ContainerGard

Read the container number and you know where it is!

Automatic container number reading forms the basis for container identification in a number of different container tracking and management applications at locations around the globe.

The TDS ACNR System

The Transport Data Systems Automatic Container Number Recognition (ACNR) System provides a quick and efficient method for obtaining a machine readable container number from a high resolution image of the rear of a container. The TDS ACNR is an effective container number recognition solution catered for modern ports and terminal industries throughout the world. It automatically recognizes and records container ID numbers and ISO codes of the containers, both at rest and during movement. It facilitates effective container management and operations at gate, yard, and loading and unloading zones for quay cranes and spreaders for modern ports and terminals. The TDS ACNR has been developed to comply with the ISO 6346 international standard for assigning unique codes to freight containers, commonly known as BIC codes.

This software is in operation in a number of locations in the USA and abroad. TDS developed the application in 2007 and has been continually improving its performance using live data from actual operating collection lanes. It has yielded a container code recognition system with excellent performance, both in accuracy and detection speed. With its companion strobed LED illuminator, the unit is capable of providing 24 hour operation. The system can also optionally read country code and container type codes.

In a typical stand alone operation the ACNR server processes the images from a specified input directory, performs the ACNR function, and places the resulting ASCII file with the container number in a specified output directory. The flexible design allows performance increases to be achieved through the addition of multiple servers. The network interface allows for easy integration with other security devices.

The TDS ACNR can optionally integrate with the TDS License Plate Recognition system, the TDS USDOT Number Recognition System and the TDS Driver Camera System for maximum access control and security management.
Basic System Elements

- Camera Assembly (5 Megapixel)
- Strobed LED Illuminator
- ACNR Processor

Optional Elements

- Trigger
- ALPR System
- USDOT Reader
- Driver Camera
- Overview Camera
- Plaza Server

Software

- Linux Operating System
- Adaptive Camera Control
- Optical Character Recognition
- System Status
- Host Interface
- Alignment Tool

Camera Assembly

The TDS camera systems use digital cameras from Point Grey. They are enclosed in sealed enclosures for operations in rugged environments. They include a fiber extender system to allow the cameras to be located up to 1500 feet from the image processor. They are equipped with zoom lenses with variable irises that can be controlled and focused from a remote location.

Illuminator

The TDS LED illuminator products provide pulsed flash illumination to enable photo capture during low light conditions. The illuminator strobe is digitally controlled with the illuminator only being activated during the exposure period. This results in a significantly lower duty cycle which results in a low average power consumption and an operational lifecycle of 10+ years.

Optical Character Recognition

The TDS OCR engine leverages the high quality of the images provided by the TDS imaging system to quickly and accurately locate the plate in the image and deliver outstanding read rates. The TDS reader can be “trained” to a single plate style or to multiple styles to maximize the level of automation and reduce manual labor costs.

Plaza Server

The TDS plaza/host server is designed to interface with the TDS image capture systems and provide a central location for storing and processing images and transactions. The design is scalable and can be implemented at the plaza or host level in a system containing multiple sites. Special application software is provided to optimize the OCR process when using front and rear cameras and to compress the images prior to transfer to the next higher level. The plaza server runs a database for image and violation storage. It include a web server and associated web site for viewing locally stored transactions. It can also provide for querying national, state and local databases for containers of interest.

Contact Info

Dick Hasselbring
VP, Business Development
619 295-5050
www.transportdatasystems.com