Volume 6
April 2010
GIT
EMEA Edition

SECURITY



COVER: Panasonic - iPRO

Perimeter Protection

Camera Tests

Security for Retail Business

Fire Protection

Access Control

Machine and System Safety

Airport - Safety + Security







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Access to Video

In my last editor's note I mentioned that the focus for new products has shifted to new IP video products, and we see more and more products coming up that help security managers modernize their equipment and to migrate to IP. Since some years there have also been discussions in the industry, to what extent safety and security managers can benefit in the future from integrated solutions that use access control elements and combine them with video data, alarm signals and also fire alarms.

The move to IP supports such solutions and makes them possible from a technical point of view. I know that there are already solutions on the market that use more or less an upsidedown approach. Modern building management systems can integrate all the security elements mentioned above to a total solution. These big solutions come from companies that offer building technology and manage to integrate disciplines such as security, building automation, fire safety, lighting and power management. The advantage these companies have, is that they know how to effectively coordinate the disciplines and make buildings safer and more efficient. This approach is fine if you plan a security system from scratch and if you prefer proprietary solutions. If you want to mix equipment from different vendors and if you want to integrate existing equipment into one system you do have less options. But there are a growing number of tools that can help you with this.

Software companies that have concentrated in the past on integrating only video data into their systems do now offer management tools that are also able to process alarm signals and data from access control and fire detection systems. Additionally more camera vendors broaden their portfolio and offer access control tools and in-



trusion detection systems that cooperate with each other. And finally most access control companies have given up their reluctance against products that do not come from their core business and they do present products that ensure flawless functionality and seamless interfaces.

My advice is to ask the companies you prefer to work with about their offering in this field e.g. at the next trade show. You will learn very fast who is ready and open-minded for such ideas and who is just pretending to do so.

If you plan to visit IFSEC in Birmingham, we invite you to visit the GIT SECURITY Team in Hall 4 at Stand H120. We will be showcasing our security publications and will present our new security business web www.GIT-SECURITY.com

Enjoy reading this issue,



RFID-Technology EDITOR'S NOTE for Innovative **Access Control**

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One Panasonic, IP Migration and SmartHD

When Panasonic System Solutions and **Panasonic Communications Company** merged to become Panasonic System Networks Europe (PSNE) in January, not only the idea of "One Panasonic" for the security market was born. The amalgamation of experience and expertise from both parts of the company support Panasonic's strategy to unite communications and security networking products. IP Migration is a strong trend in the industry and with the merger it is Panasonic's goal to drive a strong competitive edge for the company and their customers through the delivery of products that are designed for the new network age. With this background, it was more than exciting for a selected group of Panasonic's global partners to see for the first time the presentation of the 3rd generation of i-Pro Network products and the new SmartHD concept in Tokyo in March during the Security show. 22

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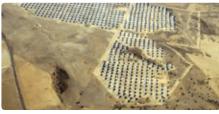
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Thanks to the 32-times zoom factor and the maximum focal length of 500 mm the Megapixel Zoom lenses from Fujinon are the ideal choice for monitoring at long distances. The resolution of 1.3 megapixels provides

the highest level of detail in full HD quality. Thanks to Fujinon's Day+Night technology there is no need to refocus when switching between day and night mode – for safe monitoring around the clock. Fujinon. To see more is to know more.

Machine Vision Binoculars

Medical

NEWS NEWS +++ NEWS +++ NEWS +++ NEWS +++ NEWS +++

Sanyo: David Hammond Appointed European Sales Manager

In his new role David Hammond will be responsible for developing the European sales channel for Sanyo's extensive CCTV product range and for ensuring that company's distributors throughout Europe are provided with the highest levels of pre and post sales support. Commenting on his appointment, he said:



"I am delighted to be given this exciting career opportunity to add to the success of one of the industry's strongest brands." David Hammond, who has worked within the electronic security industry for almost thirty years, was previously Western Europe Sales Manager for Samsung Techwin.

www.sanyosecurity.com

BSIA: Increase in the Use of Video Content Analysis

An increasing number of people are using Video Content Analysis (VCA) as a security measure, according to research conducted by the British Security Industry Association (BSIA). In its research the BSIA investigated how often installers and manufacturers supply VCA in their solutions. VCA is the automatic analysis of CCTV images to create useful information about the content. It has a wide range of uses from the detection of intruders, left packages and wrongly parked vehicles to counting people entering or leaving an area. An impressive 80% of respondents reported that they provide products using VCA with over a quarter of products supplied using the technology. As well as the majority of respondents providing VCA, both installers and manufacturers commented on an increase in the number of supplied products using VCA in the last 12 months. Installers noted a 7% rise whereas manufacturers reported a 4% increase. www.bsia.co.uk

Arecont Introduces H.264 Dual Mode 10MP Camera

Arecont Vision introduced its H.264 Dual Mode 10 MP/1,080 p camera. The camera combines the resolution of a 10 megapixel camera and a full HD 1,080 p at 30 fps camera into one camera system. The AV10005 Series, available in color, day/night and color auto-iris versions, are the latest additions to the company's line



of megapixel cameras. "Our new AV10005 Series merges the functionality of two cameras into one providing the unique ability to operate in either 10 megapixel resolution or in Full HD 1,080 p at 30 fps," said CEO Dr. Michael Kaplinsky. "This camera offers our customers the ability to use a single camera model to solve a multitude of challenging requirements that exist in complex installations." www.arecontvision.com

SP: Fire Fighting Operations in Road Tunnels

SP has presented a study regarding Effective Fire fighting Operations in Road Tunnels. The main purpose was to develop operational procedures for fire brigades in road tunnels. Although much progress has been achieved in various fields of fire safety in tunnels, very little attention has been paid specifically to fire fighting in tunnels. The study has been focused on obtaining more information concerning how effectively the fire brigade can fight road tunnel fires and what limitations and threats fire brigades may be faced with. This knowledge can help parties involved in tunnel safety to understand safety issues and enhance the level of fire safety in road tunnels. The report can be downloaded from the company's website. www.sp.se

Securitas Acquires Security Services Company in South Africa

Following the strategy to increase its global presence, Securitas has acquired the security services company Claw Protection Services in South Africa. Enterprise value is estimated to MSEK 12 (MZAR 13). Claw Protection Services has annual sales of approximately MSEK 38 (MZAR 40) and approximately 800 employees. The company is specialized in guarding, mainly in the areas of Johannesburg and Pretoria. Claw Protection Services has also an in-house training centre for guards. With this acquisition, Securitas in South Africa has annual sales of approximately MSEK 56 (MZAR 58) and approximately 1,050 employees, with operations in guarding, mobile, alarm monitoring, forensics and risk management services. The security services market in South Africa is very fragmented, with about 5,000 registered security companies and about 310,000 registered security guards. The security market has an estimated annual growth of 8-10%. www.securitas.com

Salto Readers Support Siemens' Sipass Integrated System

Salto Systems announced that its offline access control readers now integrate with Siemens' Sipass integrated security management system. The combined solution offers customers the best of both worlds - the opportunity to control access to doors using Salto's extensive range of powerful offline solutions - together with Siemens' online access control system Sipass integrated - all with the same card. All the cardholder data for both systems is stored in the integrated database and all events at all doors - both offline and online - appear in the Sipass integrated event log. Designed to fit into a state-of-the-art IT environment, the modular structure and scalability of Sipass integrated make it easy to adjust to keep pace with the changing needs of



Marc Handels. VP Global Marketing for Salto Systems

any organization. It supports a virtually unlimited number of cardholders and controllers to suit any facility size.

www.saltosystems.com

Xtralis' Smoke Detection System Awarded

Xtralis was honored at ISC West with the 2010 New Product Showcase for the Best Fire and Life Safety Solution for its Vesda VFT-15 aspirating smoke detection (ASD) system. It is the only early warning fire detection system that provides pinpoint addressability for up to 15 protected areas. As a multi-channel system, it divides a protected space into sampling sectors, enabling the reliable detection and location of a fire at a very early stage, which is key to fast and intelligent emergency response. The system can be configured to protect a number of environments, including cabinets, electronic data processing rooms, prisons, historic homes, museums and art galleries. Current listings and approvals include: UL, FM, VdS, CE - EMC, LVD and CPD, and EN54-20. www.xtralis.com

Arecont Vision Launches A&E Partner Program

Arecont Vision launched an A&E (Architect & Engineer) Partner Program to provide architects, engineers and consultants with the tools they need to design effective megapixel video security systems. The program includes access to a password-protected web portal that offers design tools such as storage, bandwidth and field-ofview calculators; A&E specification documents; mechanical drawings; and a database of Microsoft Visio shapes. Membership in the program is free for architects, engineers and consultants. "Our goal is to make sure the Security Industry's A&E community is well equipped with the necessary tools to design flawless megapixel security systems," said Jason Schimpf, Partner Relations Manager.

www.arecontvision.com

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CBC's C-Allview Cameras Protect Maidstone Council Car Parks

CBC (Europe) has teamed up with electronic security installer IC2 CCTV and wireless communications specialist 802 Global to protect 'park-and-ride' car parks for a local authority in Kent. Maidstone Borough Council, which operates the park-and-ride facilities, has also successfully used the cameras to reduce the number of vehicles entering the town centre, improve the local environment and cut vehicle emissions. CBC's Ganz C-Allview PTZ domes were installed. These high-speed rugged PTZ cameras, which are sealed to IP67, are designed for installation in harsh and challenging environments. Their vandal-resistant features include bodies cast from aluminum, which are hard anodized and powder coated to protect them from scratching, oxidation or attack from solvents.

www.cbceurope.com

Salto: Door Security at Royal Agricultural College

Salto Systems working together with Bristol based business partner Gem Security Centre, has implemented the replacement of mechanical key operated night latch rim locks with a Salto XS4 electronic access control solution at Cirencester's Royal Agricultural College. Established in



1845, the Royal Agricultural College offers over 40 career-focused programs within its School of Agriculture, School of Business and School of Real Estate and Land Management covering agriculture, equine management, business and rural land and property management and is home to a vibrant community of over 1,000 students. Salto offered the college a modern solution to security in its student accommodation by retrofitting a smart card based access solution to replace its keyed system. The XS4 system met a vital client requirement for an up to date security solution that provided far greater control over who could access what, where and when and provide full audit trail accountability to resolve any access issues should these arise.

www.saltosystems.com

www.c-tec.co.uk

C-Tec: UK Fire Safety Laws Seminar at Ifsec

C-Tec will be hosting its "UK Fire Safety Laws" seminar at this year's Ifsec. With the number of prosecutions and imprisonments under the Regulatory Reform Order growing daily, the seminar examines the impact of the legislation, what business are required to do and how companies can take advantage of opportunities created by the new legislation. Hosted by Mike Parsons, the company's Business Development Manager, the hour-long seminar will take place on Tuesday 11 May (12–1 pm), Wednesday 12 May (1–2 pm) and Thursday 13 May (12–1 pm). The company will also be exhibiting its extensive range of third-party certified fire alarm control panels and power supplies on Stand I10 in Hall 5 in addition to its entire range of call systems, disabled refuge systems and induction loop amplifiers.

VCA Sold 35,000 Licenses in 2009

VCA Technology has secured 34,803 Personal Computer (PC)-based licenses of its video content analytics suite – VCAsys – supporting more than 200,000 video channels in its first year of trading. A further 3,259 VCAsys IP licenses were sold for uploading into network cameras. One such order was a 1,500 channel contract to support central traffic monitoring in Baku, the capital of Azerbaijan. The software can be embedded into edge devices such as network cameras, uploaded into video management and recording systems or controlled direct from a PC. VCA has been actively engaged throughout 2009 with both video management system and network camera vendors in order to integrate with their systems.

Loomis Documents Cash Handling with Milestone IP Video

Milestone Systems open platform IP video management software is a tool for Loomis Danmark to ensure transparency throughout the entire cash services process. The transport and counting of cash, financial documents and other valuables is a business that demands ongoing atten-



tion to security, which is well covered by Milestone Xprotect Corporate managing network cameras from Axis and megapixel cameras from Iqinvision documenting every detail of the activities. Loomis utilizes a number of security measures, where video surveillance plays a big role. Every day over 100 cameras in the Glostrup location and a similar number in the city of Brabrand help to ensure that all procedures and security processes are being upheld.

www.loomis.com

Hikvision Network Camera Integrated with Mirasys NVR Solution

Hikvision Digital Technology announced that its full line of H.264 network cameras is now supported by the Mirasys NVR (Network Video Recorder) solutions including NVR Pro and NVR Enterprise. In addition to the NVR products, the network cameras also integrate into Mirasys N series network video recorders and V series hybrid video recorders. The network cameras utilize the latest H.264 video codec, enabling superior video quality using less bandwidth and storage. The cameras support dual compression stream, in which the sub-stream allows for remote preview and mobile phone monitoring. The Mirasys NVR Pro is a single-server IP video recording product aimed at the retail and small business client, with support for up to 32 cameras. The Mirasys NVR Enterprise offers a comprehensive security platform with automated processes, tools for pro-active fraud- and loss-detection, and post-active investigation. NVR Enterprise supports up to 5,000 IP and analog cameras, which can be managed as a single system independent of location.

Global Fire Market Regroups

www.hikvision.com

In its latest fire detection and suppression report, IMS Research estimates the global fire market to have declined by some –3.0 % during 2009, with the market not set to recover to pre-recession growth rates until 2012. As new construction starts began to decline late in 2008, slowdown in the fire industry was inevitable. Justin Siller, report author and analyst at IMS Research comments: "The decline in sales of fire products lagged the general economic downturn. As new construction starts in 2006–2008 were completed, there remained opportunities for fire detection and suppression products. However, suppliers began to feel the true effects of the economic slowdown by the middle of 2009, with new construction activity grinding to a halt late in 2008 particularly in EMEA and the Americas. As new construction builds slowly recover over the next few years, IMS Research forecasts that fire equipment sales will follow suit."

www.imsresearch.com

Sicurezza 2010

The 15th Sicurezza 2010 from 17th to 20th November in Milano is a biennial international exhibition dedicated to professionals within the anti-intrusion, fire prevention (detection), passive defence systems, home & building automation, intelligence and anti-terrorism, the local police force and private security guardian. For the first time, Unicri (United Nations Interregional Crime and Justice Research Institute), an official body of the United Nations, will take part. The trade fair will focus on cutting-edge topics and present best practices, involving an international panel of experts. Seminars with representatives of the public sector and the exhibiting companies will be organized, aimed at enhancing dialogue among security Executives and producers of technologies.

www.fieramilanotech.it

IQinvision Launched Iqeye eStore

IQinvision has opened the Iqeye eStore, an e-commerce site for the Iqeye Basic Line of network cameras and accessories. The store is designed to reach IT, Security, and Pro AV resellers and integrators not currently serviced by the company's distributors. Resellers will be asked to go through a simple approval process and upon successful completion will enjoy an easy on-line shopping experience for Iqeye standard and HD megapixel cameras with no minimum commitments, and attractive discounts for entry-level resellers.

www.iqeye.com

Eyevis Shows Led DLP Video Wall Cubes in Croatia and Serbia



Eyevis will show their new LED DLP cubes for video walls, including graphics controller, LCD video wall systems with super narrow bezel at two major exhibitions in Croatia and Serbia. From May 11^{th} to 15^{th} , the 54thInternational Fair Of Technique An Technical Achievements (UFI) will be held in Belgrade, Serbia. This show is dedicated to the following areas: Integra - 21st Century Computer Integrated Factory, Electrical Engineering, Lighting, Electronics (power, industrial, home), Telecommunications, Me-Re-Ko (measuring equipment and instruments, regulation, process management), KGH – heating, ventilation and air conditioning devices and equipment, Processing Equipment, Trans-Balkan (logistics and transport), Shipbuilding, Welding, Materials, Professional and scientific equipment, Innovations, New technologies, Scientific technical literature, National exhibitions.

www.eyevis.com

EADS: Tetra Tests

EADS Defence & Security have joined forces with State Security Networks, operator of the Finnish Virve network, to start testing the Tetra Enhanced Data Service (TEDS) as of May this year. The work will be conducted on a test network with the same characteristics as the live Virve authority network, apart from the Teds-capable software. Teds is the high-speed data evolution of the Tetra radio communication standard. A Teds-capable Tetra network will provide significantly faster data services than today's Tetra networks without compromising any of the technology's high security or coverage capabilities. EADS Defence & Security was the first vendor to demonstrate Teds in June 2007 and has continued to develop the software in order to run the system on existing EADS Tetra hardware as well as developing Teds-capable Tetra radios.

www.eads.com

Liquid Crystal Displays

In the second edition of his book "Liquid Crystal Displays", Ernst Lueder, Prof. em. of Stuttgart University, provides a timely update to his successful text. His combination of theory and practice presents all the information required for the development and manufacture of modern high performance and energy saving LCDs. The author also strives for an easy to understand description of complex facts. The second edition focuses on a variety of liquid crystal cells and their electronic addressing, and outlines new developments e.g.: High performance VA cells, especially for TV; short optical response times in the range of 1 ms for intergray transitions due to novel addressing waveforms; Fringe fields switching for acceleration of rise and decay of luminance eliminating frame memories.

Ernst Lueder, Liquid Crystal Displays - Addressing Schemes and Electro-Optical Effects; 2. Edition; ISBN 978-0-470-74519-9; € 97.90

Kentec in Bulgaria

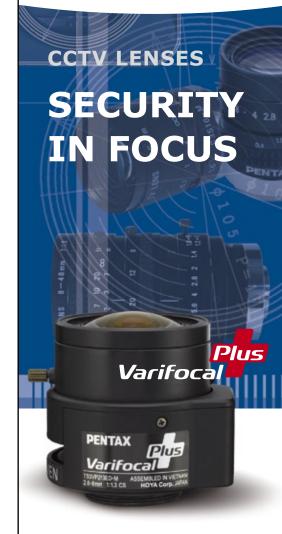


Kentec fire control panels are protecting two new prestigious buildings in Bulgaria's capital Sofia; the Bulgaria Tower and the twin towers of the Karol Finance Building. Both buildings have been designed and built to the highest modern standards, with each projecting a unique architectural footprint. And such high technological standards are reflected in the specification of Kentec fire control panels by Sectron Security & Communication Systems, a leading and widely respected Bulgarian Fire and Security System Integrator. A Kentec 6-loop Syncro analogue addressable fire control panel with two additional repeaters has been installed in the Bulgaria Tower. The system being supported by Hochiki open protocol fire data communications, and integrated to inputs such as lifts and the sprinkler system via Hochiki interface modules.

www.kentec.co.uk



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HACKING

Security in **RFID-based** Personnel Identification

Hacked RFID Read Procedure – How Safe Is Safe?

It is well known that every security method has its limits and that the effort required to crack a security pass or a transponder in an RF-based (Radio Frequency) identification system in most cases bears no relation to the potential gain. The first section of this two-part article provides tips on what to look for in the choice, introduction and security of RFID-based ID systems and what influencing factors there are. The second part will cover new developments and their resistance to hacking attempts.

The abbreviation RFID stands for "Radio Frequency Identification". The data and the power are transmitted via a high frequency magnetic field. For this, coils are built into the so-called ident carrier surface (as antennae) that are connected to a microchip. RFID systems use different frequency ranges, from long wave up to microwaves, that have a bearing on the reading distance. A further distinguishing feature lies in the memory type that is used. The fundamental difference here is between read only and read/write systems. As the RFID chip is extremely

small and flat, it can be integrated without a problem into so-called transponders that come in various shapes and sizes. Key fobs are preferred for access control and time recording applications as they are more robust. But identity cards are used as soon as one wants to do more with the medium (pictures, inscriptions, multipleuse visitor badges etc.). Active transponders have their own power source (battery) and are mostly used to cover large distances whereas passive transponders are supplied with power through the reading device.

Keep It Simple

Proximity systems with passive transponders are usually used for access control, staff time recording and canteen data collection where the ID card is brought close to the reader. Read-only and unprogrammed ID cards can be sufficient for the most simple identification jobs with a low security requirement. The basic data of the chip consists of a unique serial or ID number as multiple bytes. Because of this simplicity, the area of the chip can be kept very small, which results in low power consumption and also low manufacturing costs. The useable recognition distances are relatively long thanks to the low power consumption compared to intelligent systems with a large memory. The read and write systems provide more options for applications and better security because of their additional encryption capabilities. A contactless read/write card can also be used for fuel tanking data and canteen billing, e.g. to deduct amounts at vending machines. There is a reduction in reading range because more energy is required for data reading and alteration. The memory capacities vary between 16bytes up to currently 8kbytes.

Close at Hand

The advantage of a contactless chip card lies in its simple usage and that there are no problems through dirt or wearing of contacts. Nowadays there are numerous types of contactless chip cards and the RF standard defines how the transponder and the reader communicate with each other. This has a big effect on the communication distance. As already mentioned, the reading distance is dependent upon the frequency, the RFID chip, type of transponder (card or key fob) and the respective memory capacity of the ID device. For example, a Hitag reader at 125 kHz and small memory has a larger communication distance compared to the higher frequency of 13.56 MHz used by the LEGIC advant reader with larger memory. There are also differences in communication distance within frequency bands, regardless of the ID device type and size of the antenna. A small key fob (mini antenna) for example has a shorter reader dis-

Example of different types of identity devices





o: PCS Systemtechnil

MANAGEMENT

tance than an ID card with the same reader antenna size.

The Long and the Short of It

There are currently three different standards that define different reading ranges. Here it is important to note that these are theoretical maximum values that have not been attained in practice.

- ISO/IEC 10536 close coupling, CCC for a range of c. 1 cm. In these systems, the ID device is inserted into the reader or laid on it. Close Coupling systems work at a frequency under 10 MHz and are seldom used for access control or time recording.
- ISO/IEC 14443 proximity coupling, PICC for a range of c. 10 cm. Reader versions: e.g. Legic advant, Mifare Classic, Mifare Desfire EV1, Iclass, Applications: e.g. time recording, ePass, ticketing, cash card, Characteristics: short communication distance, larger memory, higher transmission speed
- ISO/IEC 15693 vicinity coupling, VICC for a range of up to c. 1m. Reader versions: e.g. Legic advant, i-code; Applications: e.g. logistics, goods tracking, sport time recording; characteristics: longer communications distance, smaller memory, lower transmission speed

These standards describe the physical and data characteristics of the transmission paths between a reader and the ID device. The first standard was for the 'Close Coupling Cards' that originate from the time when the available microprocessors had relatively high power consumption so that energy transmission over a longer read distance was not possible. Installations behind stainless steel or aluminum are not advisable, and also other materials can reduce the read range or even prevent it altogether.

As the data of a transponder can also be read out by a transportable reader (see also the publications of the CCC on Mifare Classic and Legic prime hack by the CCC), further security measures should be incorporated for access control to sensitive areas. For example, access can be secured with a PIN, password or biometric recognition system. When using a fingerprint or hand vein recognition system, for example, the reference data can be securely stored in the correspondingly large — and against unauthorized access secured - memory of a chip card.

Making the Choice

The effort required to introduce or the choice of a new ID device, that is, a company ID or transponder, is frequently underestimated. The difficulty lies in the vast choice of multifunctional, RFID-based card systems with a multiplicity of different providers and technologies, in particular when one is not concerned with this subject every day. One wrong choice can lead to many restrictions and to higher consequential costs. ID cards are not only used for access control and



time and attendance recording but are also used for electronic payment in the canteen, at the gas station and for collection of operational data. In these cases it is often necessary not only to save and read out data but also to be able to alter specific parts thereof.

Openly Proprietary

The memory needed for future planned tasks must also be taken into consideration, e.g. as a medium for the storage of a biometric template (i.e. the algorithm of a body-specific characteristic such as a fingerprint), or for verification (an ID card plus biometric characteristic). Salespeople frequently highlight the specific RFID-coding of their security solutions but fail to mention that these do not conform to the current state of technology, or are manufacturer-specific and that passes and readers can only be obtained from that supplier. It should always be asked what functional and price alternatives are available and why a particular system is being offered. So far, in the first part of this article, the fundamental technologies and their range differences have been discussed. The second part will look at new developments, in particular at Dual-Interface Cards which combine technologies, and their resistance to hacking attempts.

► C O N T A C T

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INTERVIEW

Don't Fear the Big Players

An Interview with Jan Meiswinkel about the Vision of Integration and Interaction

Advancis is known for it's security and building management system WinGuard. This constantly developed product ist distributed via integrators, OEM-Partners and in some exceptional cases also directly. Since 15 years Advancis understands itself mostly as consultant and system integrator. Regina Berg-Jauernig of GIT SECURITY met with Jan Meiswinkel. Together with company founder Hartmut Nöll he manages the company as a co-owner.

GIT SECURITY: Mr Meiswinkel, you're celebrating your 15th company anniversary these days. I remember your presentation of Win-Guard on the Security Exhibition in Essen in 2000. How did you manage to enlarge Advancis to 25 employees and an annual turnover of 3 million euros today?

J. Meiswinkel: Until that day the company was basically a one man show by Hartmut Nöll. I met him these days and we both saw the potential in one another and started pushing forward the company as equal partners.

What were the criteria for success from your point of view?

J. Meiswinkel: A basic criterion is our wide diversity of characters and competences inside our company. This applies for the sales department as well as for the project management or developement. Also the diverse allocation of the management and company ownership. From my point of view, this is one part of our success.

And in the quality of your product?

J. Meiswinkel: Yes. The head of development has an essential influence on the product. This may be a difference to other companies, that are more orientated to market- and project specific requirements. For us the significant influence of our engineers and software developers on the development process as well as on the quality of the product is most important. The company Advancis is 100% focused on the product Win-Guard. This means we concentrate on security and building management and don't lose our focus in following other activities aside. This is how we position ourselves in the market. The



fast success that might be pursued by the sales department is slowed down by the development department in a fertile way. We believe that this mixture is the base of success for the company.

Were there also difficult times?

J. Meiswinkel: Basically the times are always challenging. This is just because our business is moving so incredibly fast. In other industries products can stay on the market for years, mostly unchanged. In our business it's different. That's also a reason why we changed our development process to "Scrum", a model for flexible software development. With this "moving" model, the proximity to the customer plays a decisive role. Our work with the product is therefore a iterative process with constant releases of new updates of our system. This way we can coordinate the development of the product in a close cooperation with our customers. The most difficult part in our business is often to determine the desired functionality and the perfect operational concept already before the product launch. Our customers highly appreciate our way to work here.

Of course this has organisational influences on your sales process?

J. Meiswinkel: Yes. In our sales team we don't see ourselves as the conventional sales representative, but more as a consultant. By this consulting approach we're able to act very flexible and generate the added value for the customer in the end. Internationally this approach is already common. The question here is usually not about the pricing of the product, but more when the investment charges off itself by mapping and supporting the processes in the company.

What is your biggest personal motivation?

J. Meiswinkel: It always motivated me the most to find solutions for special circumstances and requirements. This is also about building big and very big systems. In the beginning, that was a real challenge for us. Nowadays we receive bigger assignments not because we became more well-known, but because due to our independency we can provide a sustainability of investment in reference to future modifications of a system.

Do you have something like a vision that guides you here?

J. Meiswinkel: The vision is the complete integration and automatic interaction of buildingand security solutions in full plus the interaction and communication with other systems like fullscale emergency operation systems. The guiding theme for us is always to create safety. To make



the world a little more secure by protecting human lives and objects of any kind. This is an important stimulus which also creates personal satisfaction.

Which kind of solutions are you working on most intensively today?

J. Meiswinkel: For example we're working on further integration of different CCTV-Systems into our open CCTV Manager. A big part here is the integration of video analytics. One important point here is the synchronisation of the events inside the facility with the corresponding CCTV streams. We already presented this functionality on the Security 2008 in Essen, showing the practical application for a casino solution. Another example for the added value of synchronizing and interaction between the different subsystems is the surveillance of datastreams inside an IT-infrastructure. As an example, our system reports if according to the access control an employee has already left the building, but still data is retrieved from his workstation. Moreover we busy ourselves with the development of mobile solutions like a client version for the Iphone.

Some more catchwords right now are Smartand Green Building Technologies.

In your opinion, what are the special challenges for you right now?

J. Meiswinkel: Next to the already mentioned aspects a crucial part is to balance the growth of the company with it's flexibility. We're managing this by very flat command structures and innovative ways of teamwork. Open tools and interfaces are important here. Most important, especially in times of an economic crisis it enures to the benefit of our company that we're completely debt-free. We're capable of managing potentially difficult times as well as we're able to operate in a solid and economical way. That's important for us to ensure the trust of our customers in the safety of their investment in the long-term view. A further challenge is that we're only able to grow together with partners that need our support. These kinds of partnership are not established overnight, especially under the difficult circumstances for long distance partnerships. Therefore we put very high efforts in our partnership concept during the last years. Our main focus is continuous know-how transfer and educational commitment including inhouse-workshops as well as online trainings for expertise refreshment.

Could you please briefly outline your partner program?

J. Meiswinkel: Only 5–10% of all projects are realised by Advancis itself. Especially if there are a lot of undetermined factors. If we gathered enough expertise in a certain sector, we're able to include and support our partners. About 90% of our customers are integrators. We support them with our Certified WinGuard Integrator (CWI) program in terms of marketing, sales, project realisation and support. Due to the close contact and constant training of our partners we know our solution is represented perfectly in the market.

In which market sectors do you see the highest potential for the future?

J. Meiswinkel: In the currently difficult economic situation public projects are of special importance, for example correctional facilities. Right now we're working on two big correctional facilities in a way, that we'll have a special vertical solution for that market in the end. Special requirements in this case are the cell communication and the localisation of the guards in the field. Using localisation points inside the facility we're able to display the current position of every guard very dynamically in a virtual floor plan – even through different levels of the building. In the end, the process of a moving guard can be watched like a movie. This funcitionality

was developed during the project phase. That's the way we work also in other projects like casino- or parking solutions. Due to our deep understanding of the customer's application requirements in the field we're not afraight of the big players in this business.

Your export rate right now is about 25%. In how far are you going to expand your international activities?

J. Meiswinkel: We're not satisfied with our export rate yet. Our goal is to increase that rate in the next year in a considerable way, at least to 30-40%. By 2012 we're willing to make more turnover on the international than on the local market. To achieve this, my colleague Stefan Bange is in charge of the international business development process. Today we're already market leader in Austria and Luxembourg. Right now we're especially looking for partners in England and France to build an Advancis branch there. Furthermore we'd like to find more partners for our "Advancis Solution Provider (ASP)"-Program in order to build joint-ventures. With 23 supported languages including the functionality of switching the program from left-to-right for the arabic region, from the technical point of view the requirements are already fulfilled.

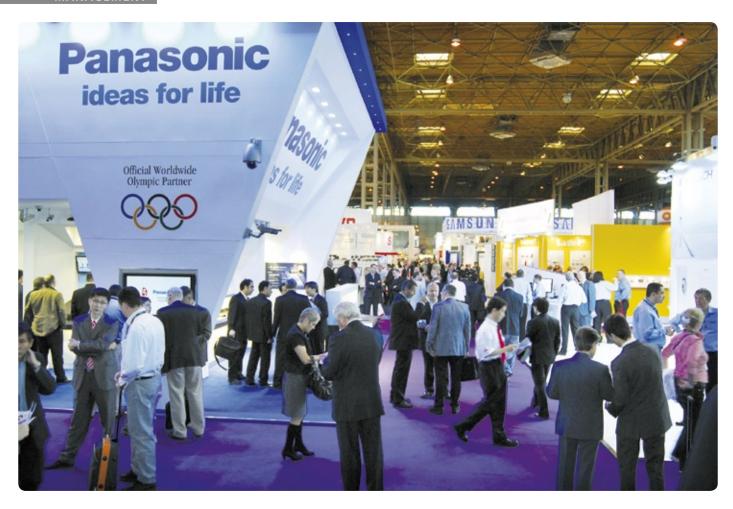
Mr. Meiswinkel, thanks for the interview.

▶ C O N T A C T

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EVENT

Ifsec 2010: Positive Signals for the Market

Ifsec, Safety & Health Expo and the Facilities Show

Ifsec, the world's largest annual security event, returns from 10-13 May 2010 to the NEC Birmingham. The event will provide security installers, manufacturers, distributors, IT integrators, end-users and consultants with a platform to keep up to date with the ever-changing developments of the global security industry. Following the successful 2009 event where more than 600 of the world's leading companies exhibited and more than 25,000 security professionals attended, Ifsec consolidated its position as the mustattend event for the international security industry.

James Blue, Director of Fire & Security at UBM Live, organisers of Ifsec, said: "Given the economic conditions in the last couple of years, our aim for Ifsec 2009 was to put the feel-good factor back into our visitors and exhibitors and to reinvigorate the international security industry. Feedback we have received confirms that we achieved our target and we are extremely excited to further develop this in 2010. Ifsec remains the world's largest annual security event for a reason - we work with the industry all year round to develop the programme and to ensure we are providing our visitors with everything they need." Ifsec 2010 will expand on its recent successes with its extensive exhibition, unparalleled educational content and exciting features.

Extensive Exhibition

Visitors to Ifsec 2010 will be able to explore the latest security products and services available both in the UK and worldwide. The exhibition will be organised into the following categories:

- Integrated Security: IP & Network Solutions
- Access Control

- CCTV
- Intruder Alarms
- Counter Terror & Physical Security
- Security Solutions and Fire Solutions.

Axis, Dallmeier, Genie CCTV, HIK Vision, Indigo-Vision, JVC, Norbain, Panasonic, Samsung, Sony and Tyco are amongst those exhibiting. Within the exhibition there will be a number of international pavilions in which visitors may seek the latest products and services from all over the globe. Supported by the US Commercial Service, Ifsec 2010 will feature its first US Pavilion. Based in hall 4, this pavilion will house a plethora of innovative manufacturers to allow visitors to source US security products and services in one concentrated location. Commercial staff from the U.S. embassy in London will also be on hand to answer any queries.

In addition to the US, there will be a raft of other pavilions for visitors to take advantage of including those representing Belgium (new for 2010), China, France, Italy, Korea and Taiwan. Furthermore, Ifsec 2010 will feature its first

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MANAGEMENT

Spain Pavilion with the Secartys association, a voluntary organisation which represents more than 1,200 industries in electronics, information technology, telecommunications and solar energy across Spain, also introducing new exhibitors from Spain in the different product areas within the exhibition.

Also within the exhibition, the new Loss Prevention Certification Board (LPCB) Red Book Pavilion will house seminars and presentations based on all aspects of LPCB third party approvals, training schemes and research relating to physical security. The free-of-charge educational programme will be led by industry experts from the LPCB and dedicated staff will be on hand to answer any questions.

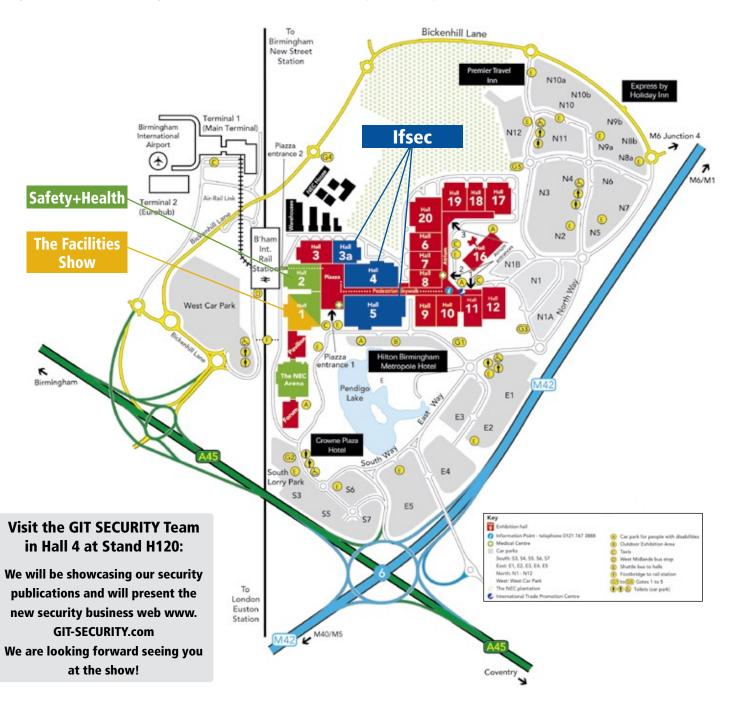
Ifsec Conference

Following the resounding success that was last year's Ifsec Conference, this year's conference promises to be another three days of carefully researched high-level content delivered by some of the most senior players in the industry. The conference forms part of the educational content available at the Ifsec Exhibition and its modular format will allow delegates to tailor their conference experience by choosing the modules that are most relevant to them. This year's agenda takes a fresh look at some key issues, including counter terror strategy, protecting critical national infrastructure, preparing for 2012, corporate security issues, security guarding and the very latest updates on CCTV and other technologies. The focus for 2010 will be looking at deriving the most value from security solutions and managing resources as efficiently as possible in today's cost-conscious climate. The conference takes place from 10-12 May at the NEC in Birmingham as part of the Ifsec exhibition, and conference places can be purchased via the Ifsec website. The 2010 Programme Outline

- Day 1 Countering Terror and Protecting the Nation
- Day 2 Corporate Security in the Recovering Economy
- Day 3 Next Generation Technologies

Ifsec Conference 2010 is set out in a unique modular format, allowing to book modules of specific interest. Each module consists of three 30 minute presentations followed by a 25 minute interactive panel debate. Some speakers are already confirmed:

- Charlie Edwards, Head of Strategy & Planning, Office for Security and Counter Terror, The Home Office,
- Chris Phillips, GCGI, MSyI., DCI Head of The National Counter Terrorism Security Office (NaCTSO)





- Chief Superintendent Brian Kelly, Deputy Head of the Design Authority Team, Olympic Security Directorate
- Don Randall MBE, Head of Security, Bank of England
- Mark Harding, Managing Director, Showsec, & Chair of UKCMA

Ifsec Security Industry Awards

Finally, the Ifsec Security Industry Awards, organised in association with the British Security Industry Association (BSIA), returns to acknowledge the people, products and technological advancements that have played a big part in the security industry over the past year. Awards will be handed out to the following categories which

have evolved to reflect the changing landscape of the international security industry:

- Product categories (open exclusively to Ifsec 2010 exhibitors)
- CCTV Camera Equipment of the Year
- CCTV System of the Year
- Intruder Alarm or Exterior Deterrent Product of the Year
- Physical Security Product of the Year
- Access Control Product of the Year (including biometrics)
- Communication Product of the Year
- Integrated Security Product of the Year

Non-product categories (open to both exhibitors and non-exhibitors)

- Security Project or Security Installation of the Year
- Guarding Service Delivery to Customer
- Best Policing Partnership of the Year

Safety & Health Expo and The Facilities Show

Ifsec 2010 will be co-located with Safety & Health Expo and The Facilities Show at the NEC Birmingham from 10–13 May 2010. The Facilities Show is the UK's biggest and fastest growing FM event. The Facilities Show is the place where visitors can meet face-to-face with over 130 market leading companies and 1,000s of fa-

cilities managers all looking to source the latest products, services and information. Safety & Health Expo, Europe's largest annual health and safety event will be hosted in partnership with the Royal Society for the Prevention of Accidents (RoSPA), the British Safety Industry Federation (BSIF) and the Institution of Occupational Safety and Health (IOSH). Adrian Newton, Portfolio Director of Safety and Building Management at UBM Live, organisers of Safety & Health Expo, said: "We took the opportunity in 2009 to launch a raft of exciting new features to compliment the established mainstays of the event. These features were born out of comprehensive industry research and were a huge hit amongst our visitors. We will therefore be expanding the programmes in all our features to further enhance the visitor experience and look forward to building on last year's successes."



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CCTV

Curtain Up!

New CCTV Product Developments at Ifsec 2010

Some of the latest Everfocus developments are still secret, but the curtain will be raised on May 10th when Ifsec starts in Birmingham, UK. A new "Paragon" version will be one of the stars on the booth together with some new cameras.

With more than ten years experience manufacturing CCTV products, Everfocus offers a comprehensive product range geared to system integration. Everfocus Electronics Corporation, resident in Taipei in Taiwan, ensures the worldwide distribution of their CCTV products through branch offices in China, Japan, the USA and Europe. The European distribution centre, Everfocus Electronics AG, is located in Emmerich am Rhein, Germany, where 25 employees are dedicated to fulfilling customer demands. At Ifsec they will show the latest developments, including the new Paragon model.

This new 16-channel D1 real-time digital video recorder called 'Paragon 264x4' incorporates the latest H.264 compression technology and offers D1 real time recording and playback for all cameras. Paragon 264x4 is equipped with three main monitor outputs (VGA, BNC and HDMI) and one call monitor output, while either the HDMI video output with full HD resolution (1080p) or the VGA or BNC output (simultaneous view) may be assigned as the main monitor output.

Fast Network Transmission

The main features include pentaplex operation for simultaneous recording, playback, archiving, live view and network access, a pre-alarm buffer, an extended schedule setting including a holiday calendar and express schedule functionality

as well as audio recording for all 16 channels. Data archiving is effected through either a USB 2.0 port, the network or the built-in DVD-RW drive (optional). Paragon 264x4 further offers fast network video transmission with dual streams for mobile phone streaming (3GPP) and numerous playback search functions including Smart Search and a snapshot search function. Of course, the DVR also incorporates programmable motion detection, event notification incl. email alarm and network alarm functions, local and network PTZ control and the free Everfocus DDNS service enabling users to register their DDNS account directly from the DVR setup menu.

The latest Everfocus Nevio IP products will also be presented at Ifsec in Birmingham. The innovative and high-performance EPN 3600 Nevio IP day/night speed dome camera with a 36x optical zoom has H.264/MPEG4/MJPEG compression with up to 25 fps digital output at 4CIF resolution. With triple-streaming output, the EPN 3600 offers simultaneous live monitoring and high resolution recording as well as built-in network connectivity. The EPN series is engineered with an intelligent auto-tracking function to detect any progressively moving object and follow it within the speed dome's area of coverage. Auto-tracking also features exclusive masking, pan/tilt limits and flexible resume functions. The unit also has a wide dynamic range to cope with extreme lighting conditions and is available as either an outdoor or an indoor model.

To Serve and Preserve

The Nevio IP product range to be demonstrated during Ifsec will include the latest additions to the IP camera range: the EAN 800 A, a 1/3" advanced color network camera available as stand-

ard or wireless model and the EDN 850 H 1/3" vandal-proof outdoor day/night CCD network camera with H.264/MPEG4/MJPEG multistream and automatic IR cut filter. 2 new video servers will also be presented on the Everfocus stand – the ERS-4, a 4-channel video server with recording capability and the EVS200A 2-channel video encoder, available as standard or wireless model.

With the 32/16/8-channel network video recorders ENR 3200, ENR 1600 and ENR 800, users can manage up to 32 channels from Megapixel cameras, IP cameras and video servers. All NVRs provide a recording resolution of up to 1280 x 1024 at a recording and playback rate of up to 25 IPS per channel with built-in MJPEG / MPEG4 compression methods. The multilingual ENR series NVRs support multi-brand IP products and provides local and remote PTZ control, digital PTZ and bidirectional audio. Integrated video analytics, numerous intelligent search functions and an integrated counting function for freely definable object sizes round off the NVRs' features.

The new 2 Megapixel NeVio HD camera series will also be launched at Ifsec 2010. All Everfocus IP products are naturally supported through Powercon 4.x network management software, available as a pure software solution as well as an EPC 4000 combined hard-/software solution. In conclusion, there's a lot to discover at Ifsec in Birmingham, in hall 5 on stand B5 from 10 to 13 May, 2010.

Ifsec, Hall 5, Stand B5

► CONTACT

BusinessPartne

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Videotec Member of PSIA Alliance

Videotec joined PSIA in 2009 and during the last few months has actively worked to gain a thorough knowledge of the protocol. Now this common language has been successfully integrated within their



Albert unit for video analytics. A prototype was shown at the ISC West exhibition at Las Vegas. Visitors could see and try the system to remotely control the PTZ telemetry through the PSIA protocol. The system helps operators to monitor a certain area. It is based on the smart cooperation between units, on an advanced outdoor-oriented event detection, on the ease of configuration and use. Standards for networked security devices will increase market opportunities for IP-enabled solutions as products can be easily integrated with others, regardless of brand. These standards will enable manufacturers to highlight a product's features and benefits regardless of costs. Ifsec, Hall 5, Stand C60 www.videotec.com

Dallmeier IP Cameras Support Onvif

Since August 2009, Dallmeier has been a "Contributing Member" to Onvif and meanwhile all Dallmeier IP cameras have successfully been tested for Onvif compatibility. The Open Network Video Interface Forum (Onvif) aims at creating a global interface standard for networked



video products. The standard makes it possible to jointly use devices from a variety of manufacturers in one system. "For many years, we have been relying on open interfaces as well as integration possibilities of and into third-party systems. So it was a logical move for us to join Onvif," Dieter Dallmeier explains. As a contributing member Dallmeier is able to actively participate in the development of the standard. "We have in the meantime integrated the Onvif specifications with all our network cameras. It is already planned to implement them with other products," says Dieter Dallmeier. All of the manufacturer's IP cameras support the Onvif standard. Ranging from the network box camera DF3000IP-PoE and the vandal-resistant DDF3000IPV dome camera up to the IP PTZ series Domera (DDZ30XX-YY/HS/IP).

www.dallmeier-electronic.com

Ifsec. Hall 5. Stand G10



Day/Night Bullet Camera

Vista has released its high-performance VBC500 long-range bullet camera. From construction sites to large integrated security networks, the IP66 rated camera can be used internally or externally, to provide high-resolution 580 TVL colour/700 TVL monochrome imaging, complete with twin integrated (outboard) IR illumination. Supplied pre-wired with a 1 m cable, and cable managed bracket for secure wall, ceiling or soffit mount, the long range day/night bullet camera's com-



pact and discreet design ensures that it will blend into the majority of surroundings. Two fully adjustable outboard IR pods, each with 35 x 850 nM IR LEDs, provide greater than 50 m illumination, whilst a varifocal 2.8-12 mm lens delivers crisp images. Advanced Wide Dynamic Range (WDR) and 3DNR digital noise reduction deliver clearer images in scenes of high contrast and low light.

Ifsec, Hall 5, Stand D20 www.vista-cctv.com

Paxton Access and Pelco Enter Integration Partnership

Paxton Access' Net2 access control system now integrates with the DS Connex camera software from Pelco, as Paxton Access joins the Pelco Partner First Program. The latest version of the intelligent Net2 software allows the integration of the Digital Sentry video recorder (DVR) version 4.2 or higher. This brings a new, competitively priced access control/CCTV solution to the market. The pairing of two systems now makes it possible to view stored DVR images from the associated Net2 events. Should an unauthorized event occur, end users can survey CCTV/video security footage of a door at the click of a button. Net2 becomes the single user interface for viewing the footage associated with access events.

www.paxton-access.co.uk

Ifsec, Hall 5, Stand E20

Modular Control Board

Axis Communications launched a modular control board consisting of a joystick, keypad and jog dial for responsive and accurate pan/tilt/zoom control of cameras on the network and management of recorded video. Axis T8310 Video Surveillance Control Board comprises three units: Axis T8311 Video Surveillance Joy-



stick, a three-axis joystick with a turn knob for pan/tilt/zoom control and six push buttons; Axis T8312 Video Surveillance Keypad, used to navigate guickly between workspaces, cameras, views and PTZ presets; and Axis T8313 Video Surveillance Jog Dial, used to jog and dial through recorded video. Each unit can be purchased and used either separately or together as one unit. "The modular control board makes it easy for users to control pan/tilt/zoom functions of cameras in a video management system, quickly select different camera views, and search through recorded video," says Erik Frännlid, Director of Product Management, Axis Communications.

www.axis.com

Ifsec, Hall 4, Stand E90

Enhanced Hybrid Recorders

March Networks presents new products adding to its Videosphere Intelligent Video Management portfolio at Ifsec. The company will demonstrate four new, high-performance edge devices that increase the breadth of its line of IP cameras and encoders/decoders. It will also showcase enhancements to its 4000 C Series hybrid recording platforms, which are currently deployed by top financial, retail and commercial-industrial organizations worldwide. Designed for a wide variety of customer applications, the Videosphere IP edge devices deliver superior video quality and management, as well as H.264 compression for optimum bandwidth and storage efficiency. They include the MegaPX Minidome HD Camera, available in 720 p or 1,080 p resolutions; the X Dome PTZ Camera family with 18x or 36x optical zoom models; the Micro Dome PTZ Camera featuring Power over Ethernet; and the compact Edge 1 Micro Encoder, which functions as a universal encoder or decoder and installs easily in camera housings or power supply cabinets.

www.marchnetworks.com

Ifsec, Hall 4, Stand D80

PoE Injector

Veracity Pointsource is a compact, rechargeable, battery-powered, Power over Ethernet (PoE) injector with two network ports for configuring and fine-tuning cameras with a laptop at the point of installation. Security installers can use it to power the IP camera so they can position, focus, perform network troubleshooting and assign IP addresses to the cameras whilst in the field. The key advantage is that no external power supply is needed as it comes with self-contained power via a built-in rechargeable battery which delivers up to eight hours of continuous PoE to IP cameras requiring up to 15 watts (IEEE 802.3af PoE) supply. The system also provides a local network port for convenient, local access from a laptop or netbook PC directly to the IP device being installed or demonstrated.

www.veracityuk.com

Ifsec, Hall 4, H100

Security Platform

Genetec announced the release of the latest version of its unified security platform, Security Center 4.0. The Security Center now seamlessly unifies the manufacturer's Omnicast IP video surveillance and Synergis IP access control systems with its Autovu IP license plate recognition (LPR) system, offering customers a single point from



which to monitor their security and safety systems. One of the most significant enhancements is the unification of Autovu, an IP LPR system, within the Security Center. The LPR system users will now enjoy access to the company's intuitive client application, the Security Desk, as well as the Security Center's enterprise-level functionality such as seamless scalability over IP. Moreover, users can now centralize monitoring, reporting, and data mining for all their fixed LPR installations using the Security Center in tandem with the Autovu Sharp camera.

www.genetec.com

Ifsec, Hall 4, Stand C30

High Speed Indoor IP PTZ Dome

Infinova announced the introduction of its V1720N-M Series high speed indoor IP PTZ dome camera, which integrators can provide customers wanting an easy transition from analog CCTV systems to IP-based digital video surveillance solutions, at Ifsec in Birmingham. With the V1720N's built-in software, users can view, control, and even program the IP PTZ domes from a PC connected to a work station using a standard web browser and the manufacturer's on-screen simulated keyboard. "The V1720N is another camera solution that



will help integrators provide their customers with a cost-managed approach for migrating to IP," emphasizes Mark S. Wilson, Infinova vice president, marketing. "Infinova wants to enable organizations to move to IP as budgets and requirements dictate while also extending the life of their existing analog surveillance systems."

www.infinova.com Ifsec, Hall 5, Stand F10

5 MP Network Camera

Axis Communications introduced 5-megapixel fixed network cameras with HDTV 1080p performance, precise iris control for optimal image clarity and H.264 compression. The indoor Axis P1347 Network Camera and the outdoorready Axis P1347-E model are suitable for use at airports, banks, shops, for city surveillance and any application that requires coverage of a large area or extremely high image detail. "The indoor



and outdoor Axis P1347 cameras are optimized to provide exceptional performance for demanding surveillance applications," says Erik Frännlid, Director of Product Management, Axis Communications. "An Axis P1347 camera can cover a large area due to its high resolution and can take the place of several standard cameras. With narrower viewing angles, the camera can provide extremely good detail for identification purposes and for defining distant objects. Axis P1347/-E cameras will be part of our successful Axis P13 Series and will provide all of the series' unique, easy installation features and sophisticated functionalities."

www.axis.com

Ifsec, Hall 4, Stand E90

Precise Iris Control

Kowa Company and Axis Communication have introduced the "P-Iris" to improve the image quality of fixed network cameras in a range of lighting conditions. The product addresses the issue of blurring which can occur when working with megapixel or HDTV cameras using sensors with smaller pixels. P-Iris lenses also pro-



vide better depth of field. The lenses are suited for both indoor and outdoor video surveillance applications where excellent image quality is required. The lens uses a stepper motor that automatically and precisely regulates the iris opening to enable better contrast, clarity and resolution. Without this facility, resulting images can either be blurry or overexposed. In addition the lenses are also able to capture objects in focus, which are at varying distances. This makes it useful for car parks or areas with long corridors such as schools and hospitals. Before the P-Iris was developed, lenses with an adjustable iris lens were either manual or auto-iris lenses. A manual iris lens can be inadequate in situations where the light levels are constantly changing, whereas there can be issues of diffraction and blurring with an auto-iris lens. The P-Iris addresses the shortcomings of both and provides improvements in contrast, clarity, resolution and depth of field. In conditions where there is a lot of light the lens limits the closing of the iris to avoid blurring, this can be a real problem for cameras that use DC-iris lenses in combination with megapixel sensors that have small pixels. Furthermore, there is no ND-Filter incorporated into the lens for better resolution. www.kowa.eu Ifsec, Hall 5, Stand A40

IR corrected Multi-Megapixel Zoom lens

Kowa is introducing an IR corrected Multi-Megapixel Day & Night Zoom lens. This 15x Multi-Megapixel Zoom lens is suitable for cameras with a resolution of up to three Megapixel. Due to improvements in optical lens design and mechanical 3-cam construction, the new zoom lenses will maintain an extraordinary resolution



from the centre to the corner over complete zoom range. LMZ0812AM-IR is designed for 1/2" sensors with zoom range between 8 mm up to 120 mm with an F-stop of F1.8. It is available with standard video iris, auto-iris DC and as three motor versions. The IR corrected Multi-Megapixel Zooms are matching with special applications in the ITS market, for advanced boarder surveillance and other high-end requirements. These lenses are mechanically robust, shockproof and highly resistant against vibration.

www.kowa.eu Ifsec, Hall 5, Stand A40

Varifocal Lens at Ifsec

At Ifsec 2010 Pentax will present a varifocal lens without the loss of focus while zooming – the TS3VP213ED-M. For the first time the company combines the size and cost of a Varifocal with installer friendly zoom lens functionality and the addition of 1.3 megapixel resolution. The Varifocal Plus is a solution for IP cameras solving the unique installation issues these cameras have with short latency and lower frame rates when trying to set the lens angle on install. The 1/3" CS mount lens has a focusing range of 2.6–8 mm, covering the most common focal length range required in the industry. The DC iris has a maximum optical aperture is F1.3. Due to the patented tracking focus mechanism, the company provides a solution to the problem of defocusing during setup. The lens meets the need for better image clarity, higher resolution and even better depth of field while saving on install time and hassle.

www.pentax.eu Ifsec, Hall 5, Stand F60



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COVER STORY

One **Panasonic**, IP Migration and SmartHD

Panasonic's New HD Concept with the 3rd Generation of i-Pro Network Cameras

When Panasonic System Solutions and Panasonic Communications Company merged to become Panasonic System Networks Europe (PSNE) in January, not only the idea of "One Panasonic" for the security market was born. The amalgamation of experience and expertise from both parts of the company support Panasonic's strategy to unite communications and security networking products. IP Migration is a strong trend in the industry and with the merger it is Panasonic's goal to drive a strong competitive edge for the company and their customers through the delivery of products that are designed for the new network age. With this background, it was more than exciting for a selected group of Panasonic's global partners to see for the first time the presentation of the 3rd generation of i-Pro Network products and the new SmartHD concept in Tokyo in March during the Security show.



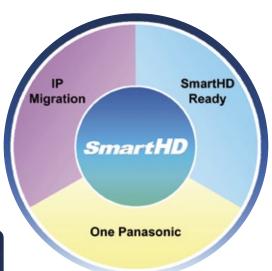
i-Pro Series 3rd Generation

Based on the new SmartHD concept Panasonic launched the 3rd generation cameras of the i-Pro Series. All cameras following this concept will deliver Full HD pictures superior to standard security cameras and will combine the advantages of high resolution video with smart and intelligent tools to help their customer's individual needs. For the retail business e.g. security cameras are used not only for surveillance, but also for marketing purposes where higher quality of services is required. To meet the demands there, Panasonic's new camera lineup with the i-Pro SmartHD concept is ideal.

Panasonic starts with box type network cameras that ensure high compression by H.264 high profile format: The WV-SP306, WV-SP305 and the WV-SP302 are scheduled for release in June. In addition, Panasonic also releases fixed dome network camera equipped with 3.6 variable focal auto iris lens, the WV-SF336, WV-SF335 and the WV-SF332 in July.

SmartHD Cameras Based on the UniPhier Platform and New Sensors

All the new i-Pro SmartHD cameras are equipped with Panasonic's proprietary platform UniPhier. With its H.264 high profile format, the transmission of 1,280×960 pictures at 30fps or 720p HD



video (1,280×720) at 30fps is possible. Two streams of H.264 encoded video can be transmitted simultaneously. For example a 1.3 megapixel 30 ips recording at a Panasonic network recorder is possible, while for a multi-screen display, another video stream can be transmitted by VGA resolution. This reduces the total usage of the network bandwidth. With the combination of a newly developed 1/3 MOS sensor and 3D Digital Noise Reduction, 0.3 lux high sensitivity in colour is realized. The new i-Pro Smart-HD cameras are also equipped with Panasonic Super Dynamic technology and a face recognition capability. With this combination, faces can be detected automatically even under strong backlight condition and the face can also be seen clearly with Super Dynamic technology. Furthermore, the new i-Pro SmartHD cameras have succeeded in reducing the power consumption by 45% compared with the conventional models.

IP Migration Made Easy

Panasonic does help its customers to migrate from analog to IP and has develop three valuable tools to for that purpose: New video encoders, coax converter and the IP Matrix Server software. The latest i-Pro Series of Network Video Encoder, the WJ-GXE500, are set for release in May 2010. The new four channel real-time network video encoder integrates four analog cameras at a time into an IP-based video surveillance system. Like the new network cameras, it is also equipped with the UniPhier system which





enables the system to deliver superior images with the highly efficient H.264 video compression. Panasonic WJ-GXE500 can deliver multiple video streams simultaneously from each video channel at full frame rate. Furthermore, its cable compensation function offers high resolution images even in the long distance cabling situation. The WJ-GXE500 can control analog PTZcameras. For Panasonic's analog PTZ cameras, it can send PTZ commands over the coax, making additional cabling for the PTZ control redundant. It also supports Pelco-D protocol in order to make it possible to control other manufacturer's analog PTZ camera by a RS485 serial command. The face detection capability has a smart ability to detect human faces automatically. The system detects up to eight faces and sends that information to the head-end system as a meta-data. Combination of this Face Detection capability and Panasonic's other unique technology, various application are available for security surveillance purpose and business marketing purposes as well.

The IP Matrix Server Software was designed for the smooth migration from analog to IP. The software integrates video streams from analog cameras into an IP network and combines them with streams from IP cameras. The flexible system design allows IP and analog devices to be controlled seamlessly and to build even large scale systems without a device license fee or the



need for a big video management software solution.

Reduce the TCO: SmartHD Ready

Knowing that the initial costs of IP devices are still expensive, Panasonic launches the SmartHD ready concept to assist a smooth and cost efficient migration. The SmartHD Ready concept is tailor-made for small enterprise solutions e.g. in the retail business. Up to 16 cameras can be connected (and are supplied with energy) via a Power-over-Ethernet-Hub to an i-Pro SmartHD recorder. The system guarantees a simple and smart set up: An HD monitor displays the situation and there is no need for a PC and video management software. Although simple to install, the SmartHD ready concept allows real time face recognition for up to eight registered faces and offers several energy saving modes to

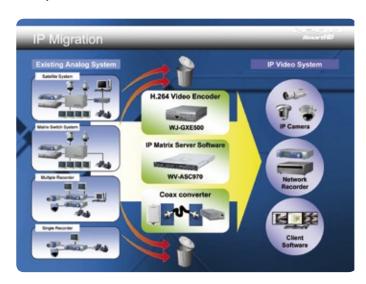
operate the system. Panasonics' experts have calculated that already the installation costs are significantly lower than usual IP and analog systems. For a 16 channel installation, the operation costs per year of a SmartHD ready installation are only a fraction of the costs a normal IP installation costs the owner and they are even lower than a standard analog installation of the same size.

For the customer the installation of a Smart-HD ready system means a smart investment with a low total cost of ownership. At the same time the customer is offered the full advantage of an HD IP system that meets the highest quality requirements and includes all the Panasonic features that make the difference:

- High resolution that allows identification
- Superior low-light performance
- Wide dynamic range for difficult light conditions
- On-device intelligence like face recognition capability
- VRS (Variable Resolution at Specified Area) to save storage space

▶ C O N T A C T

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CCTV

A Lasting Legacy

Bringing Analog Technology into the World of Networked Video



Rather than force security managers to choose between an IP-based or an analog-based video surveillance system, video encoders – sometimes referred to as video servers – offer a way to merge the two technologies into a single solution and enable the transition to IP. The advantages are multifold: not only can a company extend the useful life of existing investments while reaping the many benefits afforded by IP-based technology, but the solution creates a future-proof platform for ongoing surveillance initiatives

Video encoders basically convert an incoming analog video signal into a digitized video stream that is identical to one coming from a network camera. The resulting data stream, compressed through a video compression standard like Motion JPEG or H.264, is transmitted over the data network and can be fully integrated into the network video system to achieve scalability, openness and cost efficiency.

The most common video encoder is a standalone system with a single or multi-channel (typically four) connection to analog cameras. Of the estimated 40 million surveillance cameras installed around the world today, approximately 95 percent of them are analog. Considering that the average lifespan of those cameras is five to seven years, much of that technology is still in good working condition. So for businesses considering an upgrade to newer network technology, there are sound fiscal reasons for wanting to incorporate existing analog cameras in their migration strategy.

These types of encoders operate most efficiently when positioned close to the analog cameras. They are typically used in situations where a few analog cameras are placed in a remote facility, or where the setup is some distance from the central monitoring room. High-density rack solutions with blade versions of the encoders are more prevalent in larger, centralized video surveillance installations where analog cameras and coax cabling are already installed.

IP Technology for Enhancing Analog Cameras

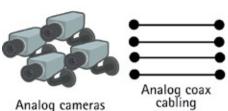
Video encoders provide a multitude of advanced functions that can enable analog cameras in a hybrid system to support many of the features and functions otherwise limited to network cameras. For instance, many video encoders offer pan/tilt/zoom (PTZ) control so that a user can redirect an analog PTZ camera over the network by moving a computer mouse or joystick. If the video encoder supports Power over Ethernet (PoE), both the encoder and the analog camera connected to it may receive power through the same cable used for data transmission. This provides substantial savings because it avoids the cost of installing separate power cables.

Some video encoders support image finetuning as well as aspect ratio correction to avoid image distortion when viewed on a PC screen. High-performance video encoders deliver full frame rate (30 fps in NTSC and 25 fps in PAL) in all resolutions for all video channels. Furthermore, unlike analog transmissions, digital images retain their quality regardless of the distance the signal needs to travel. Some higher-end encoders have the ability to provide multi-stream encoding for each channel. For example, you can create two different compression and resolution streams for a single analog camera's transmission. One stream of a few frames per second could be sent for remote archiving while a full frame rate, high-resolution stream could be stored locally.

A video encoder can provide video motion detection to all the attached cameras as well as camera tampering alarms, event management and integrated audio support. The technology also provides a foundation for more intelligent video features such as license plate recognition, people counting and other analytics.

Future-proofing the Surveillance Network

Introducing video encoders into an analog solution improves flexibility and scalability, as well as providing a logical and cost-effective migration path from legacy to IP-based video surveillance. The video encoders facilitate one of the more appealing features of an IP-based system: the straightforwardness of adding new cameras and moving them around. Instead of running lengths of coaxial cable to a new location, an analog camera can be easily plugged into a vid-









Computer with video management software

SECURITY



eo encoder at the new installation site. And, since video recording and management in an IP-based solution are based on standardized computer hardware, businesses can choose best of breed from a multitude of competitive vendors whenever more storage is needed or parts of the infrastructure require upgrading.

The open standards platform provides other advantages as well. Video encoders employ universally accepted compression standards such as Motion JPEG, MPEG-4 or H.264, which consume less bandwidth and require less storage capacity for archiving. Not only do the standards avoid the dead-end options created by proprietary technology such as digital video recorders (DVRs), they open up the surveillance system for integration with other technology such as building management and entry control systems as well as point-ofsale registers. This flexibility increases the value of the surveillance investment to the company's overall operational success.

Migrating from analog video to IP-based surveillance can be fraught with challenges, especially in enterprise installations where companies are looking to protect their large investment in analog cameras. By introducing video encoders into an analog video surveillance configuration, security managers can maintain their legacy investment while acquiring a host of useful network-enabled features. This hybrid stepping stone towards an open IP-based video surveillance solution is virtually future-proof because it allows users to add network cameras to the system at their own pace while experiencing all the benefits of a networked operation along the way including high-resolution video with progressive scan, megapixel and HDTV image quality.

High Performance, Single Channel Solution

The palm-sized, standalone Axis M7001 is designed for installation close to an analog camera. It supports all types of analog cameras, including PTZ (pan/tilt/zoom) and PTZ domes, and is ideal for small and large analog video installations, especially where an IP network infrastructure is already in place. Its small size also makes it ideal for use in discreet surveillance applications, for example in retail stores and banks and in camera housings.

This device can deliver two simultaneous video streams, one in H.264 and another in Motion JPEG. at full frame rate in all resolutions up to D1 (720x480 in NTSC, 720x576 in PAL). The H.264 video compression format drastically reduces bandwidth and storage requirements without compromising image quality. Motion JPEG is also supported for increased flexibility. The video encoder also provides video motion detection. The M7001 is powered over Ethernet using the same cable as for data transmission, which simplifies installation.

Designed for improved service-ability and quick replacement of units, a rack solution can hold up to 12 interchangeable and hotswappable blades - there is no need to power down when installing or changing blades. A Server Rack is a 19-inch cabinet that provides 12 slots for the Axis blade video servers. It provides network, serial communication and I/O connectors at the rear of each slot, and a common power supply for the blade video servers.

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KEY MANAGEMENT

The **Safe** for the **Key**

A Key Management System for a High-security Hospital

A typical gatehouse at a large factory or other establishment always needed a large back wall on which to hang all the various keys that were used throughout the site. But even with the advent of card and token access solutions, some keys are still essential today to secure certain equipment, vehicles, rooms and document cabinets. So management of keys has moved into the 21st century and now utilizes RF technology to keep track of them. In a hospital environment, this advent from deister electronic has provided a neat and cost-effective solution to a tiresome task.





A high-security hospital in Haar near Munich, Germany, houses and treats psychologically ill criminals. In this environment, both staff and other patients would potentially be at risk should a patient not be contained within the secure ward and therapy areas. There can be up to 120 patients present at any one time, spread over 6 wards, and security there is of the utmost importance of course.

For this reason, no keys are allowed to leave the premises and, until recently, the issuing and recovery of keys were done manually and took a considerable amount of time and effort. In particular, certain departments, such as the forensic department for example, needed complete control of their own keys, granting access only to a special group of people of their choice. Signing for keys on a list and returning them afterwards used to be a time-consuming and not really secure process, and always demanded the presence of another person – a security guard or watchman – who had the 'master' key.

Keeping Tabs on Keys

The solution to such intense key management was found in an integrated Proxsafe installation. This system enables full issuance control and accounting of all keys, 24 hours a day, 7 days a week, 365 days a year. A particular benefit of the online Proxsafe system is that it can provide detailed reporting and enables the hospital to track the movements of any key either by time, by date or by user. Each key is attached to a unique electronic tag using tamper-proof steel rings and a single-use seal. The tags are inserted and mechanically locked into a proxSafe cabinet until authorized for use. They are watertight and can be used over and over again. As the tags communicate by RF with the cabinet, there is no wear and tear on contacts and a little dirt does no harm. 125 kHz credentialing technology has also been embedded in the hospital's tags for added security.

Simple and Effective

The effort required to administer the keys has now been greatly reduced. It is no longer necessary to keep a book and get everyone to sign keys in and out again, and sometimes even to find out who still has the missing key. As a result, the efficiency of the security staff and security in general have both been significantly improved.

For this particular installation in an unusual environment, all that was required to fulfill the hospital's requirements was one Proxsafe maxx cabinet. This can hold up to 32 keys or key bundles and can be simply expanded as needs grow by adding more cabinets up to a maximum configuration of 32,000 key slots in one system. The self-closing roller shutter system protects the whole cabinet from unauthorized access and, almost coincidentally, also saves working space as there are no large doors to swing open.

Access to the keys is now controlled by the Proxsafe Commander software. This provides easy key management as well as allowing simple alterations to authorization levels. The same software also calls up the usage reports to be printed. Open interfaces are available, which permit the transfer of data to other management systems over a network, thereby enabling the integration of the proxSafe system into a global security concept.

Ifsec, Hall 4, Stand B35 and B40

►CONTACT

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CONTROL ROOMS

Palatial **Displays**

Video Technology Protects the Prestigious Seif Palace



The Seif Palace was built by order of Sheikh Mubarak the Great and has been extended over the years. It is a focal point of Kuwait City and it is seen as an integral part of Kuwait's history and progress. It is the official palace of the State of Kuwait, with the reigning monarch's head-quarters, the Crown Prince's office, the Prime Minister's office as well as other government offices too. So, not surprisingly, security is critical, it is not open to the public and photography is prohibited.

It was in 1904 that the decision was taken to build a palace overlooking the sea (al seif). It therefore became known as Al Seif palace and is a perfect example of Islamic architecture with original Islamic mosaic tile work. The overall area of the palace is 450,000 m² including an artificial lake, a dock for the yachts and a land-

ing field for helicopters. 52 cameras have been installed in a security installation in order to assure 360° coverage of the sensitive outdoor areas. Operators can control all units remotely from the control room from where about 300 cameras are managed. Security is now maintained, and the Palace is under complete surveillance.

The control room is equipped with technology from eyevis. 12 Eye LCD 4600W display modules are installed there and provide high quality, high contrast, high brightness and high resolution images. Each display has a screen diagonal of 46" with 16:9 aspect ratio and native WXGA resolution (1,366x768 pixels). The Eye LCD4600M/W displays have an ultra-thin and slim design that is typical of TFT-LCD displays. The specific requirements of the Seif Palace have been met by installing a combination of an eyevis netpix controller (type NPX-3812XE-V32-D12-L2 X6E) and Eyecon basic wall management software.

▶ C O N T A C T

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BIOMETRICS

A Machine for **Growth**

In Conversation with Josef Mühlbauer, CEO and Founder of Mühlbauer AG

With solutions for the production and personalization of cards and passports as its prime business, the Mühlbauer Group also supplies systems for microchip die sorting, solar cell manufacture and electronic component tracking. Their 'Precision Parts & Systems' division produces highly accurate components, not only for company-internal use but also for demanding customers in aerospace, motorsport and medicine. Matthias Erler of GIT SECURITY questioned the key figure behind the company name about the company's philosophy, products and potential.



GIT SECURITY: Mr Mühlbauer, the company you founded, Mühlbauer AG, is a classic example of a successful German medium-sized enterprise. You could describe yourselves today as worldwide market leader in innovative system and software solutions for the production and personalization of plastic and chip cards, passports and RFID applications. What do you consider to be the main reasons for this international success?

J. Mühlbauer: Short and sweet: innovation, stamina and the principle of 'everything from one source'. Our markets are filled with highly technical machines and systems. It is hard to believe how much high-tech is necessary to manufacture a plastic card and to personalize it. Of course, there are simpler machines, but the higher the production volume and more complex the card, the more important it is to have the right

partner at one's side. Innovative thinking and dealing are the main maxims in our business because this market moves at an impressive speed and only an innovative company has a chance to survive. Add to this the subject of 'everything from one source': these days many companies talk about restricting themselves to their core competencies and letting the rest be done by partners, but exactly this approach often carries risks. Our customers appreciate being able to get a complete solution from one supplier - software and hardware. One point of contact for all matters, a competent service team with locations around the world and no interfaces between different systems are just some of the advantages when, like us, everything is inhouse. The flexibility and speed with which we can react to enquiries should also not be forgotten. This extends from R&D through the production process to installation and long-term support. Our customers become our partners, and our success over 30 years justifies this approach.

Could you give us an overview of the most important products currently in your portfolio?

J. Mühlbauer: Our personalization solutions are of course an important pillar of our company's success. Suitable software systems are necessary for each line of business so that the total package is right. Currently the market for 'Smart ID' is very interesting; the whole world expects high security from identification solutions. That begins with biometric data collection and ends with automatic border crossing. But as I already mentioned, it is important that one supplier can provide everything. From that point of view, all of our products are important.

In which sectors do you find your most important customers?

J. Mühlbauer: Although our customers, or partners, come from the most varied sectors, two fundamental types can be recognized: on the one hand we work a lot together with the card production industry and high-security printers; on the other hand, there are governments and



security institutions, in particular when it's to do with ID cards and passports. State projects usually have a higher volume, but business with them is of course more protracted and complex than when we simply sell a machine. But I can promise you one thing: we will do everything we can in the future to provide cost efficient, innovative products. It is very important that we satisfy all our customers, not only from a technological standpoint but also with regard to our service.

Where are you currently directing your energies with regard to new product development – could you give us an outlook?

J. Mühlbauer: The markets are highly competitive and are continuously changing. We were able to survive the recent commercial crisis with just a few scratches, thanks to our broad posi-

tioning, but this has nevertheless led us to focus more strongly on the efficiency of our solutions. A pre-condition for this is a correspondingly high quality. Many customers concentrate on the socalled 'cost-per-card' relationship because they also have to remain competitive. Therefore we develop machines and systems together with our customers with the aim of maintaining an optimum product margin whilst still achieving a cost-oriented price. This should not be confused with the word "cheap". We work to high quality standards and deliver a tailored total package of consultancy and service that is unique worldwide - every customer gets exactly what he wants. We have developed our new 'ecoline' for standard solutions because machines for standard processes are built here in large numbers and can be offered at prices that can even keep pace with the cheap products that are flooding the market, but without any loss of quality. If a customer requires a special solution tailored to his specific needs, that is no problem.

If you could sum up your company philosophy towards your customer in just a few words, what is the most important aspect for you?

J. Mühlbauer: I can explain our philosophy using very few key words: speed, quality and absolute customer focus — that is what drives us forward. Every individual employee is working towards the same goal: to keep the customer satisfied, now and in the future. In my opinion, that is only possible if you can offer the customer everything that he needs, that is, a complete solution.

Mr Mühlbauer, in recent years you have expanded your presence abroad a lot – in the USA but also in Slovakia and in Malaysia. What is happening in these subsidiaries and why have you chosen these locations?

J. Mühlbauer: Our motto is "Always close to the customer". We are flying our flag locally. The locations that you mentioned are currently our technology centers for the American and Asian markets. Our head office in Roding in Bavaria serves as the central point for our European markets. But the Mühlbauer Group is also represented in over 30 other locations worldwide with sales and service centers, for example in India, South Africa, Brazil or China. Each of these technology centers has a well-equipped demonstration room because we cannot only convince people by using words, so we let our customers experience the products and solutions live. Regional presence is simply essential for our complex and consultancy-intensive products.

You currently have around 2,000 employees worldwide – geographically, where do you see the most important growth markets of the future?

J. Mühlbauer: We are currently concentrating strongly on Africa and South America. Those are two regions with significant growth potential, not only in the field of security technology but also in card production. The semiconductor industry is concentrated in Asia, above all the mass production, but the USA is not to be underestimated. Although RFID technology is still in its infancy, we are convinced that nothing can stop it. The emphasis here lies in industrialized countries with a large logistics volume; the rationalization potential here is enormous. Basically, we are so flexible that we can quickly adapt to changing market conditions. An example of this is our market entry in the solar industry with automatic manufacturing solutions for flexible solar cells - definitely a growth market of the future.

And finally: you have founded the Josef Mühlbauer Trust. What are the objectives of this Trust? Can you give us some examples of its activities?

J. Mühlbauer: I always consider commercial success as a responsibility toward people. With this Trust we have the aim of taking responsibility for people who are not enjoying the sunny side of life and who need our help. We therefore support both national and international social and charitable projects, and the annual high point is certainly the Mühlbauer Run. All income from this is given to the Trust, which is then able to support specially selected projects. As a result of the 5th Mühlbauer Run in 2009, the Trust was able to hand over a donation of a total of 40,000 Euro. The Run will take place on the 12th June this year, by the way. Our donation target this time is for the expansion and redevelopment of a school in Uganda to make it easier for children to learn, safe from environmental influences, and to open up better future opportunities for them.

▶ CONTACT

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With the VCC-HD2500P, since autumn 2009 the Sanyo range has included a 4 megapixel Full HD day/night camera equipped with a 1/3 inch Progressive Scan CMOS sensor. The camera is part of the new Sanyo range of state-of-the-art IP cameras. The manufacturer has equipped the camera with a whole series of functions, e.g. movement sensor, face recognition and private zone masking. The image data can also be saved on an SD memory card inside the camera.



Performance

Performance assessment when used with 1,000 Lux

In comparison with the reference image, at the maximum resolution tested, the Sanyo VCC-HD2500P showed a brilliant colour range and good to very good sharpness. In addition, the device showed a very good contrast ratio.

Performance assessment when used with less than 1,000 Lux

At a Lux value of 100, unsharpness was detected for moving objects in the lower half of the sequence. This did not deteriorate significantly down to 10 Lux and resulted in a slight loss of recognition of moving objects at approx. 2.5 Lux. At 0.5 Lux there is slight image noise, although this is only noticeable after switchover from day to night mode.

Performance assessment in backlight situations

The compensation time with backlight is approx. 2-3 seconds and shows adequate dynamic characteristics. The size of the cone of illumination extends from the edge of the backlight to just over the edge of the backlight and shows no traces or only slight traces of blooming.

Performance assessment in use: Bandwidth measurement

On closer examination of the characteristic curve, the H.264 codec becomes clearly apparent. Depending on the lighting conditions and the movement in the image, a slight increase or tendency was detected. The codec was used with a variable bit rate, which achieves a higher quality with overall less memory space. An MJPEG stream produces an average data quantity of approx. 20 Mbps with comparable quality. For the H.264 stream a bandwidth of 5.72 Mbps was measured, corresponding to a reduction of over 70%.

Technical data for the camera test

Manufacturer	Sanyo
Model	VCC-HD2500P
Firmware version	CAM MAIN Ver. 1.00-06 (091120-06) CAM SUB Ver. 1.00-00 (090910-00) NET MAIN Ver. 1.00-03 (091110-00) NET SUB Ver. 0.00-00 (090722-00)
Distance from test chart	1.00 m
Lens used	4–10 mm; F1.8; P-Iris; Tamron
*Focal length set	approx. 6 mm
*Compression method	H.264
*Resolution	1,920 x 1,080 (16 : 9)
*Compression	50 %
I-frame interval:	1 second
Max. stream bandwidth	Unlimited
Measured frame rate	25 fps
Average bandwidth	5.72 Mbit/s

Comment

Assessment for various lighting conditions

Criteria Lux values	1000 Lux	100 Lux	10 Lux	0,5 Lux	0 Lux + *BL1
Colours	2.5	2.5	2.5	b/w	b/w
Contrast	2	2	2.5	3.5	b/w
Sharpness	2	2	2	3	2.5
Motion blur	2	2	2.5	3	2.5
Image noise	2	2	2	4	2
Compensation time with backlight	1	-	-	-	3
Behaviour with backlight	-	-	_	-	4

Assessment was performed according to the rating system of 1 (very good) to 6 (unsatisfactory). By setting various parameters on the camera interface itself, it is possible to obtain an improved image quality.

Conclusion

The Sanyo VCC-HD2500 is a high-performance megapixel IP camera which delivers up to 30 images per second with H.264 compression. The HD camera enables flexible installation thanks to the Focus Assistant, test monitor output and many configuration options. As with the VCC-HD2100 / VCC-HD2300 models there are many image processing functions such as 3D-DNR, Slow Shutter, AGC and white balance. Further features of the VCC-HD2500 include the possibility of data storage on an SD memory card (SDHC) and integrated video/movement analysis. Possible fields of use of the Sanyo high performance camera include e.g. airports, casinos, banks or department stores, in which high quality images are required.

^{*}Average value

Day/night switchover was carried out manually at 2 Lux

^{*}The camera was integrated into the test system with the "default" settings. The settings were modified according to the test criteria listed above.

Test the Best!

GIT SECURITY Camera Test in Cooperation with SeeTec





In Focus: Axis P1346

The Axis P1346 is a 3 megapixel HDTV camera with day/night functionality, which can produce several H.264 video streams. Streaming with several views enables several separate video streams from zoomed sections to be transferred together with a scaled-down complete overview. The camera is equipped with the precise aperture control function "P-Iris", which is intended to achieve higher contrast, better clarity, higher resolution and greater depth of field. Intelligent functions such as extended video movement detection and detection of attempts to tamper with the camera, e.g. obstruction or spraying, complete the range of functions.

CAMERA TEST

Performance

Performance assessment when used with 1,000 Lux

In comparison with the reference image, at the maximum resolution tested, the Axis P1346 showed a brilliant colour range and good sharpness. In addition, the device showed a very good, slightly amplified contrast ratio.

Performance assessment when used with less than 1,000 Lux

Even at a Lux value of 250, unsharpness was detected for moving objects in the lower half of the sequence. This did not deteriorate significantly down to 10 Lux and resulted in a slight loss of recognition of moving objects at approx. 2.5 Lux. Image noise, which among other things depends on the compression, occurs at 40 Lux.

Performance assessment in backlight situations

The compensation time with backlight is approx. 2 seconds and shows adequate dynamic characteristics. The size of the cone of illumination extends from the edge of the backlight to over the text of the test chart and shows slight traces of blooming.

Performance assessment in use: Bandwidth measurement

On closer examination of the characteristic curve, the H.264 codec becomes clearly apparent. Depending on the lighting conditions and the movement in the image, a slight to large increase or decrease was detected. The codec was used with a variable bit rate, which achieves a higher quality with overall less memory space. An MJPEG stream produces an average data quantity of approx. 38 Mbps with comparable quality. For the H.264 stream a bandwidth of 2.99 Mbps was measured, corresponding to a reduction of over 90%.

*Average value.

Technical data for the camera test

Manufacturer	Axis
Model	P1346
Firmware version	5.06
*Distance from test chart	1.00 m
Lens used	2.4–6 mm; F1.2; 1/3" megapixel
*Focal length set	approx. 6 mm
*Compression method	H.264
*Resolution	2.048 x 1.536 (4 : 3)
Compression	30%
I-frame interval:	1 second
*Set stream bandwidth	unlimited
Measured frame rate	20 fps
Average bandwidth measurement	2.99 Mbit/s

- Day/night switchover was carried out manually at 2 Lux
- Maximum frame rate of 20 images/sec at full resolution (3MP)

Assessment for various lighting conditions

Criteria Lux values	1000	100	10	0,5	0 Lux +
	Lux	Lux	Lux	Lux	*BL1
Colours	2	2.5	2.5	b/w	b/w
Contrast	2	2.5	3	3	b/w
Sharpness	2	2	2.5	3	2.5
Motion blur	2.5	3	3	4.5	2
Image noise	2	2	2	2.5	2
Compensation time with backlight	- \	-	-	-	3.5
Behaviour with backlight	/ - \	-	-	-	4

Assessment was performed according to the rating system of 1 (very good) to 6 (unsatisfactory). By setting various parameters on the camera interface itself, it is possible to obtain an improved image quality.

Conclusion

The Axis P1346 is a network camera for fixed installation, offering excellent H.264 performance and featuring a robust design. It provides video quality of up to 3 megapixels with progressive scanning into several individual H.264 and Motion JPEG video streams. Installation is simplified with the use of the focus assistant, remote control of the image size and the pixel counter. With the aid of the Remote Focus function, the camera can be conveniently focussed with the software during installation. The Axis P1346 provides high performance video surveillance both indoors and outdoors. It is a good solution for the surveillance of retail shops, airports, stations, schools and universities, as well as government and industrial buildings.

^{*}The camera was integrated into the test system with the "default" settings. The settings were modified according to the test criteria listed above.

Integrated RFID

The registration of a filled supermarket trolley directly at the checkout via RFID transponders, without customers having to place all items on the conveyor belt, is still a long way off. The idea of integrating RFID data into video images however has now



become a reality for the first time. This application has been made possible through the close cooperation between Dallmeier and Initpro. The two firms collaborate within the Network for Innovative Logistics. The Network for Innovative Logistics (NIL) has made it its goal to provide comprehensive IT logistics solutions and services for manufacturing, warehousing and transportation. The initiative is sponsored by the Federal Ministry of Economics and Technology. In all seven companies as well as both of Regensburg's universities pool competences from all areas of the logistics chain and together develop new solutions and innovative products. Within the scope of the NIL project the two companies work on the integration of RFID data into video images. RFID (Radio Frequency Identification) makes it possible to transmit data via radio waves, contact-free and without intervisibility.

www.dallmeier-electronic.com

Ifsec, Hall 5, Stand G10

New Product Generation Live at Ifsec

Seetec showcases the recently released product generation Seetec 5.3 on Ifsec Birmingham. Together with Eyevis, a manufacturer of large screen displays, and Advancis, which is developing the Winguard building management application, Seetec can be found at booth D145 in hall 4. Visitors will see the enhanced performance of the new software release 5.3 using 64 bit technology. Furthermore, they will gain



insight into multi streaming, allowing an even more flexible use of the software by using up to eight independent data streams per camera in parallel. Thus, for the live view a fluent high-quality image stream can be displayed (e.g. H.264 with 25 fps) while for the server-based image recording another format with a lower frame rate can be used (such as MJPEG with 2 fps). Seetec 5.3 does not only optimize the transmission of image data but simplifies the analysis perceptibly by applying intelligence. Especially in large installations, images in live view can't be analyzed in a reasonable way as the awareness of the security staff decreases after only a short period of time. The company's Intelligent Video Analysis disburdens the employees and can enhance the detection rate drastically. It is available in two packages being showcased at the Birmingham fair: The Analytics Premium Module offers popular analytics features such as areas of interest, trip wire, object classification and a set of detection rules. With the Analytics Enterprise Module, the full spectrum of intelligent video analysis can be used. In addition, it contains rules for the detection of objects being left behind or taken away and for loitering detection. "By the use of intelligent video analysis, IP based video surveillance solutions can play out their full strengths," says Kaj Svenningson, chief officer international expansion at Seetec. "Thus, Seetec partners can offer even more powerful solutions in the future."

www.seetec.de

Ifsec, Hall 4, Stand D145

Energy Saving Reader

Paxton has developed its Energy saving reader to accept Mifare tokens. This makes the reader a diverse, cost efficient product that is suitable for a wide range of environments. The reader accepts an authenticated Mifare card to switch on power to utilities and electrical equipment. Once a card has been detected, the reader toggles a relay that switches on lights, heating and air-conditioning, amongst others. This energy saving concept works because a user has to remove their proximity card from the reader in order to move freely around a site. www.paxton.co.uk

Ifsec, Hall 5, Stand E20

Nedap Exhibits at Ifsec 2010

Nedap will attend the International Fire and Security Exhibition and Conference, If-sec. The company will present its Graphical Alarm Handler, a web-based tool to handle alarms in AEOS. This powerful application gives security managers a clear overview of the security status of the premises; thanks to the graphical representation of buildings, floor plans and alarm points, they have a convenient instrument to visualize and control alarms. Everything the security manager should know, such as the status of doors, armed intrusion points, alarm points, etc. is immediately visible in the Graphical Alarm Handler. The Ifsec will also be the opportunity to get to know the AEOS feature Visitor Management, a tool to make a professional and hospitable impression on visitors. The module provides a way to implement the company's security policy and to obtain reliable information on visitors and visits. With Visitor Management it is possible to record the relevant data of a visitor in the AEOS system, allocate the visitor to a contact person and enable an employee to assign a badge to the visitor with the applicable (visitor) authorization template. From then on, all badge movements are logged and can be tracked.

www.nedap.com Ifsec, Hall 4, B65

CCTV Refined

Dedicated Micros will present its Camvu ICR (Integrated Camera Recorder) at Ifsec in Birmingham. This concept, that was first presented at the end of 2009 combines a megapixel or standard IP camera with a powerful enterprise class video server – all in one compact package



— to deliver robust, failsafe, local recording and video management at the edge of a customer's network. Available with megapixel, VGA or analogue resolution, the recorder offers one day of full rate recording thanks to 32 GB of onboard solid state storage provided by a micro SD card or similar. In addition, it has the potential to access further tiered storage, including a locally connected Sata drive via ATA over Ethernet (AoE). Using the AoE protocol allows the highly secure, point-to-point, transfer of video files to a separate storage device, for backup and long-term archiving. www.dedicatedmicros.com

Speedgate

Fastlane Glassgate 250, manufactured by Integrated Design, will be on display on their stand B127 in Hall 4 at Ifsec. This speedgate combines Infrared detection sensors with glass barriers. Its bi-directional swinging glass barriers intelligently control traffic flow whilst maximizing throughput and the Infrared tailgate detection offers excellent protection against intruders. The speedgate has a number of enhancements over previous models,



these include: Lane configuration: The new pedestal design offers the option of single or dual glass barriers that open flush with the sides of the pedestals in the lane thus maintaining the narrow footprint and elegance synonymous with the Fastlane brand. Any number of disabled access compliant lanes can now be added to a bank of lanes, with the new dual barrier interlane system. Speed of throughput: The standard lane configuration allows for two glass barriers per lane, opening in a 'door like' motion fast enough for even the speediest of visitors, made possible because of the slimmer glass panels.

www.fastlane-turnstiles.com

Ifsec, Hall 4, Stand B127

JERRA Soft

Vari-Focal Lenses

Tamron USA announced the development of two 1/3"-format 2.8-8 mm F/1.2 Vari-Focal lenses (Models M13VM288IR - manual iris; M13VG288IR - DC auto iris) that are compatible with 3-megapixel-day/night cameras and deliver full high-definition 1,080 p images over the entire focal length range, both in visible and near-infrared light ranges. As a result of the rising demand for higher image quality in security systems, requirements for higher pixel sensors are increasing. In addition to this trend, the demand for megapixel day/night cameras for night time surveillance is also increasing. To meet the trends and needs of the market, the company's engineers challenged themselves to expand the specifications of megapixel camera lenses and have successfully developed two new, state-of-the-art Vari-Focal lenses that are compatible with even 3-megapixel-resolution systems and at the same time correcting the shift in focus for the day/night function. The lenses will e.g. be presented at Ifsec 2010.

www.tamron.com

Ifsec, Hall 5, Stand B45

Smart IP Access Reader

Suprema launches Xpass access controller, an IP based RF reader/controller. Packed in a sleek and compact black body, the Xpass features PoE (Power over Ethernet), waterproof, network interfaces and built-in controller functions bring significant cost savings in installation & maintenance by leveraging existing network. The access controller provides easy installation and network connectivity by TCP/IP (or RS485) interface, Wiegand as well as an internal relay for direct lock interface. By adopting PoE, the Xpass completes true IP-to-the-door access control which means only single CAT5/6 cable is required for both network and power. The design of Xpass is focused on satisfying both aesthetic and practical aspects. It features rounded edges and straight lines with silver finish with the body covered in black.

sales@supremainc.com

Ifsec, Hall 4, Stand E50

Enjoy Take-off



We love to travel - we hate traveling. Long lines in the airport departure lounges and detailed baggage checks give us a feeling of lost time because we're just waiting. But stops at airports along the way are unavoidable when you're flying round the world. The 'Enjoy Take-Off' guide from the designer, Alina Kaempf, wants to change our view of airports. In her London Stansted guide, she shows the airport as an exciting place where there's lots to experience. You'll enjoy your time at the airport more if you follow her lead.

a@february-13th.com

Energy Efficient Access Control

Idesco's Eco20 product platform readers offer high security, low power consumption, improved connectivity with other products and smaller carbon footprint through sustainable manufacturing materials and methods. The readers are used in access control systems, which require a high security, versatile configuration options and low power consumption. The products have been in use since autumn 2009. The product platform Mifare Desfire readers have the highest level of security with the use of full Advanced Encryption Standard (AES) or Triple Data Encryption (Triple DES) communication between the identification cards and the reader. The readers are more energy efficient as they use 60 % less power compared to their previous sister products and most of the other products available on the market.

www.idesco.com

Ifsec, Hall 4, Stand F9

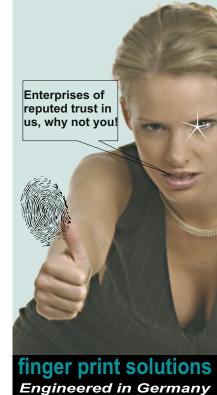
Homeland Security

Telefunken Racom's iRG-4G supports from QPSK to 32APSK modulation and dynamic ACM (Adaptive Coding and Modulation) on the outbound path and 8PSK modulation with FEC of 2/3 and 8/9 on the inbound path. 32APSK modulation combined with dynamic ACM improves the link efficiency by more then 50% compared to DVB-S2 9PSK modulation and CCM. Furthermore the iRG-4G dynamic ACM enable it to have link availability up to 100% regardless of weather conditions. This userfriendly terminal adapts to the user's changing needs, allowing to seamlessly upgrade system capabilities over satellite using a simple software "key". This scalability allows to make a minimal hardware investment, and to move to a more powerful solution later without having to purchase additional hardware. www.tfk-racoms.com

Access System Solutions

Bosch Security Systems is extending its portfolio of proximity readers with two new models. The AYZ12 RFID (Radio Frequency Identification) proximity reader is capable of reading cards and tags up to a range of 60 cm. This unit offers an attractive, competitivelypriced solution for security situations that require a relatively compact, longrange proximity reader. It can be used for access control of parking garages or gates that open to allow authorized vehicle access. The reader is compatible with all standard passive EM (Electronic Marin) type credentials and features a 26-bit Wiegand output format. This allows it to work with most common controllers such as the Bosch Access Easy Controller (AEC) and Access Modular Controller (AMC). It can operate over a maximum cable distance from the controller of 150 m. The reader also features optical tamper protection. Its low power consumption means it can be powered directly by the controller, eliminating the need for a separate power

www.bosch.com



FOD[™] Housing



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Identity Management

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www.jerra.de

Virtualization Competence Brings Real Benefits

Back in 2008 when Geutebruck achieved Microsoft Gold Partner status, it had already demonstrated exceptional expertise in producing software solutions and in designing and implementing networking infrastructure solutions. In January 2010, following more specialist training for staff, and the submission of references from satisfied customers whose video security systems were produced using the Microsoft 'Hyper-V' tool, Geutebruck added another feather to its cap - and 'virtualization' to its range of competences. The 'Hyper-V' virtualization tool enables Geutebruck to generate multiple virtual servers on a single piece of hardware, and to link them into clusters with so-called 'failover' functionality which ensures that if one server fails, another automatically and instantly takes over without any detrimental effect on the service of the overall system. Geutebruck installations are already in service with five virtual GeViScopes all operating in a single hardware device and even more are possible - provided VCA is not being used extensively and thus competing for processing capacity. "Virtualization offers end-users significant advantages," explains Carmen Lahr, Geutebruck marketing director. "Not only does it enable redundancy and high availability to be achieved without hardware duplication; but using hardware resources more efficiently like this reduces the installation's need for space, power and cooling, and that cuts the system's overall energy consumption by 30-40%."

www.geutebruck.com

LED-based Illuminator

Bosch Security Systems announced the launch of the Aegis Super LED, a high performance LED-based illuminator with rugged IP66 rated construction and a sleek design. Available in 850 nm and covert 940 nm infrared options, it is designed for the most demanding security applications. Well suited to integrate with the manufacturer's Dinion cameras, the illuminator features the company's Constant Light technology, which automatically controls



and adjusts light output to compensate for LED degradation. LED degradation can seriously impact on an illuminator's effectiveness. The optical output of a typical LED illuminator degrades by up to 10% within the first few months and continues to rapidly decay over the specified life of the unit. LED degradation causes reduced illumination range and poor night-time image quality, and has been a problem highlighted by security consultants, installers and end users. Now with Constant Light technology, the high quality, high definition nighttime surveillance images achieved at the point of installation are guaranteed to be the same throughout the five year lifetime of the product.

www.boschsecurity.com

Fully Automatic Pitch Settlement

Hinn has introduced a cash machine to supplement its Pollux system. The machine is versatile in parking lots and parking garages of hotels, hospitals, and on camping sites and truck rest areas. Day visitors pay at the cash machine and automatically receive an access permit for the pre-paid period, while long-term tenants are permanently registered in the license plate recognition system. The visitor is identified by the license plate and the barrier will open automatically as long as the release is valid. Entrance and exit are possible several times in the prepaid period.





Identity Management

Digital applications for the new German ID card, new mobility concepts and innovative display technologies were the focus of this year's Cebit presentation by Berlinbased Bundesdruckerei. "As one of the world's leading suppliers of high security systems, we believe that one of our most important tasks is to securely connect different worlds," says CEO Ulrich Hamann. The new German ID card will be introduced in November 2010. The so-called eID service is needed in order to open a bank account online or to enter into a mobile phone contract using the new ID card. This service checks identity data and authorization certificates and thus ensures that data can be exchanged securely between online services and their customers. www.bundesdruckerei.de

License Plate Recognition

Hinn has expanded its license plate recognition specifically to control barriers and gates. "Pollux" is a smart module that fit easily into any barrier cases. It handles the entire license plate recognition, and opens the barrier or gate only if the plate has a release. The release list



can be fitted depending on the extension step of up to 200/800/6000 license plate. The module can be via LAN connection and the included PC software to use and easy for nearly every application configure. If requested, the barrier control is delivered with a special barrier beam camera. It can be retrofited easily at each barrier. The integrated LED lamp and a special LED control enable dependable recognition - also when plates are lightly soiled or dented, at night and with turned on floodlights. www.hinn.eu

Intelligent Outdoor Camera

Sightlogix introduced the latest addition to its line of Sightsensor cameras. The Wideview Sight Sensor intelligent outdoor camera incorporates a 105-degree field-of-view lens to detect intruders around buildings, entranceways, and other areas that require close-in, buffer zone security. Like all elements in the Sightlogix Outdoor Video System, the cameras provide a high probability of detection, low nuisance alarm rates and can operate in all weather and climate conditions. "Sightlogix continues to innovate to increase our customers' security while lowering their overall costs," said John Romanowich, President and CEO. "The same capabilities that give our perimeter security cameras their long-range performance and accuracy are translated into wider area coverage, while leveraging the benefits of geo-positioning and automated PTZ intruder tracking." www.sightlogix.com

Card Hot Stamping System

Mühlbauer has introduced a new product of its Ecoline series: the card hot stamping system CHS 200. This machine is a cost-efficient solution for applying hologram and signature panels from reel onto cards in ID1 format. Further security features can also be applied. The system's maximum speed is 3,500 UPH. Cards can be processed on the front and back by handling each card two times through the machine. Optionally, the system can be extended with a second application module and a turning unit to process the front and back of the card inline in one cycle. This is suitable e.g. for EMV and credit cards. Both modules can also work independently from each other.

www.muehlbauer.de



www.hinn.eu

Fire Alarm Mimic Display Technology

In the event of fire, a clear indication of the origin of the incident is vital. Kentec's Sigma Matrix range of Conventional Fire Alarm Mimic Display panels, based on the Syncro Matrix Mimic Display System, uses flexible fiber optic light guides to illuminate areas on a floor plan, laid over a high resolution grid. As this system dispenses completely with wiring, it allows indicators to be moved, removed or added on site. On this conventional version of the Sigma Matrix, all indicators can be configured to operate via switched positive or negative inputs providing compatibility with a wide range of input/output boards. This allows Sigma Matrix Mimic Displays to be designed and supplied to replace any existing mimic, when an update is required, regardless of fire alarm panel manufacturer. www.kentec.co.uk

Contactless Government ID

As governments, financial institutions and other highsecurity conscious institutions require additional security features on their contactless ID documents and cards, KSW Microtec reports an increase in demand for its proven prelaminate Thinlam. Issuers of highly secure cards and documents of all types, increasingly demand the addition of new security features. In order to achieve this, multiple layers need to be added and large memory security microcontrollers need to be integrated, while maintaining ISO standards for maximum card thickness. The polycarbonate inlay is already widely used for this purpose, due to its producible thinness down to 200 μm and proven ability to support the manufacturers of contactless documents with multiple layers and security features. Furthermore, special construction techniques provide a mechanical stability due to a patented working technology for both the chip and the antenna. www.ksw-microtec.de

Tags in Black and Blue



CDVI launches the new tag "Metal". It is distinctive by the elegance of its design by combining for the first time a metal and polycarbonate casing. Technical innovation is the use of a metallic ring that can crimp the badge and ensure its strength over time. The badge comes in two versions: As a blue tag with 13.56 MHz Mifare (Ref: Metal), and as a black tag with 125 kHz (Ref: Metal1). www.cdvi.com

New High End IP Video Server and Storage

The GeViStore-IP/8Bay is Geutebruck's new redundant storage server system for stand-alone and networked IP applications requiring high performance and high survivability. Though compact (only 2 HU), it has a built-in redundant power supply and a level 5 RAID which can store up to 14 TB. By



running the GeViScope video management system and Windows 2008 Server operating system on the latest server hardware, it can record 800 fps while streaming 800 fps; has virtual matrix functionality for analog, IP, standard CCD and megapixel cameras; and processes up to 1,600 fps for display in D1 resolution on another computer. It has a hardware surveillance function and remote server management for fast efficient maintenance. www.geutebruck.com



Hybrid HDR Digital Recorder

Abus Security-Center unveils its Eytron Hybrid HDR Digital Recorder supporting up to 16 analog channels and up to eight IP cameras. The record-



er supports network access for up to 64 users in parallel. Users benefit from a total ease of operation thanks to the status light indicators, voice output for the most important functions and audible warning signals. Service stations, multi-storey car parks or large building complexes are security-sensitive areas that demand constant surveillance. Comprehensive networking functions such as live views, playback, export and remote configuration are only a small part of the functionality offered by this high-end recorder. Video signals are compressed using the H.264 format. This format, also known as AVC or Advanced Video Coding, is the current basis of the MPEG4 standard, and ensures the best levels of quality with a low storage requirement. Duplicate storage of video and audio data on up to eight SATA hard disks provides maximum security. www.abus-sc.com

Thermal Imaging with H.264 Compression

Pelco introduced the Sarix Thermal camera product line, designed to provide customers with advanced network video security functionality in a high-performance thermal imaging product. "The power of Sarix imaging science has allowed us to produce a thermal camera product line with industry leading image quality and system performance," says Dan Scroggins, Senior Product Manager. The imaging platform offers a high level of image quality with up to 640 x 480 resolution, 25-micron pixel size and H.264 compression. Compared to MPEG4 compression, H.264 offers much better compression and is more efficient for optimized video quality and minimal bandwidth consumption. The cameras are compatible with both Pelco and third-party analytics. www.pelco.com



PoE Switches Support Clusters of Survellance

GarrettCom Europe has responded to the evolving needs of the video surveillance and access control sectors with the launch of the PES42P hardened Ethernet edge switch. The new device provides connectivity for clusters of surveillance or access control devices, and combines this with fibre optic connectivity to the control network for high-bandwidth transmission of video data. All this makes the product ideal for applica-



tions such as surveillance and security, allowing combinations of up to four cameras and access control devices to be simply connected into the network via a single PES42P switch. Further, the PES42P is one of GarrettCom's growing range of PoE switches, supplying power to connected devices and so eliminating the need for costly cabling back to a central power source. Compact, rugged, and hardened for harsh industrial environments and outdoor use, the PES42P edge switch provides a total of six Ethernet ports. Four ports are always RJ-45 for PoE. The remaining two ports can be user specified as two 100Mb fibre ports, or one fibre and one copper port, or two copper ports. The ports which supply power feature an auto-sensing algorithm so that they provide power only to attached 802.3af PD devices. The PES42P includes Link-Loss-Learn, enabling it to be used in self-healing and redundant LAN structures.

Ifsec, Hall 4, Stand H150

High Speed IP Dome from Geutebruck

Geutebruck's new IP camera, the Vipcam-GNSD671, is a high speed, high-resolution dome camera for indoor applications. The compact, high performance, day/night camera has a 23x optical and a 12x digital zoom, a wide dynamic range, position-related text insertion, eight privacy zones and a tough polycarbonate dome. It moves to fixed positions at up to 400°/s with 0.225° accuracy and supports 25 fps video in QCIF, CIF, 2CIF and 4CIF with normal remote control. The GNSD671 is suitable for use with Geviscope and Reporter based CCTV systems.





Active UTP Transceiver Hubs

Altronix is showcasing its next generation of active UTP transceiver hubs. Hubwayex 16 and 32 port units allow for the transmission of groups of four video sig-



nals over each CAT5 cable. A single port unit is also available. Features include automatic picture and gain control with video polarity compensation. The series "was designed to meet the growing demand to transmit high quality video over long distances using inexpensive twisted pair CAT5 cable from a centralized location," said Alan Forman, President of the company. The product line includes: The Hubwayex 16 Active UTP Transceiver Hub — it allows for the transmission of up to 16 video cameras over four CAT5 cables. The Hubwayex32 Active UTP Transceiver Hub provides the transmission of 32 video cameras over eight CAT5 cables, and pass through RS422/RS485 data. The units provide picture and gain control, as well as automatic video polarity compensation.

www.altronix.com

Alarm Signaling a

Chiron Security Communications has introduced its "Iris" Secure Apps system. It provides additional information for monitoring centers, allowing greater control over their networks. For security installers and end-users advantages are e.g. significant cost savings, greater efficiency and security, plus improved resilience of both dual and single path alarm transmission. Ease-of-use is improved for the monitoring centre with a new intuitive



operator interface, which allows indepth access to all aspects of the secure alarm signal, with more information and tighter control. The system features individual, selfcontained Apps which control functions such as authorization, dialer templating, system analysis & reporting. This gives monitoring centers access to real time and histori-



cal data that they haven't had before, so they can resolve potential signaling situations quickly and easily, without relying on third parties, and significantly improve service delivery. One of the most important advantages is secure ease of access. The system allows the monitoring centre to securely hand-over important tasks directly to installers.

www.chironsc.com

www.garrettcom.co.uk

5 Megapixel Lenses for Day and Night

At the Ifsec, Fujinon will put the brand new 5 Megapixel lenses for Day/Night into focus. Two models for 2/3" will come up, both offering high resolution of 5 Megapixel and IR correction for applications by daylight and IR: The HF-35SR4A-1/SA1 with a focal length of f=35mm and F2 and the HF50SR4A-1/SA1 offering f=50mm and F2.8. Iris con-



trol is done manually or automatically by DC signal. Due to the combination of high resolution and IR correction these lenses are best suited for CCTV and security as well as for traffic applications - such as automatic number plate recognition. Fujinon will also show the continuously growing product range of 3 Megapixel Vari Focal lenses for 1/3" and 1/2", including the latest model for 1/2" sensors and a focal length range of 8~80m: DV10x8SA-1/SA1. Further the Megapixel Zoom lenses from Fujinon will be presented Ifsec. The D32x10HR4D with a focal length of 10-320 mm, and the D32x15.6HR4D (focal length 15.6-500mm) will be further product highlights, offering high resolutions of 1.3 megapixels for a maximum sensor size of 1/2".

www.fujinon.de Ifsec, Hall 5, Stand E25

New Readers for EM Proximity Credentials

Bosch Security Systems is extending its portfolio of proximity readers with two new models. The AYZ12 RFID proximity reader is capable of reading cards and tags up to a range of 60 cm. This new unit offers an attractive, competitively-priced solution for security situations that require a relatively compact, long-range proximity

www.boschsecurity.com



reader. It can be used for access control of parking garages or gates that open to allow authorized vehicle access. The reader is compatible with all standard passive EM (Electronic Marin) type credentials and features a 26-bit Wiegand output format. This allows it to work with most common controllers such as the Bosch Access Easy Controller (AEC) and Access Modular Controller (AMC). It can operate over a maximum cable distance from the controller of 150 m. The new AYCF64 provides an effective solution for indoor and outdoor access systems where PIN and proximity credentials are required. The reader features a rugged red backlit keypad with advanced access control features in an aesthetically-designed housing. The AYCF64 offers programmable PIN with 4 to 8 digits and proximity transmission formats for 125 kHz EM type RFID cards and tags.

New IP Varifocal Camera

The IPD-552 is a new ONVIF conformant IP Video Camera, bringing the total number of Lilin open standards compliant products to eleven. Utilising H.264 compression and delivering high frame rates even across 3G networks, the Mini Dome is compatible with many third party devices and software applications, including Milestone VMS systems, GVD HD NVRS and the Apple iPhone. Supplied with free NVR management software, live video can also be viewed on any PC running Internet Explorer. Featuring a Day/Night CCD, the Camera switches to monochrome when light levels drop below a certain level. The increased sensitivity of 0.05 Lux allows the camera to operate in poor conditions, while a varifocal 2.8-12mm lens enables the focal length to be adjusted to meet individual requirements. The IPD-552 features universal indepth configuration menus which are now standardized across the Lilin IP range. Equipped with PoE but with the option of supporting 12Vdc locally, it also benefits from an audio encoder, 3-way gimbal and dual H.264 and JPEG streaming. The Camera is supplied in a screw-on design optically perfect dust resistant cover, perfect for simple and secure installations.

www.lilin.co.uk

ONVIF Video Management Software

IndigoVision will be demonstrating a number of new products at this year's IFSEC show, including a technology preview of their ONVIF Video Management Software 'Control Center'. This can display video from many leading camera manufacturers including Sony, Axis, Bosch and Panasonic. This underpins IndigoVision's support for the IP Video open stand-



ards. The ONVIF specification will ensure interoperability between network video products regardless of manufacturer. IndigoVision will be showcasing its NVR-AS 3000 standalone 'Green' Network Video Recorders (NVRs), which can deliver highperformance IP Video storage solutions with extremely low power consumption and heat dissipation - typically less than 10W per Terabyte of useable RAID 5 storage. Each NVR can record video and audio from up to 64 cameras and playback up to 20 video streams at full framerate simultaneously. Several models are available with different storage capacities from either integrated fixed disks or hot-swappable removable drives. All the NVRs use the latest hard drive technology from Seagate, with disks that have been developed for continuous video surveillance recording. Also on show will be new additions to IndigoVision's range of High-Definition (HD) IP Cameras, which are guaranteed to never drop a frame, under any circumstances. The combination of direct sensor to network hardware encoding and advanced H.264 compression technology allows IndigoVision to offer this unique guarantee and deliver outstanding video quality at extremely low bit rates. This both reduces the network bandwidth and video archive storage and allows HD cameras to be used on everyday CCTV applications.

Infrared Megapixel lens!

M13VG288IR

Sensorsize 1/3" Focal length 2,8-8 mm F-stop F/1.2

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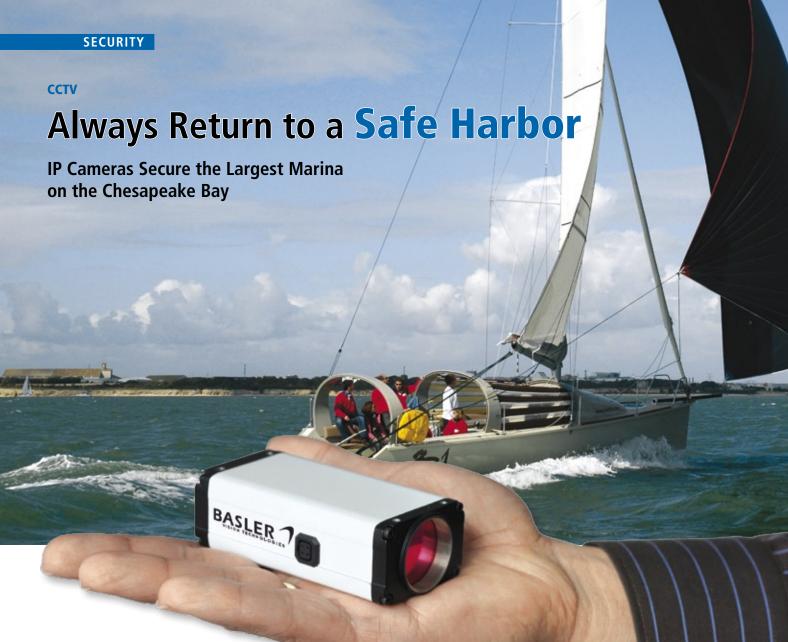
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Whenever expensive items are involved, security is always a major concern. If you've fulfilled a childhood dream of owning your own large boat, you would prefer to keep it safe from theft and vandalism, even when you're not there to keep an eye on it yourself. Herrington Harbour North Marina in Maryland had Basler IP cameras installed to protect their grounds and everything on them.



The two Herrington Harbour Marinas — Herrington Harbour North and Herrington Harbour South — were established in 1978 from what was formerly known as the Rose Haven Yacht Club. With their 1,200 boat slips, the two resorts form the largest marina on the Maryland shore of the Chesapeake Bay. These eco-lifestyle marina resorts provide the closest deepwater access to the bay from the Washington, D.C. metropolitan area. Herrington Harbour North is located at the former Forces of Nature Harbour in Deale and can accommodate up to 1,500 boats on land.

With millions of dollars worth of boats on the marina property, Herrington Harbour North needed a secure, reliable, and durable video surveillance solution for crime prevention. One of the main requirements for the surveillance cameras was that they should provide absolutely clear images so that people's faces and the license plates of cars driving through the parking lots could be recognized — both during the day and at night. Another prerequisite was the stor-

age of video footage for six months. With these demanding requirements concerning image quality defined, a comparison of analog and digital cameras proved that a digital surveillance camera system was the only logical choice.

Smart Filter

After some disappointing experiences with a competitor's camera, Herrington Harbour North decided to use nine Basler BIP-1300c-dn cameras because they offer excellent image quality and true day/night capability. These cameras are equipped with an automatically retractable IRcut filter. This means that they use a mechanism which places an IR-cut filter in front of the sensor in day mode and removes the filter in night mode. The retractable filter allows the camera to properly represent colors using the visible light available during the daytime and to produce



high quality black and white images when there is only infrared light available at night. These characteristics made the Basler BIP-1300c-dn ideal for surveillance of the large marina area, even with minimal lighting.

With the camera's megapixel resolution, image details such as faces and license plates can

easily be distinguished. In case a crime such as property damage is committed, this wealth of detail facilitates identification of the criminals. In addition, the cameras have a built in motion detection feature. When motion is detected, an alarm can be issued to the system operator via email, FTP, HTTP, or an electrical output signal. An individual "alarm buffer" can be enabled on each of the video streams transmitted by the camera, and each buffer can store several seconds of video. An alarm buffer can be set up so that images are captured and stored both a few seconds before and a few seconds after an alarm event is detected. This means that an operator can play back the buffer and easily see what triggered an alarm event.

Camera installation was completed by Surveillance Secure, a security services provider based in Rockville, Maryland. The Basler IP cameras were placed in protective outdoor housings to protect them from adverse weather conditions, dust, and moisture. Existing poles at Her-

rington Harbour North were used to install the cameras and to supply them with power. A number of transmitters and receivers were installed to transmit the images from the cameras back to the marina office.

Compact Archive

Video footage from all of the cameras installed at the site must be stored for a period of six months, and this requirement results in a large amount of stored video data. To lower storage costs as well as bandwidth consumption, the Basler BIP-1300c-dn allows multiple streaming using several MJPEG streams and an MPEG-4 or an H.264 stream at the same time. This means that several streams can be set up for different purposes. For example, one stream could be set with a low image size for the operator to view, and a second stream could be set for the maximum image size and only recorded by the network video recorder (NVR) if motion is detected. On each stream, the user can also adjust the output scaling, frame rate scaling, AOI, and encoder mode to reduce the amount of bandwidth required by the camera.

With the new Basler IP cameras installed, boat owners at the Herrington Harbour North marina have peace of mind. They can rest assured that their property is protected at all times and that they will always have a safe harbor to return to.

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With growth rates of 60% solar power plants are one of the most rapidly expanding segments in the energy sector. But how can the huge open-air solar parks – which can quickly reach a size of several hectares – be effectively protected against vandalism, sabotage and theft? viasys intelligent video has developed a concept for this scenario that has been implemented at numerous sites.

"Power from the desert" is a catchphrase that has been dominating the media since the middle of last year when leading energy and financial companies signed plans to establish the Desertec Industrial Initiative (DII). Its aim is to supply around 15% of Europe's electricity by 2050 from gigantic solar power plants to be built in the Sahara Desert at a cost of around 400 billion euros. Annual growth rates of over 60% in Germany, for instance, demonstrate that solar power is on the advance in Europe and is developing into an increasingly relevant factor in energy supply. Electricity from this renewable energy source would cover a major part of Germany's power consumption on very sunny days in the near future and we expect to see the expansion of solar power systems in similar magnitude during the coming years. This confronts operators of solar parks with the issue of providing effective protection against sabotage, vandalism and theft. A solution providing extremely efficient surveillance of very large areas is offered by viasys.

Intelligent Video System

A large photovoltaic power plant is approximately 6.5 hectares in size, has at least 16,000

solar modules, and has a peak production of 2.7 megawatts. Depending upon the site's location, this is enough to supply electricity to approximately 1,200 households. A fence with a length of nearly 1,200 m will protect such a solar power plant. "Our concept for these large scale sites



consist of an intelligent video system directly connected to a security control centre," says Hannes Ackfeld, CEO of viasys, while explaining the surveillance solution. "The video analytics software we install is of vital importance. It must exclude false alarms triggered by animals or weather but at the same time detect relevant incidents like intruders or vehicles reliably and then directly transmit the alarm images to the connected monitoring centre in order to start the predefined intervention." The viasys analysis software permanently checks the delivered images for movements and analyzes them using various complex software filters. Different parameters are used to customize filters for different situations. An alarm is only triggered in response to a clear motion sequence. In concrete



terms, this means that the screen remains black until a real alarm is triggered (e.g. persons, vehicles), and the corresponding video picture is then displayed with the motion marked by a detection frame just like a pop-up. Hannes Ackfeld explained the advantages of the system: "Security personnel in the monitoring centre are considerably relieved from strain because their attention only has to be drawn to genuinely significant events. And most importantly: an alarm is triggered before damage is caused".

"Videor Reacted to Our Requirements Highly Individually"

A total of 24 mast-fitted cameras with image transmission to viasys are installed along the fence of a solar park. A high-quality Samsung day/night camera with a Fujinon lens fitted in the eneo VTL-WWA Weatherproof Housing are installed. The protective housing is compliant with IP66 and comes with a window heater, thermostat and wall mount as standard, to ensure reliable all-year operation even in extreme weather conditions. An eneo LED infrared illuminator fitted to the mast for each camera allows 24/7 surveillance of photovoltaic power plants. Customized manufacturing is one of the services offered by Videor, the components were delivered to viasys GmbH preassembled and programmed. Hannes Ackfeld described the cooperation with Videor by saying "Videor reacted to



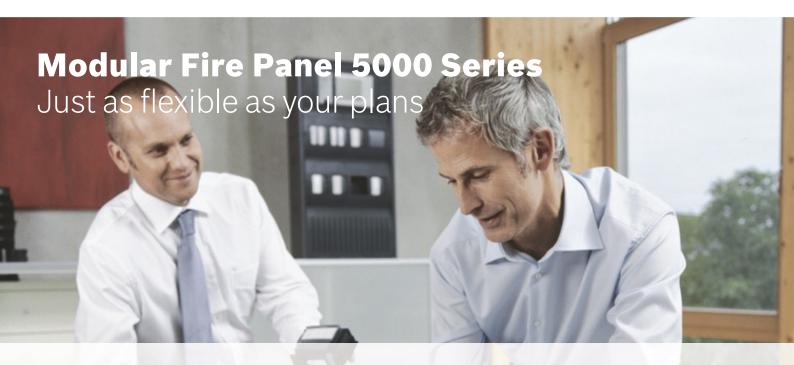
our requirements highly individually. The cameras were delivered to us preinstalled in their housings with full cabling, configured back focal distance and were set up configured according to our requirements. This made on-site installation very easy and considerably shortened the installation time."

Protection of More than 60 Sites

viasys has already protected over 60 sites with more than 160 megawatts output with this system in Germany, Spain, Italy, France and the Czech Republic. The large number of installations is a proof of the reliability of the system. viasys customers include, BP solar, Deutsche Solargesellschaft, E.ON, Juwi Solar, Phoenix Solar, Solarworld and Sunpower. And the next projects are queuing up for implementation. With no end in sight to the solar power boom, it must be assumed that these projects are far from being the last.

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CCTV

Light Work

Photovoltaic Solar Plant Applies Thermal Imaging Cameras to Protect the Perimeter

Over the last few years, environmental awareness has increased drastically. Instead of relying only on fossil or nuclear energy for generating electricity, renewable energies have come into play. Power is generated from natural resources such as wind, water, tides, geothermal heat and solar energy. One of the main solar plants in Spain is the Abertura Solar Park. It represents an investment of over 225 Million Euro and FLIR Systems have provided a total surveillance solution consisting of thermal imaging cameras, network video storage and video analytics.

With the help of photovoltaic cells, commonly called solar panels, light can be converted to electricity. Although Germany and Japan have long led the field in solar thermal energy production, today Spain is the hub for solar energy activity. Abertura Photovoltaic Solar Plant, the

largest installation in the world with dual-axis solar trackers, is one of the main sites in Spain and located in the Spanish province of Cáceres. The location is considered ideal because it gets almost 2,000 net hours of sun per year and the land is very flat, which makes it ideal for the installation of photovoltaic solar panels.

The solar trackers of the 23.1 Megawatt (MWp) Abertura Solar project make the panels move both north, south, east and west. They assure that the solar panels are always ideally positioned towards the sun, which drastically increases the plant's capacity. Abertura Solar consists of more than two hundred 115 kilowatt (kWp) blocks and was completed in July 2008. The entire installation covers an area of more than 2,000,000 m².

Generation and Distribution

Vector Cuatro is an active company in Spain for strategic and financial consulting on investments in solar photovoltaic power plants. Currently, Vector Cuatro manages and/or administers nearly 90 MW. It is the only management and administration company that has participated in the complete process of promotion, development, structuring, financing and start up of photovoltaic installations for third parties. Today, Vector Cuatro manages 13 solar power plants in Spain, for nine of which the management started after the plants had been constructed. The solar plant in Abertura, was developed and constructed entirely under the supervision of Vector Cuatro.

Just as in many other similar installations, the energy generated by the photovoltaic cells is first inverted from DC to AC. Each of the over two thousand trackers generates 11.5 kWp at 400 VDC. Once the 400 VDC has been inverted to AC, a step-up transformer increases the voltage to 20 kV in order to transport the electrical energy. Finally, this energy is uploaded to the distribution grid of the local utility at 45 kV.

At Abertura, the utility that is uploading the electricity to its grid and distributing it is Grupo Iberdrola. Following a period of strong international expansion, Iberdrola has established itself as one of the four largest energy companies in the world by market capitalization. The group



has made a major commitment to the use of cleaner technologies, becoming a world leader in solar and wind energy and is now one of the companies with the lowest CO2 emission levels in the electricity sector. The company's Substations department also designed and built the transformer substation at Abertura.

An investment of 225 Million Euro Needs to Be Protected

"The development and construction of the Abertura solar power plant has been a giant project", explains Borja Escalada, Managing Partner of the Vector Cuatro Group. "We were involved in every step; acquiring the land on which the plant is installed; purchasing and installing the photovoltaic cells and solar trackers and all the other aspects. The entire solar plant represents a total investment of approx. 225 million Euro. Depending on the climatic conditions, we generate electricity for about 25 million each year."

"It is clear that an investment of 225 million Euro needs to be protected. There are several threats for an installation of this size. First of all, photovoltaic panels and our huge network of copper cables are expensive and therefore theft is a big concern. But the site not only needs to be protected against theft: we need to protect potential thieves and other intruders against themselves as well because the site contains high voltage installations and people gaining unauthor-



■ Abertura Photovoltaic Solar Plant spans a surface of over 200 hectares. More than 132,000 solar panels on 2,112 solar trackers with a total installed power of 23.1 Mega Watt peak.

ized access might seriously hurt themselves or, even worse, be killed", continues Escalada.

"Also for Iberdrola it is important that the plant is well protected", says Esther Muñoz, Technical Maintenance of Iberdrola Ingeniería Y Construcción. "Power generating facilities are vital for a country's economy and are a potential target for terrorism. If anything should happen to the plant due to sabotage or terrorism we would lose a part of our grid, so that we would not be able to serve our customers. This needs to be avoided at all times."

Long Perimeter

"Securing a perimeter of almost 9 km is however not an easy task", says Escalada. "During the daytime we are not too worried since we have a maintenance crew of 4 or 5 people that are constantly walking around on the site. Security at night, however, is a different issue."

"Although we have experience with this in the other solar plants we are managing, Abertura was the first plant at which we could decide for ourselves what the best security option would be. The other plants started to be managed by Vector Cuatro after the security system had already been decided and contracted."

"We looked at several possibilities. Conventional CCTV with lighting or infrared illuminators, walking patrols, passive IR barriers and thermal imaging cameras. After careful evaluation of each option, we have chosen thermal imaging cameras for multiple reasons. The entire perimeter around the plant cannot be lit up; this would be far too intrusive for the area in which the solar plant is located. Installing and maintaining light is also an expensive exercise and uses a lot of power."

No Options

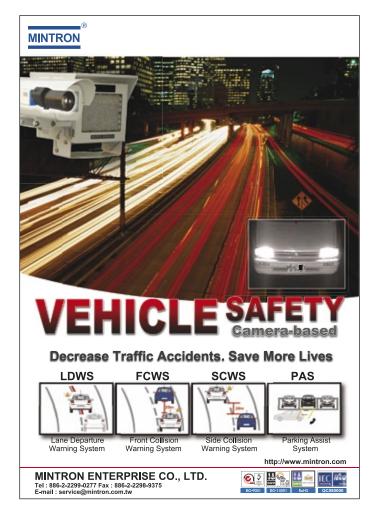
"Infrared illuminators are also expensive. Furthermore, infrared illumination does not offer the same range performance as thermal imaging cameras at all. This means that more cameras would need to be installed and more civil works be carried out." "Although we have a fence around the entire perimeter, this is not the best solution either. The fence is relatively weak since we need to have large holes in it so



Schematic overview of the thermal fence installed at Abertura.

that animals can get through. But even if the fence were stronger, we would still need to install detectors. In order to see if an alarm is false or not, a CCTV system with lights and infrared illuminators would need to be installed anyway."

"Finally we looked at patrolling the area. But apart from the fact that guards are a costly exercise, we recognized another, more unexpected problem. Abertura is a sandy location where a lot of dust can be produced. Patrolling the entire area means that the guards would need to drive around in a car during the night as well, which would produce a lot of dust. This might not seem to be important, but it is: in order to keep the solar panels as effective as possible, we need to remove the dust from them. We currently do this twice a year and each cleaning exercise costs about 100,000 Euro. We estimated that if we had the area patrolled during the night, we would need one extra cleaning per year."



Considering Total Cost of Ownership

"I got in contact with Esteban Ces of Soviter, a FLIR Systems distributor in Spain. He explained to me the concept of the thermal fence and the advantages of using a video analytics solution based on thermal imaging cameras. After a thorough calculation of installation cost, and even more importantly, of the Total Cost of Ownership, we decided to go for this option."

"To protect the 9 kilometer perimeter we have installed 27 FLIR Systems thermal imaging cameras: two VSR-6, six SR-19, five SR-35 and twelve SR-50 create a thermal fence around the solar plant. Two SR-100 thermal imaging cameras, mounted on a pan/tilt were installed separately in addition to this thermal fence. Vector Cuatro also ordered two spare units that can be installed if something should go wrong with one of the thermal cameras. So far, there has been no need to use them", explains Esteban Ces of Soviter.

"We have chosen not only the thermal imaging cameras, but a lot of the other material we needed comes from the same source as well. FLIR Networked Systems, a separate division, provided us with mini servers, input/output boxes, video processing units and network digital video recorders. The software used to manage the entire systems is FLIR Sensors Manager. This out-of-the-box software allows for the easy installation and management of the thermal imaging cameras and other sensors in a TCP/IP network."

The Thermal Fence

"The principle of the thermal fence is quite simple: all cameras are installed along the perimeter. Using the Sensors Manager software we define "trip wires", a video analytics algorithm, to detect if someone is trying to bridge the perimeter. If someone crosses a line which we have set in the video analytics software, a light will start to flash and an acoustic alarm will go off as well. The operator will immediately see the image on his screen of the camera that has created the alarm. He can then determine if it is a false alarm created, for example, by an animal or not. If it is a real alarm and the intruder is not scared away by the light and sound, the opera-



Mr. E. Ces, Commercial Director of Soviter, a FLIR Systems distributor in Spain – Miss E. Muñoz, Technical Maintenance of Iberdrola Ingeniería Y Construcción. – Miss M. Valien, Technical Department, Vector Cuatro – Mr. A. Vilallonga, Vice-President, Flir Networked Systems – Mr. B. Escalada, Managing Partner, Vector Cuatro.

tor will call the police who can be on the scene within minutes."

"25 observation posts are installed along the perimeter. An observation post consists of a fixed thermal imaging camera that covers a certain part of the perimeter, a light/sound beacon and in some cases a CCTV camera that can also be used during daylight."

"An electrical cabinet is installed at each observation post. The video and data of the thermal imaging camera and the CCTV camera are transferred to a mini server. The beacon is also connected via a FLIR input/output box. All signals are converted to TCP/IP by the mini server, and an Ethernet to fiber optics converter ensures that all signals are transferred over the long distance to the control room. Here, the data is put on a TCP/IP network again with a fiber optics to Ethernet converter."

Days and Nights

"A computer running FLIR Sensors Manager is connected on the same Local Area Network (LAN) and displays the images of the thermal cameras. It also enables the setting the required alarm rules which are then sent to the video processing units. They are constantly analyzing the thermal images arriving from the cameras and, if they detect an anomaly, they send a signal to the observation post that is generating the alarm. The Mini Server sends a signal to the

I/O box where a contact closes and a sound/light alarm will goes off. At the same time the operator will get the image of the camera that provoked the alarm on his screen so that he can take the necessary action."

"Finally, in the control room, the nDVRs are connected to the LAN. They continuously record all images from all of the thermal imaging cameras. They have the capacity to store all the images for a period of 15 days, and afterwards they overwrite the old data."

"The combination of the thermal imaging cameras and the video analytics is perfect. During the night there is great thermal contrast between the environment and a potential intruder, which means that we only need two or three pixels to detect something. This means that we can detect potential intruders at an extremely long distance. In fact, thermal imaging cameras provide much more information to video analytics than CCTV cameras."

Thermal Imaging, the Preferred Solution

"We are extremely happy with the thermal fence", says Escalada. "Not only is it a cost effective solution due to the fact that we did not need to do a huge amount of civil works and that we are not consuming a lot of electricity, it is also very effective as well. If I compare this security installation with the ones we have at other solar plants we are managing, I can only say it beats them all. We have practically no false alarms and are able to protect the entire perimeter with just one operator."

"We will definitely choose the same solution for future solar plants that will be constructed, and when the security system in existing solar plants needs to be replaced, it will be with a thermal solution as well", concludes Escalada.

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CCTV

IP Video Secures French Eurotunnel Terminal

IP Video Solution from IndigoVision Upgrades CCTV Equipment to a Higher Specification

In a major CCTV upgrade, Eurotunnel's French passenger terminal has deployed a widely distributed IP Video solution from IndigoVision. Used for security, traffic management and immigration control, the networked CCTV system has transformed Eurotunnel's surveillance operation.

Eurotunnel manages the Channel Tunnel fixed link between the UK and France and operates the Shuttle service for tourist vehicles or trucks. It also shares the track with rail freight and passenger trains passing through the Tunnel. As with any major transport hub, Eurotunnel has a demanding and diverse environment for surveillance and security, requiring a distributed system that can deliver high-quality live and recorded video to many different users located throughout the site. The new 340-camera upgrade, which was designed and installed by IndigoVision's approved Partner, ClearView Communications Ltd, monitors all areas of the operation including passenger terminal, parking areas, loading operation, ticket booths and offices.

"Recent changes in French regulations meant that we decided to upgrade our existing CCTV equipment to a higher specification," said Sylvain Pamart, Chief Project Manager at Eurotunnel. "We knew we wanted to replace the analogue system with a digital virtual matrix to give us the flexibility and scalability required for the new regulations and for future expansion."

Flexible Licensing

The existing analogue system was replaced because it could only record 1fps, SIF resolution video for 3 days, considerably less than the new regulations require. The switching matrix also had little spare capacity and would have been very expensive to upgrade. Eurotunnel now has a surveillance system that can record 25fps at 4SIF for 31 days. In the future, cameras can easily be added at any point on the network, including the latest High-Definition (HD) IP cameras, which can be freely mixed with the existing standard resolution cameras. The hardware footprint has also been considerably reduced, freeing valuable space in the equipment room.

"One of the many reasons we chose Indigo-Vision was their flexible licensing and pricing model," continued Pamart. "The company's Security Management Software is free of charge for viewing camera feeds. We only pay for the channels we record based on the framerate and resolution. Eurotunnel only needs to record at 6fps/2SIF, thereby saving us money; however, should the regulations or our requirements change in the future we can increase this by simply changing the licence."

Operators located in multiple control rooms view live and recorded video using PC workstations running 'Control Center', IndigoVision's Security Management Software. The wide distribution of the system allows these workstations to be located at any point on the network — a feature that Eurotunnel has used extensively. The various control rooms have combinations of standalone workstations with monitors and traditional video walls and are operated by the security and traffic management departments. With the correct permissions any operator can view any camera from any part of the system.

"The features and analysis tools offered by 'Control Center' are excellent," added Pamart. "The user interface is very intuitive, which ensured the new system was quickly and easily adopted by the operators. 'Control Center' software also ensured that Eurotunnel surpassed the requirements of the new regulations, including a full operator audit trail and tamper-proof evidential video."

Video Analytics Helps

Eurotunnel uses advanced analytics to aid their video analysis within 'Control Center'. For example, analytics can be used to automatically detect vehicles moving in the opposite direction to the normal flow of traffic. These powerful functions allow operators to quickly identify relevant video clips following an incident. It was very important for Eurotunnel's IT department to manage a system that was easy to configure and maintain. Using a 'Control Center' workstation located in the maintenance office, the support team is instantly notified of a problem or fault with any component in the system. Video recording is achieved using IndigoVision's standalone Network Video Recorders (NVRs), which are rack mounted in the equipment room. Nineteen 1.5TB NVRs have been installed, together with an additional 3 that are used as backups.

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The biggest concern for owners of retail establishments is stock loss due to shoplifting and employee theft. Insurance companies are now putting pressure on retailers to develop and implement a loss prevention program. CCTV equipment plays a key role in such a program.

The performance of CCTV cameras is generally defined either by overall image quality or the feature set. Regarding image quality, the increased perception of HD quality in consumer markets is definitely having a knock-on effect on the same perception in the professional CCTV market. As HD in the CCTV world has a major impact on bandwidth usage, overall system setup and storage — especially for retail applica-

tions up to 32 cameras – the impact on cost is large when implementing an HD based CCTV system.

In terms of the feature set, TV shows such as CSI have artificially inflated capabilities. However, the available technology is definitely catching up with Hollywood. Bosch Security Systems' latest update of its Intelligent Video Analysis (IVA) software includes a feature called Counterflow. It



can be used in retail environments to detect people or objects moving in a user-defined opposite direction. One application is the detection of hit-and-run actions where people try to leave with full shopping trolleys via the store entrance.

Way To Go

Unfortunately for retailers, a large proportion of loss is due to theft by their own employees. Consequently, great attention is given to the POS terminal area and storage areas. Traditionally POS fraud is fought by surveillance staff monitoring a POS terminal or by manually searching in surveillance video recordings. With Bosch recording solutions, the POS data can be fully integrated with video, thereby connecting the physical actions of the employee to the information entered into the terminal.

In addition, entrances and exits need extra attention as, in some countries, shoplifters can only be apprehended when having the intention to leave the store with stolen goods. This also means that in case of suspicious behavior, a security person should be able to conduct remote surveillance of the checkout proceedings and track them in detail. For this reason, moveable cameras are increasingly being introduced in the retail industry.

There is a slow but steady move towards IP in the retail sector, although its success, especially for smaller installations, depends on true plug-and-play functionality. Many manufacturers are now offering boxed solutions combining recording and management capabilities. Bosch will soon release new firmware that will enable its current Divar Hybrid H.264 recorder to become a true plug-and-play IP system. It will connect IP cameras at the click of a button. Motion fields for the IP devices can also be set up via the same Divar interface without having to go to the IP device itself. This saves configuration time and reduces TCO.

Furthermore, there is an increasing demand to use storage in the camera. Especially for smaller retail outlets, the new Bosch IP Camera 200 Series with built-in SD card storage and free viewing software is a perfect and highly cost-effective surveillance solution.

Combined Forces

IVA can also automate some surveillance work, although in retail only certain applications are considered suitable. Examples are the Counterflow application mentioned earlier; the initiation of an alarm when a certain object in an area is removed; and line crossing, which is when an invisible barrier is crossed, instigating an alarm.

Integration is especially important in larger retail environments, where the Bosch Software Development Kit (SDK) enables straightforward integration into third-party software. Another area of integration is with local access and intrusion systems, which is proving particularly useful in loading docks, warehouses, accounting areas, safes, data centers and security rooms. It not only allows remote viewing and evidence recording but, if needed, remote authorization and control of who enters and leaves a particular area.

Retail applications usually range from four to 64 camera systems. They are normally tailored by solutions consisting of standard (hybrid) recorders that offer limited scalability. IP systems are preferable if a scalable system is required. Bosch offers such systems, ranging from straightforward and affordable recorders for video management and recording to more highly-featured IP solutions.

The overriding challenge in retail security is ease of use, which Bosch builds into all its products. It's particularly important in smaller retail outlets where the owner is frequently also the security guard. The easier the CCTV system is to control, the more effective it's likely to be.

▶ C O N T A C T

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HOTELS AND CASINOS

Tips for the Casino Security Buyer

Checklist – a Dozen Desirable Video System Features and Benefits

If it is to ensure fair play for all its guests, the fulfilment of its legal obligations as well as its continued existence as a business, a casino has to provide security in all areas of its operation. This means providing security behind the scenes as well as front of house: for instance to protect staff who handle large sums in chips or cash, inside and outside business hours, as well as those who deal with guests.

So it is no surprise that continuous, seamless video monitoring is an important element in any casino's security concept, and in many countries it is a strictly regulated legal requirement. Casinos pose a particular set of technical challenges for video security system designers: Their lighting may be more atmospheric than camerafriendly, yet they need sharp, detail-rich pictures so that exact positions as well as colour and numbers of chips and cards can be verified. Fast, efficient display and operating functions are crucial to give supervisors instant access to recorded and live images to enable disputes to be settled immediately and unequivocally so play can continue. And last but not least, casinos need large storage capacities for retaining high quality, high frame rate video for as much as 30 days.

Checklist of properties and considerations

Nowadays CCTV systems go a long way to providing casinos with the ideal solution. But if you are buying it helps to know what to look for, so you can ask the right questions. This checklist of relevant properties and considerations is based on Geutebruck's experience in equipping many European casinos.

 Management of events or gaming tables is what casinos need, not just the management of individual cameras. Systems with intuitive,

- site-plan-based control screens now provide the ability to jump backwards in time, produce multi-camera footage and send it over the network to a review station – all with a single mouse click.
- A flexible control interface which can be set up to meet every aspect of your requirements will provide the fastest possible access to the right images and ensure continuity of gaming.
- Adequate retention time and quality. If you invest heavily in recording and storage it makes no sense to skimp on image quality or retrieval features. - You need to see the card or chip in detail, and have fast, easy access to sharp pictures.
- · Support for analog, IP and megapixel cameras. Besides analog and IP cameras, some hybrid systems also support megapixel IP cameras. With 25fps real-time viewing and recording, high resolution snapshots and digital zooming for close-ups, this can reduce the overall number of cameras needed. Identical system handling and common functionality for IP and analog cameras (e.g. multiple viewer, synchronised playback of analog streams and IP images) enables the seamless integration of legacy equipment with easy operation and cost savings. On the other hand legacy analog cameras can also be integrated into IP solutions using encoders with intelligent video management to pro-

- vide high functionality and minimise network loading.
- The ability to set the image format for each camera to 4CIF, 2CIF or other option is a big plus where PAL / NTSC line interlacing cameras are used. Here, fast movement causes blurring, and storing blurred images at 4CIF resolution rather than 2CIF only wastes storage space. A better strategy is to use a system where you can select the optimum format for each scene and avoid using 4CIF where there is lots of movement.
- Choosing the optimum compression process. Algorithms such as MPEG2 and MPEG 4/H.264 were developed for multimedia applications, and exhibit some weaknesses in CCTV systems. For instance, there can be image distortion with high compression and movement; they may discard data which is not visible in real-time, but which could be vital in CCTV frame by frame analysis; recorded footage is easy to manipulate using multimedia special effects editors, even if "protected" with digital watermarking. So it's worth noting that a CCTV-oriented compression process may deliver better overall performance and efficiency. Geutebruck's MPEG4CCTV for instance maintains a fixed image quality whatever the content, varies the data stream with the level of movement. and retains all useful information for frame by frame analysis.

SECURITY





- Dynamic live streaming dynamically adjusts each video stream as it is produced, to suit the image size currently required for display. This minimises loading in networks and on hardware, and reduces the number of display servers required.
- Dual streaming separates recording quality streams from live viewing quality streams, allowing bandwidth reduction without loss of high quality footage.
- 24/7 recording: To reconstruct disputed situations a recording speed of 25 fps is required during business hours, but a lower frame rate can be used out of hours to minimise storage costs.
- Assurance that the right scenes are recorded. Internal monitoring systems now constantly check camera status, image quality, lighting and position, and automatically trigger an alarm if tampering is detected. This prevents anyone deflecting cameras away from illicit
- Redundancy for high availability. For most casinos not only do video system breakdowns mean lost gaming and lost revenue, but the fact that cash-counting and other securitysensitive operations continue out of hours means that maintenance windows are short. So no surprise that high reliability is high priority. Nowadays this can be delivered by clus-

- tered, modular server hardware with multiple virtual servers and high availability raid 6 storage as in the IP solution Geutebruck exhibited at CeBit 2009 and which since went into service in a large casino. In addition, remote monitoring service centers now reduce the need for on-site maintenance by enabling both routine servicing and immediate remedies to be implemented remotely.
- Lower power consumption. The latest IP solutions offer considerable energy savings over earlier systems. Functions such as virtual devices and dynamic live streaming reduce hardware requirements, which in turn reduce waste heat generation and the consequent air conditioning costs. A casino which recently installed a Geutebruck IP solution reduced the energy consumption of its CCTV system from 76,000kWh per year to 45,000kWh per
- Lots more information about the latest CCTV technology can be found at www.geutebrueck.

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SOCCER WORLD CUP

Crazy about Soccer

Dallmeier Secures World Cup Stadiums in South Africa

The preparations for the soccer World Cup in South Africa are in full swing. One of the most crucial aspects with such a major event is guaranteeing the safety and security of the thousands of visitors. The Soccer City as well as the Coca-Cola Park Stadium have therefore fundamentally modernised their respective video surveillance systems. They both now rely on a consistent IP solution supplied by German manufacturer Dallmeier.

The most important stadium throughout the 2010 Soccer World Cup in South Africa will be the Soccer City Stadium in Johannesburg. This is where the opening and closing soccer matches will be staged. Steeped in history, the stadium was built in 1987 as the country's first national stadium. Apart from unforgettable soccer matches the stadium has also been used for many other large-scale events such as in 1990, when Nelson Mandela held his first mass rally there after his release from prison.

However, until the opening match of the World Cup, major reconstruction and modernisation works will have to be completed at Soccer City. The building works are so comprehensive that they practically equal a new construction from the bottom up. Once completed, the stadium will accommodate approximately 95,000 spectators. Ninety-nine VIP lounges, 6,000 business seats and exclusive restaurants

provide top-class convenience at the largest of the World Cup stadiums. Besides its size Soccer City primarily impresses with its extraordinary architecture. Its façade is reminiscent of a calabash, a traditional African clay pot. Furthermore, the stadium houses a museum dedicated to the history of South African football. Right next to the building are the headquarters of South Africa's football association SAFA, which will also accommodate the FIFA offices for the duration of the World Cup.

On the occasion of the soccer World Cup 2010, the Coca-Cola Park Stadium in Johannesburg, which was originally built in 1928 under the name "Ellis Park" as a rugby stadium, has also expanded its seating capacities. Now, a total of 70,000 enthusiastic fans can be seated at the stadium. The necessary reconstruction works have already been completed and so the stadium could already be used during the FIFA Confederation Cup in 2009.

The additional numbers of cheering fans though also consequently increases the risk for potentially dangerous situations. Uncontrolled crowds, a tight squeeze, or physical fights between different fan groups are probably among the scenarios most feared by security staff. In order to be able to prevent any such escalations in the first place a sophisticated video security system by German manufacturer Dallmeier and local system integrator Engineered Systems Solutions, who was subsequently also responsible for the installation and commissioning of the system, provides for the necessary overview.

Jose de Oliveira, Manager at Engineered Systems Solutions, explains: "We rely on Dallmeier products because the technology is highly reliable and, yet, at the same time, easy to use for the security operator."

"Besides providing for increased safety and security for the visitors the new CCTV/IP systems also offer the stadiums a clear financial benefit. Considering the numerous international fans it's an advantage that the system can help to rebut potential foreign legal claims in case anything should happen", says Frank Oetjen, who is the responsible Sales Manager at Dallmeier.

Highly Detailed Images Owing to Cam inPIX

When it came to choosing the cameras, it was decided to go with Dallmeier network cameras. The system now includes both fixed dome and Domera high-speed PTZ cameras. The IP cameras are equipped with the tried and trusted Cam_in-PIX technology, which allows for the recording of clear, high-contrast images, even under the most difficult lighting conditions. Those include frequent changes between shadows and lights as they occur in sports stadiums. Individual persons' faces can also be clearly identified at great distances.

Reliable Recording

The camera images are recorded on Dallmeier DMS 240 IPS recorders. These video network systems of the "In Memory of Leonardo" series, with up to 24 IP-based video channels, support



MPEG-4, MJPEG, and H.264 compression methods. The integrated PentaplexPlus functionality far exceeds the usual five Pentaplex standards. The DMS 240 IPS allows simultaneous recording, streaming, backup, live display and playback at the recorder or via a network. Additionally, remote network access for configuration and transcoding via a network is also possible. Every channel can be recorded with a frame rate of up to 25 fps. The Linux operating system on Flash memory guarantees highest reliability and three high-performance fans, with automatic revolution adjustment, provide for optimal ventilation. In the case of a hard disk failure the Easy-Change functionality of the exchangeable hard disks located at the front side of the device ensures for highest possible maintenance-friendliness.

Intuitive Operation through SeMSy Management System

The respective systems are controlled and operated using the professional and extremely highperformance Security Management System SeMSy. SeMSy enables the easy control and administration of different streams of media data and offers live display and recording of video/audio data at any point within a networked system. Operating procedures and complex controls can be stored so that the security personnel at both the Soccer City and Coca-Cola Park Stadiums can operate their systems conveniently and intuitively. The graphic user interface, into which site plans of the stadiums were integrated, gives every user a guick overview of the cameras and dedicated monitors via a compre-

hensive graphic display.

The systems are complemented by several VMC-1 "Eagle" video management centres. With its three components (joystick, Jog-Shuttle, and keyboard with monitor) it combines, neatly arranged, all the functionalities that one can expect from a modern video management system. Using the functions of the Jog-Shuttle it is easy to find images within video sequences. By turning the central Jog Dial security operators are able to conveniently move through individual frames. The joystick of the VMC-1 allows for smooth control of moveable cameras so that pan and tilt as well as zoom functions can be carried out intuitively. Furthermore, the joystick can also be used for navigating through the onscreen menu of the management software. What particularly distinguishes the VMC-1 is the possibility to display recorded image material as well as live images on the integrated monitor. Also, other items such as site plans or search functions can be displayed on the monitor.

Riaan Kruger, Regional Representative of Dallmeier Southern Africa, explains: "Despite the fact that the installation is highly complex, the operation of the system remains highly convenient and intuitive for the security personnel."

Exterior Surveillance and Monitoring of Train Station

Aside from the stadiums themselves the outdoor areas are also monitored by high-resolution Dallmeier IP cameras. Depending on the area of application, the system uses high-speed PTZ dome cameras, box cameras or vandal-resistant dome cameras. The latter also provide for the necessary security around critical areas. Therefore the complete surroundings of the stadiums, including streets and access roads, are reliably monitored. The combination of surveillance systems across various locations consequently en-

hances the security throughout each of the precincts. The security concept is rounded off by incorporating the two train stations which are close to the stadiums into the surveillance system. The Nasrec train station alone, which is just a short walk from the Soccer City Stadium, is monitored by over 100 network cameras, and the same applies to the New Doornfontein Station at the Coca-Cola Park Stadium. In the course of the modernisation works, the train stations were also completely rebuilt. After all, thousands of fans will be conveyed there during the World Cup. Now, the new and well-lit train stations correspond to all the latest requirements, including security precautions. Frank Oetjen explains: "Of course a camera can't actively prevent an incident from happening, but owing to the video images security staff can quickly get an idea of a situation and intervene immediately, for example when the crush of people on a platform should get too tight. Moreover, potential pickpockets are often discouraged from pursuing their activities by the mere presence of a CCTV system. And if there should be an incident, the police will have detailed recordings which allow for the identification of the perpetrators".

Flexible for the Future

"Actually the stadiums currently have no plan for any further rebuilding and expansion works, but you never know what the future brings", says Jose de Oliveira. In any case, the video systems could easily keep up with any construction developments as its open architecture makes it flexible and scalable. Thus, modifications and adjustments regarding future requirements can be made at any time. "The fact that the technology offers long-term investment protection was another decisive reason for choosing Dallmeier", Jose says. He sums it up saying: "The stadium operators are very satisfied with the surveillance system. So, now, we are all looking forward to exciting World Cup matches!"

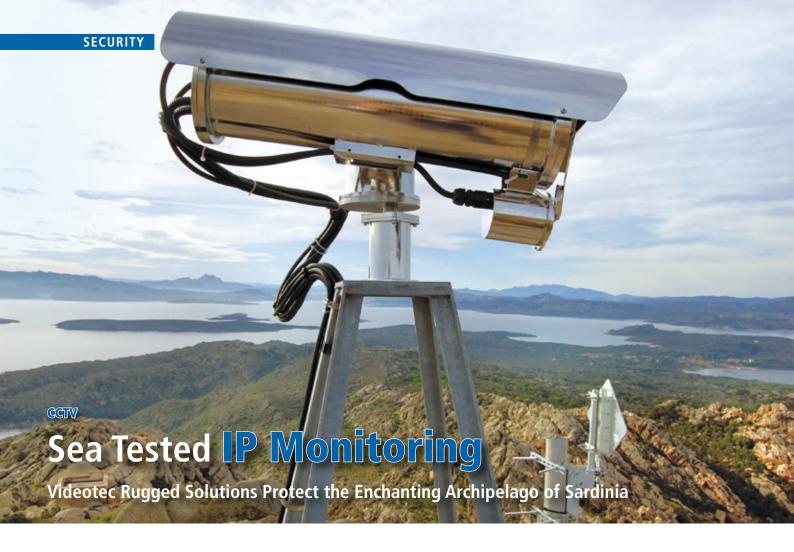
Ifsec, Hall 5, Stand G10

▶ C O N T A C T

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BusinessPartner

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The Maddalena archipelago is a group of islands north-east of Sardinia, off the Emerald Coast, a popular destination for pleasure sailors for its natural beauty and unspoiled emerald waters. Established in 1996, the National Park is strictly protected by environmental heritage laws. The archipelago is famous for the amazing rock carved by the wind. La Maddalena is the main island.

The ambitious total IP video system which aims to protect the marine and coastal environment of La Maddalena distinguishes itself for its charming locations and the singularity of the challenges it has faced and the relevance of current issues at stake.

The Ministry of Transport and Harbour Office requested action on two different fronts: video surveillance of a vast area that includes sea,

houses, wharves and surrounding docks plus the monitoring of maritime traffic in the Park area. The first case, the tender's specifications required an IP video system, installed on the La Maddalena island consisting of a control room located in the ancient tower in the Guardia Vecchia suburb, and a remote system installed at Punta Chiara. To control the traffic on the sea areas which are not visible from the island it was essential to install mobile IP cameras in various spots. The Rome security distribution company Italtec and the Make Security installa-

tion company were called up to design and build the system using Panasonic and Videotec products, while the software was developed by the Milan company Essai. The technologies used are all cutting edge latest generation and the works were completed in full compliance with all applicable standards and regulations.

Low Power Consumption Products Needed

Since the natural location is so impervious, a considerable number of difficulties were en-



SECURITY





countered in the implementation phase, such as the transportation of site equipment or the lack of electricity, a problem resolved by using photovoltaic panels, capable of guaranteeing a week of independent power even without the sun. This service was ensured by using low consumption products only, along with Videotec pan-tilt systems which have zero consumption levels when inactive.

The video system installed on the La Maddalena island is composed of two network video recorders and about a dozen Panasonic video cameras.

Videotec IP68 housings and pan-tilt systems were installed to protect and handle the cameras; the latter are made from polished stainless steel designed to withstand the most severe environments and developed specifically for the offshore market, industrial use and any type of environment where external agents are highly corrosive and aggressive as at sea. Furthermore, the accurate mechanical construction and reliable motors reduce the need for maintenance even in situations of intense mechanical stress. This is an essential condition in sites which are difficult to reach like the Maddalena archipelago. Moreover, these devices are equipped with wipers to ensure clear viewing in all weather conditions.

Given the need for accurate sea patrol systems, the pan-tilt systems were equipped with "two-way telemetry," an ad hoc application developed by Italtec which displays not only the video recording on the monitor but also the geographic reference coordinates.

Everything Under Control

Only a few months have passed since the work was completed but it is already possible to draw a positive balance. There is not a small stretch of coastline or a portion of sea that escapes the widespread patrol systems which are capable of transmitting images that are so clear and precise that it is possible to read the license plate of a ship two miles away.

The anomalous events detected by the system so far have mainly referred to distress calls by boats in difficulty. In such cases, the accuracy of the shots is so high that the operator was able to aim the camera exactly in the direction where the call was being made and watch what was actually happening. But illegal situations that may occur are numerous: from encroachment by ships to the passage of oil tankers discharging pollutants into the environment. The example set by La Maddalena may serve to convince other marine parks to adopt the same tools and technologies.

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AIRPORT SECURITY

A Perimeter Protection Field Test

Frankfurt Airport recently tested smart video and fence detection systems

Spreading over 19.6 km², Frankfurt Airport covers an area almost as large as the whole of Frankfurt city centre. The perimeter fence around the site is currently around 31 km long and will be even longer as from 2011 - a further 10 km of fence will be added because of the new north-west runway. Fraport AG, the airport corporation, has tried out various smart video and fence detection systems as part of a comprehensive field test. Matthias Erler of GIT SECURITY spoke to project manager **Manfred Reinhard about corporate** security at Fraport AG.



Manfred Reinhard



GIT SECURITY: Mr Reinhard, you recently carried out some field testing of perimeter protection at Frankfurt Airport involving video and fence detection systems. Let me ask you first of all: why was this test necessary?

M. Reinhard: Fraport AG plans to further develop its perimeter protection as part of the expansion plans at Frankfurt Airport. The results of these tests will be used to decide if and with what technology the perimeter protection and site surveillance will be implemented.

Can you describe the test process for us?

M. Reinhard: Video and fence systems were installed under realistic conditions in a selected area within the airport's security zone. The purpose of this was to conduct an objective comparison of the video sensors and fence detection systems that are currently available on the market. This meant that all the installed equipment was tested under absolutely identical conditions and the results were analyzed.

What was involved in detail?

M. Reinhard: With smart video analysis, the effectiveness of various sensors, the visibility of objects, the false alarm rate of perimeter protec-

tion as well as the usability in site surveillance should be established. The emphasis with fencing systems lay on the sensors' reaction to attacks and impermeability when attempts were made to penetrate the fence. Particular attention was paid to the widest range of environmental conditions.

What types of video sensing systems were tested?

M. Reinhard: A wide range of video systems was employed in order to achieve the broadest possible spectrum of test results. All possible types of camera were tested, from normal video cameras to thermal imaging cameras.

What differences did you discover during your field tests?

M. Reinhard: The differences lay mostly in the parameter setting and operation of these systems. In the video sensors comparison it was established that detection with thermal imaging cameras is currently the most suitable solution under adverse weather conditions.

You also investigated various video detection software products. What was especially important here?

M. Reinhard: With the video detection software products the focus of our attention rested on the systems' parameter setting and their response to various different events. This included, for example, the simultaneous breaching of virtual boundaries by several objects, and that under adverse weather conditions. For us, the operation of the systems was the main focus of our attention, so that the information provided gives us a rapid overview of the situation whenever any alarm occurs.

Looking at fence detection technologies: what results did the tests produce?

M. Reinhard: The results indicated that a major part was played by environmental conditions, in the same way as for video systems. From an operational point of view, the need to minimize false alarms was fulfilled by fences with idle current monitoring. Video surveillance is also necessary where detected fences are used.

You also investigated various types of fence: mesh, wire and metal weave and grids. What did you test here, and what was the outcome?

M. Reinhard: Scaling and penetration attempts were carried out by our test personnel, who attempted to climb over or breach the fences under test. The outcome of all of these tests was that metal grids or bar grid fences offer the greatest resistance and that they fulfilled the operational requirements.

How and when will the results of these investigations be implemented into specific projects?

M. Reinhard: The results have just been incorporated into our plans for the new north-west runway.

▶ CONTACT

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Digital Door Fitting

Digital Smart Handle 3062 by Simonsvoss Technologies managed to impress the jury of one of the most prestigious international design competitions. In the "Red dot award: product design 2010" the product was awarded the "red dot" quality label for high design quality by the jury consisting of top-class experts. The festive awards presentation with more than 1,000 guests



will take place in the Essen opera house, the Aalto-Theater, on 5 July 2010. In Essen, Germany, the 2010 European Capital of Culture, the product will then be presented in a four-week special exhibition at the red dot design museum on the premises of the Zollverein colliery. The digital door fitting combines intelligent access control with elegant and ergonomic design.

www.simons-voss.com

Ghana Airport Security: Through Body X-ray Scanners

Ghana becomes the second African nation to upgrade its airline security with the installation of a Soter through-body X-Ray security scanner. Bought from OD Security by the US government and donated to Ghana as part of a program to boost security at airports that have been identified as ports of embarkation for drugs mules bound for the US. Although the programwas originally conceived to combat the narcotics trade, following the recent attempt to blow up a US bound aircraft, the Soter will be used to scan selected passengers who have been identified as posing a possible security risk. Unlike millimeter wave and back scatter scanners being widely deployed elsewhere, the Soter provides a through-body X-Ray image that can detect any objects hidden in or on the human body within just ten seconds, negating the need for intrusive strip searches.

www.odsecurity.com

Security Management Software

G4S Technology announces the release of its latest Symmetry Security Management System v6.2. The new version of Symmetry will provide many new enhancements and robust integrations with some of the industries foremost partners Salto Systems, On-Net Surveillance Systems (OnSSI) and integrations with the Axis H.264 camera range. Additional system enhancements include support for Windows 7, Symmetry camera tour feature and SQL Server 2008 support. Salto's electronic locks provide an affordable locking option for internal doors when integrated with Symmetry. The locks operate in a wire-free environment so no hard wiring or wireless infrastructure is necessary. Installation is fast, self contained and costs a fraction of the price of a normal secured door. Symmetry also integrates with OnSSI's NetDVMS digital recording platform. NetDVMS is a multi-site, multi-server network video recorder and camera management software suite that can manage a limitless number of cameras and video clients. Customers can record and archive, perform event management and intelligent motion detection with on-event Push Live Video. Users and integrators will find many benefits when they install this vigorous integrated system. www.g4stechnology.com

Long Range Vehicle Access

Nedap AVI's newest reader, the Upass Reach, offers long-range vehicle identification up to 4 meters [12 ft] using the latest UHF technology. Based on battery free passive UHF transponders you have a reliable, cost effective and enduring solution for parking access. The UHF system is based on an Upass Reach reader and a passive UHF tag. These tags are battery and maintenance free. The reader output



allows the access control or parking system to open the gate when authorized without the need for card readers or PIN pads. A built in, high intensity LED provides visual feedback to the user that the tag has been read. The system reads at distances up to 4 meters [12 ft] reliable and consistently. The system is a solution for commercial and residential parking applications, such as car parks, gated communities and employee parking access.

www.nedap.com Ifsec, Hall 4, B65

EVACUATION

Making a Virtue of a Necessity

Integrated Fire Detection and Voice Evacuation Solutions Ensure Compliance with Legal Requirements

Meeting fire safety approvals required by law doesn't have to be a headache. Bosch's integrated fire detection and voice evacuation solutions can be tailored to any size of business or institution, from small shops, schools and offices, to very large sites such as high-rise buildings, industrial complexes and airports.

The installation of fire safety and voice evacuation systems can in some ways be described as 'making a virtue out of necessity', since it's an expense that businesses and institutions have to bear by law from which there is no obvious financial return. Of course, they appreciate that regulations are important but they still want to adhere to them with as little cost and disruption to their business as possible. EN certification and standards conformity are the most important aspects of Bosch's integrated fire alarm and voice evacuation solutions, and rigorous testing by independent laboratories gives the customer and the user a lot of security and peace of mind. What suits large sites would be inappropriate and far too expensive for smaller sites, so the company's modular fire and voice evacuation systems can be tailored to any site and their integrated solutions provide a complete safety chain built on a combination of proven systems, from early detection to orderly evacuation. Bosch detectors, built for accuracy and reliability, indicate exactly where a hazard exists, and the voice evacuation system can transmit warnings to the affected area or the entire building or complex and initiate orderly evacuation with clear messages that keep everyone calm.

Products for Every Project

For small to medium sized sites, Bosch has the Fire Panel 1200 Series which supports up to 254 peripherals, and the Plena Voice Evacuation System which can support up to 60 zones and one or two channel operation. A recently introduced RS-232 interface module is used to integrate the Fire Panel 1200 and the Plena Voice Evacuation System giving supervised control of up to 120 voice alarm triggers and 'smart' voice evacuation control via the fire panel. This solution sig-

nificantly reduces cabling and hardware costs as against using dry contacts to connect systems together can represent a large proportion of the overall cost due to the cable installation work. The 5000 Series Modular Fire Panel is usually the better option for larger venues. A networked solution comprising the Praesideo fully-digital public address and emergency sound system and a 5000 Series Modular Fire Panel can intercommunicate via the Bosch Building Integration System (BIS). This networked solution can accommodate up to 32,000 peripherals and makes fast warning and phased evacuation possible in large building complexes in the event of fire. The BIS also works with worldwide open and tested IT-standards such as OPC, XML, HTML and Windows - which means that security programs from third parties can also be easily integrated. If fire breaks out, the BIS interface provides easy visualization of the nature of the emergency on its Windows-based browser user interface. The BIS is also capable of starting predefined procedures and sending predefined warning messages over the Public Address and Voice Evacuation system. So it provides valuable support to security personnel and reduces the chance of mistakes, improving the safety of the whole com-

Sports Made Safe

The security chain is also fully EN-certified – approved for EN 54-2 and 4 for fire and for EN 54-16, EN 60849 and ISO 7240-16 for EVAC. Each

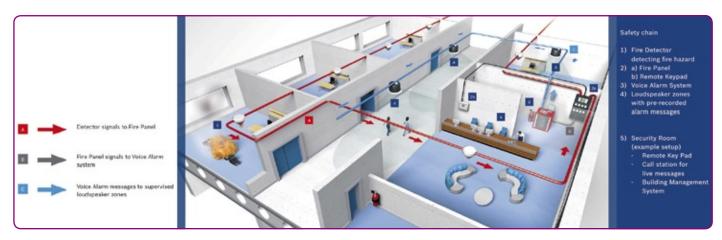
system meets the highest standards for quality, safety, and functionality, and offers exceptional flexibility and options for expandability. Arena Zagreb, Croatia's prestigious new multi-purpose sports, concert and exhibition center, features an integrated security system centered around Bosch's Building Integration System and the company's advanced EVAC, CCTV and fire alarm security solutions. The fire alarm system comprises almost 1,500 420 Series intelligent fire detectors and other peripherals. These are controlled by two 5000 Series Modular Fire Panels connected to the BIS. The system also features built-in redundancy with each central system supported by a second 5000 Series panel available to take over if the main panel should fail. The fire panels are connected via the BIS to a Praesideo Public Address and Voice Evacuation System which offers virtually limitless networking and multi-zone possibilities allowing phased evacuation.

Sound Where It's Needed

The 100 V EVAC loudspeakers are designed to ensure that emergency messages are not interrupted in the event of a fire. Every loudspeaker incorporates a ceramic block and heat-resistant wiring to protect the circuit from short circuits in the event of fire reaching the loudspeakers. In addition, fire domes are mounted on the ceiling speakers to prevent fire traveling to adjacent areas through the over-ceiling spaces. Maaspoort Sports & Events is a multi-purpose center that in



- 1) Modular Fire Panel 5000 Series; 2) Fire Panel 1200 Series; 3) Serial Interface Module, built in panel;
- 4) Plena Voice Evacuation System; 5) Praesideo Public address and Voice Evacuation System;
- 6) Building Management System



2006 went through a major makeover which included the installation of a state-of-the-art fire detection and voice evacuation system. The building complex hosts major league basketball and badminton matches and has training facilities for other sports. It also hosts concerts, dance parties and shows. An integrated fire alarm system was chosen, featuring the 5000 Series Modular Fire Panel in combination with the Praesideo Emergency Sound System which also serves as a digital public address system.

In the Zone

Different types of smoke detectors (from the 420 Series) with multi-sensor technology were installed to meet the individual requirements of

the various areas. The Fire Detection System is addressable, meaning that all components can be installed and connected on a cable loop, thus making installation and future expansion of the system very simple. Detector information can be displayed at any time on the user interface of the fire panel. The building is divided into 10 zones providing public address for the sports hall, offices and foyer, with or without background music. The voice evacuation messages, transmitted throughout the entire building in four languages, always have priority over other messages and music. Because of the large number of spectators that can attend top basketball games, sound intensity in the main sports hall can rise to very high levels that, together with echoes, can impair the intelligibility of emergency messages so the main hall has 14 loudspeakers along the sides of the galleries that are positioned in such a way that sound is equally divided and echoes are avoided. Virtually invisible ceiling loudspeakers are used in all other spaces such as the foyer, the offices and the new business club.

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FIRE PROTECTION

Powering Up the Right **Equipment**

Any power supply performing a mandatory function of a new or upgraded European fire alarm system must be third-party approved as being fully compliant with EN 54 part 4

Amendment 2. This includes not just the fire alarm system's CIE (fire alarm control panel) but also any PSU that controls a beam detector, digital communicator, aspirating smoke detector or sounder control unit.



C-Tec's range of boxed third-party certified EN54-4/A2 power supplies



You can ascertain if a power supply has been approved to EN54-4/A2 by looking for its CE mark – if a four digit notified body number, the initials CPD and a three or four digit serial number appear underneath, and the label refers to EN54-4:1997/A2-2006 you're safe.

The reasoning behind this is obvious. A fire alarm/fire protection system is a piece of life safety equipment and any PSU forming part of it must be reliable and capable of supplying the relevant load under normal, fire and fault conditions or be fail safe. If it isn't, and if it doesn't, the consequences could be devastating for both life and property — a detector failing to detect, a sounder failing to sound or a digital communicator failing to call up the emergency services.

Specifically designed to comply with EN 54-4/A2, C-Tec's extensive range of EN54 power supplies are easy-to-install and extremely cost-effective.

The range comprises four different 24 V boxed power supply units rated at 1.5 A (two versions), 3 A and 5 A, all of which are capable of housing and charging a variety of different sized standby batteries to suit a host of applications. A 12 V 2 A boxed version — the world's first to be certificated to EN 54-4/A2 — is also available for use in auto-dial applications. All of the above are third-party approved by the VdS or LPCB to EN 54-4:1997/A2:2006.

Features available across the range include low current consumption, link selectable battery charging capacity, battery impedance monitoring, a single-pole volt-free changeover relay that switches for any fault condition and three LED indicators (supply present, general fault and auxiliary fault).

The entire range is also designed to be environmentally friendly. Rather than using a resistor as the current limiting device for battery charging, an alternative method is used which results in minimal power being dissipated by the charging circuit (typically just 0.35 W compared to the estimated industry norm of around 2.55 W). This and the fact they use switching rather than linear technology reduces the amount of heat/energy lost into the environment.

PCB and caged versions of C-Tec's PSUs are also available with exactly the same electronics used in its approved EN54-4/A2 boxed PSUs.

Ifsec, Hall 5, Stand I10

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FIRE SAFETY

Standards for **Thermal** Insulation Products

Standard for Building Equipment and Industrial Installations Now Available

At long last, the product standards for technical insulation have been voted through in CEN. The next stage is publication in the EU's Official Journal, after which manufacturers of technical insulation can start to CE-mark their products. A typical example of such insulation is that of pipe insulation. As usual, there will be a transition period to cover the change from national certification approval systems to the obligatory use of CE-marking. An extra-long transition period of 33 months has been agreed for these particular standards, starting from when the CEN standards are published.





Marina C. Andersson

Per Thureson

The SBI Method

The new standards, listed in Table 2 below, cover a large number of different insulation products. The materials most commonly used in the Nordic countries for pipe insulation are mineral wool, flexible foamed elastomer and foamed polyethylene. SP Fire Technology has been involved for several years in the use of the SBI method for testing pipe insulation. SP invested considerable work in developing the test methodology and approval criteria that are now included in EN 13501-1:2007 (with Annex A1:2009). The reference scenario that provides the basis for classification is based on a full-scale room scenario in accordance with ISO 9705, the 'Room corner test'. Further information on the reference scenario can be found in SP Report 2002:21, which describes the research work.

The basic condition when testing pipe insulation by the SBI method (EN 13823) involves testing samples with 25 mm wall thickness and 22 mm internal diameter. They are threaded on to conventional 22 mm steel pipes, and assembled with an air-gap between each pipe section. If the range includes products with greater wall thicknesses, the 50 mm samples (and also 75 mm samples, if relevant) must also be tested. This means that up to three complete SBI test series may be required in order to assign class ratings to all sizes of a product.

- Reaction-to-fire
- Sound absorption
- Thermal conductivity
- Vapour permeability
- Emission of dangerous substances
- Durability

Tab. 1: Relevant properties to be declared

EN 14303, Thermal insulation products for building equipment and industrial installations – Factory made mineral wool (MW) products – Specification

- EN 14304, flexible elastomeric foam (FEF) products
- EN 14305, cellular glass (CG) products
- EN 14306, calcium silicate (CS) products
- EN 14307, extruded polystyrene foam (XPS) products
- EN 14308, rigid polyurethane foam (PUR) and polyisocyanurate foam (PIR) products
- EN 14309, products of expanded polystyrene (EPS)
- EN 14313, polyethylene foam (PEF) products
- EN 14314, phenolic foam (PF) products

Tab: 2: A list of the new product standards for technical insulation. (Italic text is common to all standards.)

CE-marking

As soon as the new standards are listed in the Official Journal, manufacturers can start to CE-mark their products. The necessary testing and certification must be carried out by a Notified Body. SP is preparing establishment of the necessary services, and will be applying to Swedac for notification for these standards. However, evaluation/testing of the various technical properties can start straightaway. Table provides an overview of the properties that must be evaluated, although details can vary somewhat depending on the particular material concerned. SP can provide all the necessary resources for evaluation and certification of technical insulation. For measurement of thermal conductivity of circular geometries and measurement of maximum and minimum operating temperatures, SP is working with FIW (Forschungsinstitut für Wärmeschutz e.V.) in Germany, which has considerable experience in this field.

Building Regulations and Requirements

The Swedish Building Regulations already refer to European fire classes for technical insulation. This applies also to pipe insulation, for which the Euroclasses are used in parallel with the national PI-PIII classes. The Building Regulations contain the following advice:

Insulation of piping systems covering only a smaller area can be provided using the following classes:

- B_L-s1,d0(PI), where the surrounding areas require B-s1,d0 (Class I).
- C_L-s3,d0(PII), where the surrounding areas require C-s2,d0 (Class II).
- D_L-s3,d0(PIII), where the surrounding areas require D-s2,d0 (Class III).

from this, it can be seen that the National Board of Housing, Building and Planning has linked the pipe insulation requirement to the requirements applicable for other surface linings in the room. As the pipe insulation may occupy only a smaller proportion of the surface area of the room, it is felt that a lower smoke class (s3) than for adjoining surfaces can be accepted.

▶ C O N T A C T

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MACHINE AND SYSTEM SAFETY

Sealing Safely

Optimal Safety Solution for Filling and Sealing Machines

Rychiger, with its head office in Steffisburg in the Bernese Oberland, belongs to the leading international manufacturers of customer-specific filling and sealing machines. Their safety is monitored by various components from the Swedish company Jokab Safety whose key products are electronic safety modules and magnetic locks with an integrated safety sensor. Various safety relays and adaptors provide contact expansion, switching delay, and time-saving wiring via M12 connectors.

The Swiss company Rychiger, founded in Steffisburg in 1918, is specialized in manufacturing filling and sealing machines for premolded aluminum or plastic containers for food, pet food, coffee and tea as well as pharmaceuticals. It has 140 employees and reaches an export rate of more than 80%.

The Rychiger FS 680 machine fills and seals all kinds of premanufactured portion-packs. The modular machine, designed for wet cleaning, can be configured as required and easily adapted to the corresponding product, packaging-material, and process requirements. It is suitable for the filling of liquids, viscous and highly viscous products, lumpy goods and powdery products.

Decades of experience in heat sealing technology, innovative ideas, and close customer relations have led to the conception of a wide product range, which ranges from semi-automatic entry-level machines to complex, fully automated machines. All machines



Rolf Gasser (40) and Markus Schönbächler (47) in front of the control cabinet of the FS 680 filling machine. The only 22.5mm wide safety module Vital (right) allows to connect different safety devices.

(Photo Jokab Safety)

are characterized by their highly precise, repeatable sealing technology, which is based on short sealing times, a high sealing pressure and low sealing temperatures. Their unique punching technology, extremely low foil-consumption and precise fillers provide sustainably low operation costs.

Magnetic Lock with Integrated Safety Sensor

The Magne 2 magnetic lock with a built-in Eden safety sensor was developed for use in just such industrial safety applications. It can hold a door or hatch closed electrically with a force of up to 1,500 Newtons. The touch-free Eden sensor monitors that the door or hatch is securely closed. The magnet includes an informa-

tion output contact which reports when the holding force has reached the level needed. This permits the supervision of correct positioning and ensures that there is nothing between the magnet and the holding plate.

Different holding forces (up to 1,500 N) can be achieved by connecting different voltages between 0V and 30V to the magnet. At 0V the magnetic field is completely gone and there is no residual magnetism, so no magnetic material will be held on the magnet, ensuring a reliable application. In conjunction with the Tina 12A junction block and the lock's 8-pole M12-connector, two locks can be easily connected to one Pluto safety PLC or to one Vital safety module. The accessories available include a mounting kit, a plastic handle and a handle profile for mounting on a hinged door with the Quick-Guard fencing system and a door gap of 5 to 15mm.

Safety Modules and Sensors

The Vital electronic safety module which is only 22.5mm wide makes it possible to install and dynamically supervise many different types of safety devices connected in the same safety circuit and still achieve the PL e performance level according to EN ISO 13849-1. It also has auto-

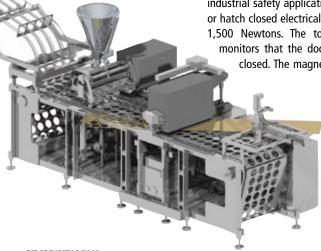


Fig. 1: The filling and sealing machine FS 680 fills and seals all kinds of premanufactured portionpacks. Its modular design enables any desired configuration. (Photo: Rychiger)



Fig. 2. The magnetic lock Magne 2 with integrated safety sensor Eden can hold a door closed electrically with a force of up to 1500 Newtons.

(Photo: Jokab Safety)

matic or manual supervised reset, dual NO safety outputs, an information output for reset indication, and status information for PLC's. The modules have an LED indication of power ON, presence of dynamic signals and output status. Detachable connector blocks make it easy to troubleshoot or change a module. Vital can supervise up to 30 Eden or Tina devices and the 2 outputs have a switching capacity of 6A/250Vac/1500VA/150W.

An Eden non-contact safety sensor pair is mounted on each maintenance door. It consists of the active, electrically connected part called Adam and the passive part called Eva, which acts as an actuator. A coded signal is transmitted from the Vital control device or from the Pluto safety PLC via Adam to Eva, which modifies the signal and sends it back again. The sensor is only activated, if the door is closed and Adam and Eva are face to face. Here, the wide

tolerance for distance and misalignment between Adam and Eva and the blinking frequency of the LED, which serves as an alignment aid, ensure a very easy and time-saving installation. The sensor has a sensing distance of 0 to 15mm and is maintenance and wear free. The signal can easily penetrate through non-metallic materials such as wood or plastic.

Status Information

Thanks to the unique dynamic input and output signals, it is possible to monitor up to 30 non-contact sensors with a Vital safety module or up to 150 sensors with a Pluto safety PLC using one channel. Thereby, the highest safety category 4 is maintained and an information signal indicates the state of each single door. The Tina 8A connection block is available with 8 M12-connectors. It enables several safety components having M12 connection terminated cables to be

connected together. The block is connected with a suitable multi-core cable that carries status information from each safety component to the control cabinet. The connection block contains electronic circuits which modify the coded dynamic signal in the safety circuit. Several connection blocks can be connected to one Vital safety module or to one Pluto safety PLC.

The automation specialists at Rychiger, responsible for electrical engineering, value various aspects of the Magne 2 magnetic lock; its high closing force and slim shape; the high protection class IP67; the plastic housing which is appropriate for food and resistant to milk powder. They see a particular advantage of the Vital safety module in the fact that it can replace many safety relays and monitor up to 30 Eden sensors.

Compared to the previous solution with 2-channel monitoring, trouble-shooting is now much simpler and the Tina adaptors used as distributors greatly reduce the wiring costs. The Rychiger specialists are also very satisfied with the advice, the price/performance ratio, the high resistance to wetness as well as the approvals for Europe and Asia. Detailed documentation on the safety components and various circuit diagrams are available free of charge.

▶ C O N T A C T

Mats Linger

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Expanded Fire Safety Offering

Tyco Fire Suppression & Building Products will be showcasing its greatly expanded offering at Interschutz in Leipzig. Several products will be spotlighted for the first time at Interschutz from fire safety brands like e.ge. Ansul, Grinnell, Hygood, Sabofoam, Skum, Total, and Unistrut. A broad cross section of water-based, foam and chemical fire suppression solutions will be on show, alongside



an extensive building products offering. This includes Tyco's core sprinkler market products that address existing hazards, enhanced with new sprinkler solutions targeted at emerging fire protection challenges. This encompasses brands such as the Aquasonic water-atomizing fire suppression system, the Ulf Aquamist ultra low flow water mist system, the Quell sprinkler system, the Hygoode Sapphire, i3 Advantage and FM-200 clean suppression agents, Skum foam hardware and proportioning systems and the latest Sabofoam foam concentrates.

www.tyco.com

Customer Experience Platform

Ansell Healthcare has launched its Customer Experience Platform grouping product offerings into three categories: Mechanical Protection, Chemical & Liquid Protection and Product Protection. This is the result of a global program designed to unify and simplify the Ansell glove selection process. The customer-centric program included intensive global investigations into user experiences, needs and preferences. One of the first tools resulting from this research and repositioning was the introduction of a completely revised Ansell Protection Solutions Catalogue that was presented at the A+A 2009. www.ansell.eu

Protective Workware

Sympatex manufactures protective workware to a wide range of specifications as part of its Professional range. The products focus on maximum performance and wear resistance, climate comfort and 100 % protection from wind and moisture. At up to 5 μ m, the membrane is also very thin and elastic (up to 300 % in breadth and length). All products are certified, comply with standards, and have been tested at both the company's own laboratories and external facilities. The membrane consists of 100 % polyester and can be completely recycled. It has been awarded the Oeko-Tex Standard 100 and the Blusign certificate.

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With its "Falcon" safety canisters Denios offers an appropriate solution for the handling of dangerous liquids. Whether for in-house storage, transportation and filling, a high level of safety, ease of use and the optimal adaptation to the respective application is essential. The in-house developed product range comprises of filling-cans, transport cans, spray cans, moistening cans and practical accessories, thus ensuring no future problems. For all applications the safety canisters have an appropriate shape with a capacity of 1–5 litres. Depending on application they are equipped with a fine metering tap, a screw cap, a spray head or pump unit with a moistening disc. The safety canisters are made from high quality stainless steel for aggressive liquids or galvanized sheeting with an additional corrosion protection using powder coating in safety yellow.









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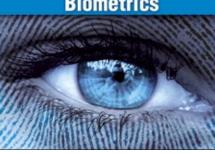
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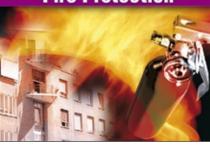


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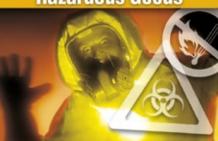
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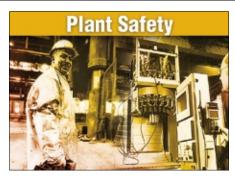
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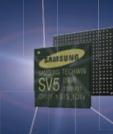


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