



two different areas or with a tele lens and a wide-angle lens, for example, to allow an entire lobby and its entryway to be monitored at the same time. The **Day&Night** version is fitted with a color module and a black-and-white module, and it switches automatically between the two depending on the brightness of the scene – fully electronically and without moving parts (always a potential point of failure).

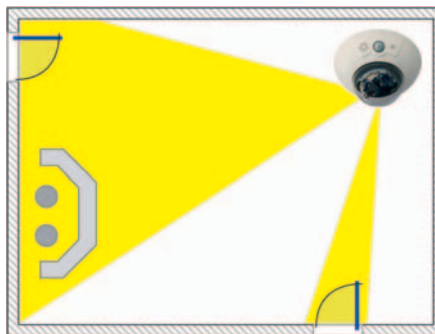
In applications where design is a key factor, the new camera technology, in combination with megapixel sensors, greatly reduces the number of cameras necessary.

With its resolution of **1280 x 960 pixels** and improved color system, the D10 even surpasses the legendary image quality and color of the M1. The D10 also features image cropping as well as pan and zoom capabilities, allowing users to select narrow skyline-format images (e.g., 1000 x 250 pixels).

D10: Dual-FixDome

First "landed" in Essen at Security 2004, the new MOBOTIX "D" series of cameras is scheduled to go into production in January 2005. The camera combines elegant lines in a compact form with the same functions as the tried-and-tested M10, including the same megapixel resolution. The camera will initially be available for indoor use, with the outdoor version of the same design in weatherproof IP-65 case available as of April 2005.

Since MOBOTIX is well-known for its innovations, the D10 naturally also includes a number of new features. First and foremost, this camera is a **dual unit** fitted with two camera modules that can be positioned independently – either with two identical lenses to allow simultaneous observation of



Technical data: D10Di

- Hardware resolution: per 1/2" (1280 x 960) CMOS color or black and white; free software format with zoom/pan
- Frame/data rate in MxPEG video streaming (medium quality, 50% JPEG) 25 f/s in CIF (320 x 240) at approx. 1Mbps
- Sensitivity: Daylight lens (8mm/2.0) 1 lux at 1/60 sec – 0.05 lux at 1 sec
- Sensitivity: Night/IR lens (8mm/2.0) 0.2 lux at 1/60 sec – 0.02 lux at 1 sec
- Internal image memory (64MB) for up to:
 - 4,000 event images (JPEG CIF)
 - 8 min. video/audio at 25f/s (MxPEG CIF)
 - 11GB/day on Linux/Windows server
- Dimensions: 202mm (diam.) x 108mm

Thanks to the integrated high-performance optics and the 4x zoom, simply connect the D10D with two camera modules to an ISDN line or network and it is ready to go. Complete with audio, long-term recording, playback and multiview, the D10 costs **EUR 1499** (not including VAT).

Noise-Free Night Shots

The high-sensitivity, low-noise D10 in **night-vision** mode with exposure times of up to one second can even deliver color images at night, achieving a sensitivity rating of 0.02 lux.

24 Images Per Second

The new MOBOTIX megapixel cameras deliver 24 images per second in CIF mode. In the optional MxPEG video streaming mode, the D10-Secure can also transmit and record audio with its highly sensitive in-built microphone.

High Security At Coventry Airport

In May 2004, the first 26 MOBOTIX M10D Day&Night cameras were installed at Coventry's new airport in central England for video surveillance purposes. These "smart" cameras autonomously handle motion detection, long-term recording and



parameter-driven playback, and their images are displayed on just one monitor – all without the need for additional video management software.

Digital Quality At DaimlerChrysler

DaimlerChrysler wanted image quality comparable to that of a digital camera for its web site selling pre-owned company cars. The MOBOTIX M10 megapixel cameras fulfill this requirement easily and fully automatically. Impressive images are available on the mercedes-benz, autoscout24 and www.mobile.de web sites.



References

- MOBOTIX in the Antarctic
 - Cash desk surveillance in banks (UJV certified)
 - Dual camera in an ATM (cash machine)
 - Station platform surveillance for Deutsche Bahn
 - MAN Logistics chooses MOBOTIX
 - Remote maintenance of sewage plants
 - Gas station monitoring
 - Building security at the Max Planck Institute
- See http://www.mobotix.com/mx_english/mx_app_berichte.htm

MxPEG-Viewer as Windows application with alarm list



Roll Sound: Audio In Browsers

With software version 2.03, **live video** with lip-synchronized audio (CIF: 25f/s) can be viewed in web browsers (Explorer). The necessary ActiveX plug-in (80KB) is loaded automatically from the camera. Since MOBOTIX provides audio channel support at frame rates as low as 1f/s, audio transmission also works over DSL and the Internet.

If the camera is also connected to an ISDN line, voice communication via phone is possible – worldwide. As always, the latest software can be downloaded **free of charge** from the MOBOTIX web site.

MxPEG Integration Worldwide

Many manufacturers of major video management systems have already integrated MxPEG or are currently doing so. These systems are now capable of recording and playing back live streams, complete with audio.

Unlike MPEG, cameras that support MxPEG are capable of processing **simultaneous** requests with variable frame rates, including audio, as well as motion JPEG or individual JPEG images. Even accessing a PDA using a PocketPC browser is possible without the need for additional software.

Demo CD

The new demo CD (1/04) contains a number of MxPEG sample clips as well as the MxPEG viewer. The samples offer an impressive demonstration of the image quality of MOBOTIX cameras and of the strengths of MxPEG encoding with the lip-synchronized audio channel. The free CD also includes a local copy of the MOBOTIX web site and an entire suite of documentation.

MxPEG Viewer With Layout Editor

The MxPEG viewer has “grown up” and thus provides an excellent complement to the MOBOTIX camera browser functionality. The viewer uses around 900KB of memory (.exe) and can be downloaded for free from the MOBOTIX web site. It supports JPEG, M-JPEG and MxPEG **streaming with audio**. In addition, video streams from cameras connected to the Internet can be viewed and recorded via a JPEG URL.

The number of camera images that can be displayed is limited only by the performance of the computer on which they are viewed and by the size of the monitor. An ordinary PC (P-IV/2.8GHz) can display around 600f/s in CIF format – sufficient for 24 live cameras running at 25f/s, including audio.

The new version of the viewer now includes a layout editor, which can be used to define 10 layouts with camera images in five different sizes. In plan view, JPEG images can be loaded as background for each layout and the camera images can be positioned freely within that layout in various sizes. Alarms are indicated visually or with a signal tone. When the mouse is moved over a camera view, the live image is enlarged.

The new alarm list function permits events and live snapshots to be saved on the local PC. In addition, the MxPEG viewer now allows direct playback and image searches for camera events from a file server. Pan and tilt heads from a number of manufacturers can also be integrated with mouse or joystick-based control systems.

File Server Versus DVR

The decentralized recording technology first presented by MOBOTIX in 2001 has key advantages over a centralized DVR solution, since each MOBOTIX camera stores and manages its image data independently on a PC or server system. With MOBOTIX system, there is no need for a central evaluation and management unit. This decentralized structure means that a single PC is sufficient for the long-term storage of around 30 cameras, each operating at 25f/s (CIF, MxPEG). Thus, this technology is superior to the majority of DVRs that are only capable of storing concurrent images from just a few live cameras running at high frame rates.

In addition, the camera's integrated ring buffer (64MB) helps keep the network load as low as possible and is capable of bridging even long network outages without losing images.

