High-Resolution Protects High-Tech Steel Mill

Posco-Malaysia Chooses Arecont Vision Megapixel Cameras for Surveillance System

Posco-Malaysia, an electro-galvanizing steel mill, sought a security system that incorporated IP-based network connectivity, enterprise-wide coverage and superior image quality.

CUSTOMER

Posco-Malaysia Sdn., Bhd. is the first electro-galvanizing steel mill in Malaysia, operated by the world's fourth largest steelmaker, Pohang Iron & Steel Company (Posco) of Korea. A pioneer in electro-galvanizing steel technology in Malaysia, the company built the new Posco-Malyasia factory in Pulau Indah, Klang, an island off the west coast of Selangor, Malaysia. It represents a significant development in the Malaysian steel industry, whose growth is driven by the international export market and by expansion of Malaysia's construction and electronics industries.

CHALLENGE

With Posco's closed-circuit television (CCTV) systems transitioning from analog and moving onto a network platform, the high-tech environment of the new steel mill sought a security system that incorporated IP-based network connectivity, enterprise-wide coverage and superior image quality. They also wanted a significant upgrade in system functionality while keeping the system cost low.

MEGAPIXEL SOLUTION

Their new, state-of-the-art system uses a combination of 1.3, 2 and 3 megapixel cameras, as well as 8 megapixel panoramic cameras, all provided by Arecont Vision. Arecont Vision's camera models feature advanced capabilities such as day/night viewing and use H.264 video compression technology to minimize system needs related to bandwidth and storage.

The video surveillance system at the Posco-Malaysia steel factory was installed by Sensorlink Sdn. Bhd., based in Kuala Lumpur, Malaysia, a supplier and solutions provider of advanced surveillance solutions for various industries. The system was designed by Sensor-link and was installed during construction by a Sensorlink business partner. The cameras are monitored locally using the Pelco Endura enterprise-class network video management system, which is designed as an end-to-end system incorporating high-definition video.

One camera model used at Posco-Malaysia is the Arecont Vision Model AV1305, a 1.3 megapixel H.264 camera providing 1280x1024-pixel images at 32 frames per second. Features include a 1/2" CMOS sensor and Arecont Vision's MegaVideo® image processing at 80 billion operations per second. For high-resolution viewing, 24 hours a day, Posco-Malaysia uses the day/night version of the Arecont Vision Model AV2105, a 2 megapixel H.264 IP cam-

AV3105 3 Megapixel IP Camera
Key Features
- 2048(H)x1536 (V)
- 15 fps @ 2048(H)x1536 (V)
- H.264 (MPEG4, Part 10), Motion JPEG
- Color: 0.2 Lux @ F1.4
- Forensic Zooming
- Motion detection
- Motorized IR cut filter (DN Version)

Posco-Malaysia uses various Arecont Vision megapixel camera models to ensure their security system provides maximum functuality.

era that provides 24 frames-per-second of 1600x1200-pixel video using a 1/2" CMOS sensor. The day/night version has a motorized infrared (IR) cut filter.

For even higher-resolution needs, Posco-Malaysia uses the 3 megapixel model – Arecont Vision's AV3105 – to provide 2048x1536-pixel images at 15 frames per second. The Arecont Vision cameras all use H.264 (MPEG 4, Part 10) compression to minimize bandwidth and storage requirements while maintaining real-time image resolution. Capabilities include motion detection, image cropping, region-of-interest viewing and forensic zooming.

For a broader, high-resolution view, Posco-Malaysia uses the Arecont Vision Model AV8185, an 8 megapixel, 180-degree-view SurroundVideo® panoramic unit that uses four 2 megapixel sensors. The AV8185 is enclosed in a separate IP66 6-inch dome that can be wall-mounted or pendant-mounted. It incorporates an IP66-rated environmental chassis that needs no external housing.

MEGAPIXEL BENEFIT

As part of the security system at the Posco-Malaysia steel factory, megapixel cameras provide maximum functionality while helping to lower system costs. Video surveillance at the new steel factory uses megapixel cameras to provide detailed video images and the ability to zoom in to view regions of interest live or on recorded video. The playback video is critical for identifying suspect activity and liability claims.

"The Posco-Malaysia installation demonstrates the importance of matching the customer's application and expectation of image quality to the right megapixel camera," said Becky Zhou, Asia-Pacific Sales Director, Arecont Vision. "We are pleased that the system is running smoothly, and that our megapixel camera solutions' performance has exceeded the customer's needs."

In every case, the integrators for Posco-Malaysia chose the exact right camera – ranging from 1.3 megapixels to the 8 megapixel panoramic camera – to match the expectations of the application. For example, the 8 megapixel camera can be used to view large areas while capturing megapixel detail, providing up to 6400x1200-pixel images at 5.5 fps, or it can be set for lower resolutions at higher frame speeds, such as 1600x1200-pixel images at 22 fps or 800x600-pixel images at 88 fps. The camera's panoramic view can be used in lieu of up to 24 analog cameras.

The use of H.264 compression lowers requirements for bandwidth and storage and simplifies integration of higher-definition megapixel video. The application at Posco-Malaysia also demonstrates that megapixel cameras can dramatically decrease costs related to other elements of a system, such as fewer software licenses, less cabling, fewer lenses, and a decrease in the man-hours needed to bring it all together.

"A major benefit of Arecont Vision cameras is their reliability," said Terrence Ham, Sales Engineer (Systems Division) of Sensorlink, who also praised the superior image quality. "The use of megapixel cameras versus conventional imaging devices provides remarkable opportunities to realize a return on investment (ROI). The combination of the overall increased resolution and forensic capability using megapixel cameras and the lower system costs was irresistible for Posco-Malaysia."

Arecont Vision

megapixel technology...
beyond imagination