

SECURITY

CCTV

scene.

The answer: Install a CCTV camera with wide dynamic range.

This was the problem posed to Cohu Electronics, San Diego, and Cohu's solution. "The tollbooth is aligned with the rising and setting sun," says Ronn Rohe, Cohu's marketing communications specialist.

"The originally installed cameras 'bloomed out' and couldn't read the license plates. The modified Cohu DSPX-2000 camera is able to capture the license plate image of a speeding car, even when bright morning or afternoon sunlight is in the image," he says.

How It Works

The DSPX-2000 acquires images in two channels; each with different properties, and merges them into one image. It VLSI (Very Large Scale Integration) digital video processor chip emulates the human eye's ability to perceive detail in high contrast lighting environments, Rohe explains.

Another challenging situation Cohu solved, Rohe says, is safely monitoring spent nuclear fuel rods within a radio active environment.

The solution: CCTV camera in radiation-hardened housing with wireless transmission and control system.

Three components were integrated into a video surveillance system that actually looks around nuclear fuel rods, rather than just from the top in traditional systems, Rohe explains.

A Cohu color CCTV camera, pan and tilt, and microwave transmitter were integrated into a specially-designed radiation hardened housing that is lowered from a crane into the storage area. The signal is transmitted to a control room where personnel can safely view and analyze the waste. The camera system can be raised and set away from the waste and so prolonging its life. ■

For More Information

Cohu Circle 233
Silent Witness Circle 234

Selected Other Extreme Camera Providers

Asian World Circle 235
B.E. Meyers & Co. Circle 236
Carol Products Circle 237
ITT Night Vision Circle 238
Scopus Circle 239

Camera Lenses Can Vary in Cost from \$25 to \$100,000

How are the lenses in your CCTV cameras?

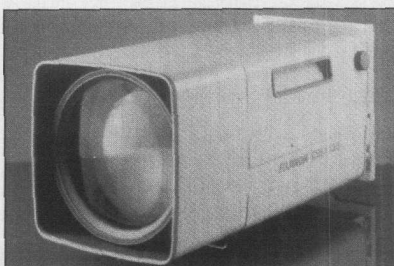
"Why have a camera if you can't ID the person?" asks Dave Waddell, marketing manager, Fujinon Inc., Wayne, N.J.

Waddell asks the question because Fujinon's Broadcast & Communications Products Division produces lenses that run the gamut from low cost \$25 and \$30 to high priced \$100,000. The security market falls towards the low end he says giving reason to his question: "Why have a camera if you can't ID the person?"

Security Market Price Driven

"The largest portion of the security market is pretty much a commodity market based on bottom price," he says. And that is where the issue of identifying a person comes into play. Government agencies and the police opt for the high end to get the absolute best he adds.

Zoom lenses reflect the higher market. The security market's swing to



Fujinon's C66X13.5 C-mount lens is for surveillance applications requiring rapid zooming from wide angle to very long telephoto and exceptional low-light situations. It has a broad focal length range of 13.5 mm to 900 mm.

color from black and white cameras during the past two or three years will continue Waddell predicts.

Most of the high end lenses have been developed for color cameras to be true to the color and prevent distortion. "Casinos," Waddell says, "are concerned about detail and need a better quality lenses. You need good definition and high quality imaging to read a license plate."

With a good lens you get a much sharper picture with higher resolution and better quality with less flare Waddell says. "Lenses are continually improving driven by the (consumer) camera market," he says. "Cameras are color correcting today to avoid color 'fringing' (a blue halo). You did not have this before."

What Makes a Good Lens

"What makes a good lens begins with the glass material itself," he explains. "The precision of the grinding and



Fujinon has introduced the S12X5BRM, a low cost wide angle, ENG lens for 1/2-inch format color cameras. It has an extremely wide angle of 65°, and a focal length of 5 mm to 60 mm.

multi-layered coating of the lens are other factors."

Different glass material is designed for different purposes to respond to different light spectrums Waddell says. At

Tell Us About Your CCTV System's Positive Results

Has your CCTV system worked for you? Has your CCTV prevented a security breach? Has your CCTV "caught" a perpetrator? Has your CCTV helped in a life safety situation?

If so, send us your story. SECURITY Magazine will publish good examples of a successful CCTV system application.

As an incentive SECURITY will award a LifeMate "Home Inventory" book to the person submitting the entry selected for the month.

Be sure to include your name, address and telephone number. Send your entry to CCTV System Contest, SECURITY Magazine, 1350 E. Touhy Ave., Des Plaines, IL 60018. ■

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the lower end, the lenses are plastic which are not good as glass he adds.

At the market high end, Fujinon offers its C66X13.5 C-mount lens for surveillance applications that require rapid zooming from wide angle to very long telephoto and exceptional low-light performance.

At the market low-cost end, Fujinon has introduced the S12X5BRM wide angle, ENG lens for 1/2-inch format color cameras. It has an extremely wide angle of 65°.

Digital Zoom Lenses to Evolve

As cameras become more digital, so will the lenses evolve to digital zoom says David Craig, technical services manager, International Space Optics, S.A., Rainbow CCTV Lenses, Huntington Beach, Calif.

"Lenses need to get smaller," he says. "Technology is improving to give good low light performance and higher image quality."

"As high advanced optic systems



Rainbow CCTV Lenses new 10X zoom ratio version in its ECO series of "ECO"nomical zoom lenses uses a detachable iris cable for camera connection.

apply to the 35 mm camera, so it will to us," says Craig. The consumer market comes first and then we follow. It's a case of taking technology and streamlining it for mass production."

That new technology includes aspherical type lenses with corner sharpness — where the corner of the picture is just as sharp as the central portion Craig adds. The ability to see in low light is another such advancement. But they do drive up the cost.

The U.S. is a hot driven market compared with Europe where they pay the price for quality, Craig says. "The mom and pop liquor stores are looking for the best price, while in Europe they are looking for quality. Las Vegas hotels

and casinos buy hundreds of cameras at \$1,000 to \$1,200 apiece. But in Europe (customers) and the government (U.S.) will use one costing \$5,000."

New from Rainbow is the 10X zoom ratio version in its ECO series of "ECO"nomical zoom lenses. In the 1/2-in. format it has a 8.5-51 mm focal length in C-mount. The 1/3-in. format has a 6.5-65 mm focal length in CS-mount.

So, who DOES buy those \$100,000 lenses? "They are going into oil fields in the far East to prevent terrorists from attacking," Waddell answers. "And longer lenses are being used for missile and aircraft tracking."

For More Information

Fujinon Circle 240
International Space Optics
Rainbow CCTV Lenses Circle 241

Selected Other Lens Providers

Elmo Circle 242
Ikegami Circle 243
Panasonic Circle 244
Pentax Circle 245
Samsung Circle 246
Vicon Circle 247

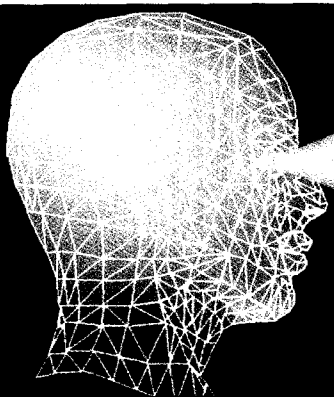
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