

SUCCESS STORY

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Thai Oil and Gas Company Benefits From Professional Video Surveillance With Basler IP Cameras

Customer

- Customer: PTT Public Company
- Location: Province Pathum Thani, Thailand
- Industry: Oil/Gas
- Year of Realization: 2011

Application

The PTT Public Company is a Thai company involved in oil and gas exploration and production as well as gasoline retail business. PTT owns an extensive network of submarine gas pipelines and LPG terminals. In the last two years they have installed a video monitoring prototype of a mother station where natural gas vehicle filling stations are located. The goal of this project is to reduce internal and external theft by use



Natural Gas Containers

of evidentiary video when a theft occurs. Another goal of the video system is to identify vehicles and their containers in order to help facilitate organization and management of the mother station. This requirement can be met by an IP camera solution where barcodes attached to vehicles and containers are automatically recognized within the video.

Solution and Benefits

To assist with clear identification there is a two-dimensional barcode called a Data Matrix code, attached to every natural gas vehicle. The company uses NI LabVIEW software to read the barcodes. By also using an add-on NI Vision Development module, data matrix decoding, among other image processing requirements, can easily be done using every LabVIEW implementation.

Two prerequisites are critical for clear identification of the barcode:

- 1) The code must be completely contained to the image field of the IP camera so that it can be read automatically by standard software routines. Only a single image is required for proper recognition, allowing for barcode capture when the object is stopped or in motion.
- 2) The target must be very well lit so the software is able to recognize the barcode. The barcode is then imaged on the sensor plane brightly and with high contrast.

Pravee Kruachottikul, Managing Director of Solimac Automation Co. Ltd, Basler's distributor in Thailand, stresses: "For our customer the price as well as the interface to the given video management system are very important criteria. The chosen IP cameras from Basler convince the customer not only with their price/performance ratio, they also meet the specifications of the customer to be able to work with the software already used via a suitable interface."

Image Quality

Excellent image quality was one of the main requirements for this project. Proper barcode identification will provide clear evidence in the event of a theft. This is why PTT Public Company favors Basler's color IP cameras. The highest quality CCD sensors used by Basler IP Cameras provide the required excellent image quality, even under difficult lighting conditions, for clear identification of necessary details and facial characteristics.

Easy Integration

The cameras can be quickly and easily integrated into the video management system used by PTT Public Company. The required configuration can be achieved in only a few minutes. In this application the images are transmitted using MJPEG compression. However, if necessary, the compression can be easily changed to H.264 to save bandwidth consumption and storage requirements; allowing the evidence to be stored for a longer period of time.

Day/Night Functionality

In order to provide surveillance in sensitive areas during night time and in low light conditions, the camera must have true day/night functionality. Basler cameras with this day/night functionality have a retractable IR cut filter that can move in front of, or away from the sensor automatically in specific lighting conditions. During the day and in well lit environments the IR filter is in front of the sensor allowing for correct and true color representation as well as promoting sensor cooling. During night time and in low light conditions the filter is moved away from the sensor to produce high quality black and white images as well as acceptance of infrared lighting.

Weatherproof Outdoor Housings

When cameras are placed outdoors, a robust weatherproof housing is required for proper operation in varying weather conditions.

The Basler cameras secure the facility, deter from internal and external theft and help automatically control vehicles to help improve process flow.

Technologies Used

- Approximately 600 BIP2-640c-dn IP Fixed Box Cameras, 20-25 cameras per station
- Fujinon YV10x5HR4A-SA2L Lenses
- Barcode identification with NI LabVIEW software
- Ethernet network
- PC with image processing software

More Information

www.pttict.com

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