Camco is a pioneer and reference in the automation of intermodal and container terminals. Camco’s new RMG-CAM OCR camera has been designed to increase efficiency in railside and landside operations. The new RMG-CAM camera system automatically captures, identifies and registers containers during handling by Rail Mounted Gantry Cranes (RMG cranes).

Camco’s RMG-CAM captures key OCR data and images without disrupting crane operations: there is no impact on the container’s flight path nor the crane’s uptime. Seamless TOS integration ensures that the data is instantly sent to the TOS, ultimately improving operational efficiency. OCR read rates are high, keeping operator exception jobs to a minimum. Camco’s RMG-CAM crane OCR solution is highly accurate and engineered for reliability, high availability and easy maintenance. The system’s guaranteed longevity results in short ROI times.

Camco’s RMG-CAM enables increased terminal efficiency and safety, while reducing operating costs, human errors, and time per transaction.
**RMG crane-mounted OCR system**

Enhanced safety under crane as RMG-CAM automatically identifies and registers containers during crane handling

Camco’s RMG-CAM system supports crane OCR for day and night operations on Rail Mounted Gantry cranes. This intelligent camera captures high resolution images of the container’s short sides during handling, without interrupting normal crane operations. Data formerly registered manually by tallymen under the crane are now automatically captured, greatly enhancing safety.

A typical setup is based on a pair of high-end industrial high-speed cameras fixed onto the RMG crane legs. With unobstructed views towards the container’s flight path, the cameras will capture images of each passing container’s front and rear. These images are immediately processed on the cameras and image analysis results are sent to the TOS for further use. Integration with the crane control system ensures correct triggering.

To support 24/7 operations in all weather conditions, the cameras are equipped with built-in LED light projectors which produce optimal on-demand light conditions.

**Built-in image analysis software**

Each RMG-CAM runs a powerful integrated CPU for instant image analysis and data processing

Every single Camco OCR camera system is equipped with a powerful CPU enabling integrated and high-speed image analysis. Dedicated software engines, based on convolutional neural networks and OCR technology, immediately start processing after image acquisition.

Processed container data include the container ID, ISO code, seal presence, door direction and dangerous goods labels.

All standard container sizes are supported (20/40/45ft), as each camera uses a combination of two state of the art 12MP global shutter cameras, designed to capture fast moving objects, traveling at high speed.

The position of the Camco RMG-CAM cameras depends on the terminal’s specific needs, the RMG crane design and type of operations.

Camco RMG-CAM automatically detects and adapts to the container’s dimensions

**Camco Crane Operator Application for swift exception handling**

Operators can use the Camco Crane Operator Application for further exception handling. Processing OCR correction jobs is easy with this intuitive web-based application, where operators can validate data based on high-resolution container images. Exceptions are defined per customer. Examples are incorrect or missing container numbers, exceptions relating to seal presence and dangerous goods labels.

As the number of exceptions is limited, a single operator can be assigned to multiple cranes.
Truck OCR portals capture container data and images of in- and outbound traffic.

Rail OCR portal for automated inspection, identification and inventory of railcars and containers.

Driver kiosks at the truck gates validate data and present drop & pick-up location.

RMG-CAM Crane OCR to identify containers during RMG crane operations.

BoxCatcher STS Crane OCR to identify containers during loading & discharge.

Transfer point kiosks assist truckers at the container interchange zone.

Pre-gate kiosks allow checks at terminal entry and exit.

Micro Location Technology under STS crane for alignment and auto-handover of containers.

Camco Technologies automates the hand-over process of containers using visual-assisted & micro location technologies.

WE AUTOMATE, YOU OPERATE