to six more locations: Hagen, Maschen, Mannheim, Munich, Seddin and Seelze. More than 12 Visy rail OCR portals now run across these sites.

DB InfraGO

CUSTOMER SINCE
2018

LOCATIONS
7 in Germany

PORTALS
12+

READ RATE
Over 98%

VISY SYSTEMS
Rail OCR portals, Visy Train Gate, VisyXMLGate, Visy Measurement Portals

LOCAL PARTNER
LMT GmbH

Real-time capture lets trains pass at normal operating speed.

More wagons through every site

Every month, up to 35,000 wagons pass through each location, carrying cargo worth hundreds of millions of euros. Because Visy rail OCR portals capture data in real time, trains run through at their normal operating speed, which raises throughput capacity at each site. Shortly after going live with Visy Train Gate, Nuremberg set a throughput record of 38,000 wagons.

Wagon images as a service for DB Cargo

DB InfraGO offers the images of passing wagons to its customers as a service. One of them is DB Cargo, Deutsche Bahn's rail freight company. DB Cargo uses the images to digitise its maintenance processes, above all to identify damage on its wagons.



Three challenges before Visy Train Gate

- Wagon numbers are often worn or partly covered, which makes them hard for people to verify.
- Damage assessment was slow, costly and risky: a clerk walked the tracks to inspect each wagon in person.
- A standard OCR system could not meet each site's needs. Portal placement was limited, and the terrain made trains change speed.

How Visy solved them

Visy rail OCR portals read wagon numbers at over 98% at every location, using Visy's deep neural network (DNN) OCR engine. For wagons whose numbers are covered, Visy added RFID: transponders on the wagons allow automated wagon verification.

Clerks inspect wagons from the office while the trains keep moving.



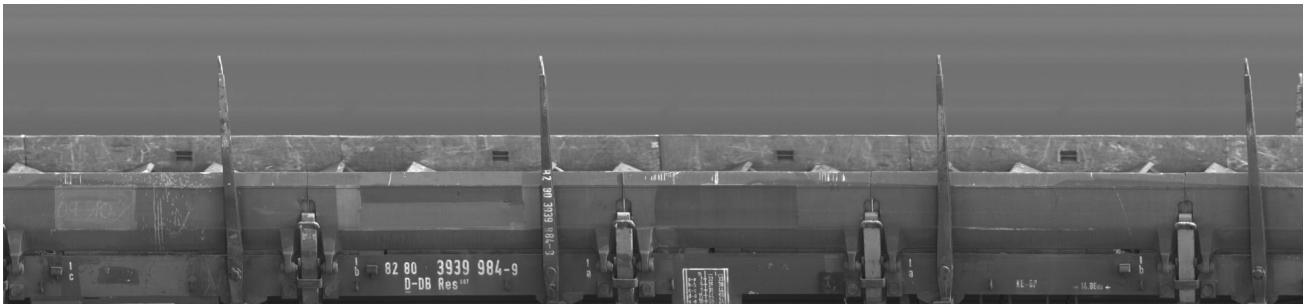
An operator reviewing a train's images in Visy software.

Up to nine cameras per portal

Each Visy rail OCR portal carries up to nine ultra-high-resolution cameras. They provide the images for OCR and let clerks carry out damage inspection from a remote location, so cargo keeps moving and trains no longer stop for inspection. From the office, clerks confirm that a wagon is safe to travel or flag it for repair. Each clerk can now inspect far more wagons per day than with physical inspection.

Speed measurement keeps every read sharp

At some sites the terrain makes trains change speed. Visy Measurement Portals (VMP) handle this: a laser scanner measures train speed in real time, and the cameras and lights adjust to it. Drivers run the train as they normally would, and the portal adapts its imaging and OCR to the train's movement.



A wagon captured by a Visy linescan camera.

Wagon data goes straight into DB InfraGO's own system.

Direct data exchange with InfraView

The OCR system works with third-party systems. VisyXMLGate automatically shares wagon and cargo data with DB InfraGO's InfraView system, so all Visy data appears directly in DB InfraGO's internal user interface. Staff keep working in their own system, with their own processes and feature set, and never need to switch to a third-party screen. Behind the scenes, Visy keeps that system up to date.

Local support from LMT GmbH

Visy's German partner, LMT GmbH, played a key role in delivering the system and provides aftermarket support and maintenance. With a team in Germany, LMT can respond to any DB InfraGO site within a strict SLA. The engineers who deployed the system also support it, so anything that could affect performance is resolved fast. Together, Visy and LMT keep system uptime high, so DB InfraGO keeps cargo moving and meets its performance targets.

About Visy

Since 1994, Visy has built systems that capture cargo and vehicle data and control access at ports, terminals, rail yards and industrial sites. Every asset that enters or leaves a facility, by road, rail or sea, can be identified and managed with Visy technology. Today, Visy systems handle more than 6,000,000 automation tasks a day in over 30 countries.

Learn more at visy.fi

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