

EYEVISION



WWW.EYEVIS.DE

) EXPANSION IN SPAIN

We have just opened our new branch office on the Iberian Peninsula. eyevis Spain in Madrid will be taking care of all Spanish, Portuguese and Latin American customers. **More on page 8**

) DOES YOUR BACK HURT SOMETIMES?

It is necessary to have a strong back if your job requires sitting down for a long time. A workout routine is good to prevent postural problems. But it is also important to have the right chair and seating position at work. For more comfort and less pain you might want to read our article **on page 28-29.**

) OVERSEE AND OVERLOOK

The new members of our EYE-LCD family are the 5500-LHD-USN and the 6000-SN displays with a minimal screen-to-screen distance of less than one centimeter. Because nothing should distract you from their extraordinary high image quality. More on the new EYE-LCD Displays **from page 13.**

) A LOT, BUT NEVER TOO MUCH.

For a major client, the Korean Kepco, we installed more than 500 cubes altogether. We believe that this project deserves a little attention. See and read about it **on page 22.**



Dear clients, friends and employees of eyevis,

trying out something that is completely new and unknown can turn out to be a little bit of a risk for a company like ours. We believed in this new project, our customer magazine eyevis, and accepted the challenge and any unpredictable consequences. We did dare to go for it and came up with our first edition in the fall of 2010. Luckily, the feedback was amazing. We are very grateful to have received so many responses from all over the world. Thank you all very much for taking the time to read and reply. This makes our job worthwhile. And the team responsible for the eyevis magazine started working on this new issue immediately.

The new year has just started, so let me take this opportunity and say a big thank you to everyone who made 2010 so special. You – our clients and colleagues – made it an exciting and successful year! We were able to realize a large number of international projects and expanded in various directions. eyevis has achieved a lot over the past year – thanks to you!

We presented many new and popular products at various international fairs, thanks to our great team who made that possible. If you missed us in 2010, please see the back of this issue for dates of fairs we are going to be attending this year, maybe we will see you soon!

eyevis wish you and your families a very happy, healthy and successful new year!

A handwritten signature in black ink, appearing to read 'Eric Henique', is positioned above the name in the caption.

Kind regards, Eric Henique/Director Marketing and Int.Sales

) RECOMMENDATIONS

WE GLADLY WELCOME YOUR FEEDBACK ON YOUR EXPERIENCES WITH EYEVIS. A FEW STATEMENTS FROM OUR CLIENTS:

Magfa Company: „We are very satisfied with our eyevis installation and would recommend it to everyone!“

Peter Bux, EnBW: „Our installation is extremely satisfying, especially the integration into our existing system was no problem at all, that was convincing.“

Thierry Darbois, Ministry of Foreign Affairs, France: „I would like to mention our contentment with the quality of your products and its technical competence. I would especially like to thank the whole team at eyevis who helped us with it.“



AN AMERICAN IN SWABIA: ANDREW SHANNON ON HIS INTERNSHIP AT EYEVIS

■ Two months ago, the phrase “large screen display systems” would have triggered the same response from me as being asked for directions in a foreign language. Being a Business Entrepreneurship major from California, USA, any mention of electronics usually puts me immediately out of my element, and I tend to never stray too far from the safer waters of Management Theory or financial accounting.

You can imagine the intimidation I felt when I arrived at the eyevis GmbH headquarters in Reutlingen, Germany, for my first day of work on September 1st – this was my first time in Europe, I spoke all of two words of Deutsch, and I was about to commit myself to a four-month internship regarding – what was that phrase again? I clearly had the lowest technological qualifications in the company, and I was joining a team of people who had been working with one another for the better part of four years.

As it turns out, these are all reasons why my time here at eyevis has been the most rewarding experience I’ve ever encountered. In practical terms, eyevis primarily makes display systems – large, seamless video walls with all the components and software to operate them – for all kinds of applications, such as control rooms, military bases, security centers, traffic control centers, advertising... you name it. eyevis also manufactures frontal projectors and touch screen components. Working from the Marketing and International Sales Department, I’ve

come to understand, love, and respect the highly advanced technology required to create these systems, as well as the brilliant minds behind them that make it all possible.

My internship here has taken the often abstract business theory I learn in my studies and supplemented it with practical, valuable experience. I learn something new every day, whether I’m calling clients, seeking business contacts, sitting in on meetings with partners from Korea, planning and attending company conventions, proofreading technical documents, or simply socializing with my coworkers from other departments. Today, I organized the Visas and travel arrangements for the members of our Iranian office to come and receive training here. Tomorrow, I could be working on a tender for a major display project.

The point of all this is that my work here is important. On a personal level, I’m working with fantastic people, learning to speak Deutsch, and advancing my business career in a unique way that sets me apart from my peers. On a corporate level, I’m thrilled that I can provide my skills and knowhow to a great, rapidly-growing company with such a bright future ahead. And on a global level, I’m honored to represent the United States in such a wonderful and powerful country as Germany, and to contribute to globalized business from the International Sales department.

By now, I know the business of large screen display systems like the back of my hand, and I could give you driving directions to „der Hauptbahnhof“*, no problem.

*der Hauptbahnhof = the Main Station

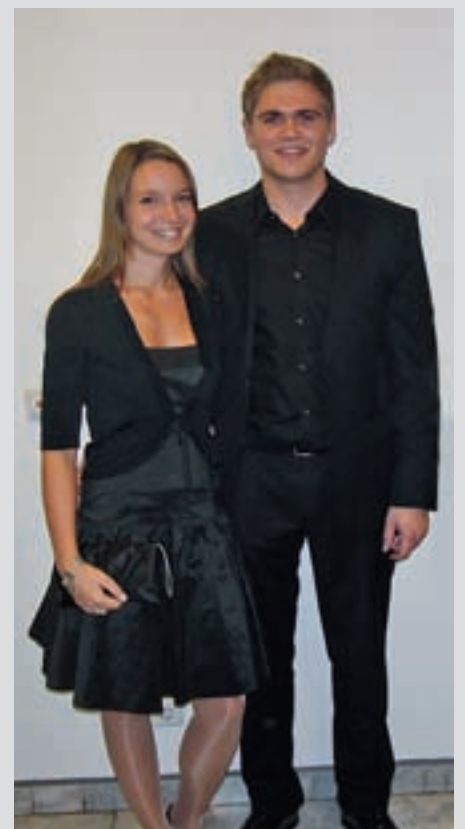
EYEVIS CONGRATULATES OUR TWO GRADUATES WHO SUCCESSFULLY GRADUATED FROM BADEN-WÜRTTEMBERG COOPERATIVE STATE UNIVERSITY

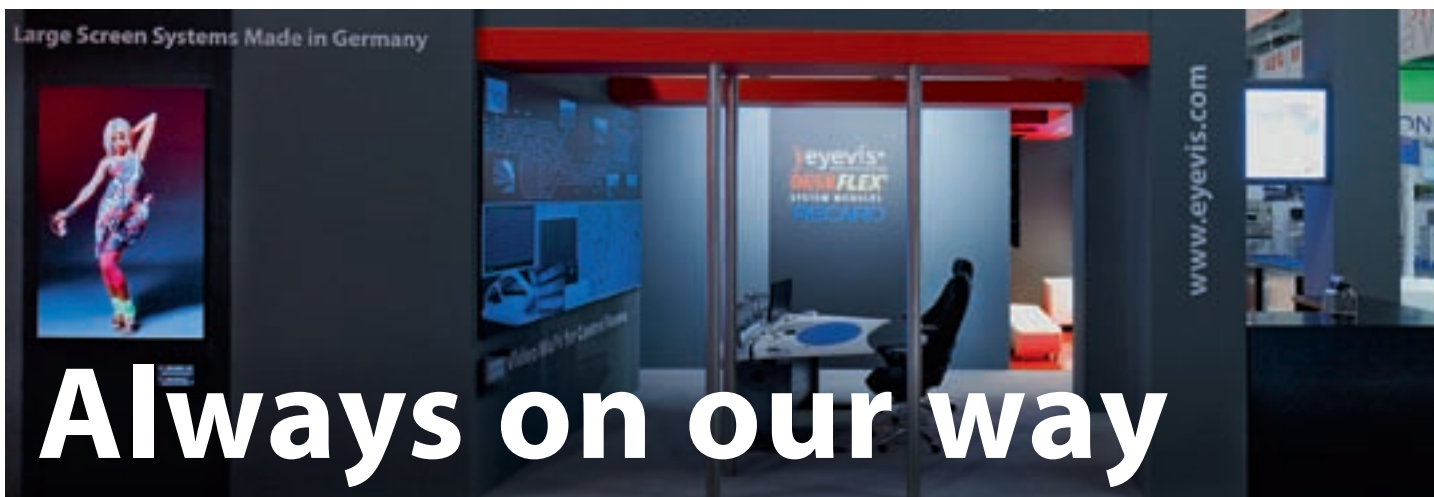
For the first time, eyevis is proud to have supported two students who studied at Baden-Württemberg Cooperative State University. This school combines academic studies with practical parts, which the two alumni Sabrina Raschke and Daniel Kugel, spent at eyevis headquarters in Reutlingen, Germany.

After three years they have now gained Bachelor degrees. On September 30, 2010, Sabrina graduated in Industrial Business and Daniel majored in International Business.

We at eyevis, as their mentors and employer, are proud of the two and are especially happy that we were able to offer both of them a position to keep working for eyevis. They are now both part of our marketing department. Sabrina supports our team working on fairs and events and Daniel is part of the international sales team and was also working on this issue of eyevision.

We believe in the Baden-Württemberg University of Cooperative Education’s system, as our good experience with our graduates proves and we will continue to offer such apprenticeships in future.





LOOKING BACK ON PAST FAIRS

■ **Definitely Security**

At last year's Security fair in Essen, Germany, eyevis was present with more than our own representation: the company PKE had us install one of our systems for their own booth. Together with our partners from SeeTec and advancis, we spent four days with seven colleagues and numerous guests at our stand, presenting a large variety of our products, including:

The EYE-LCD-4600-SN, a new LCD display with a 46" screen. It is recommended for building a video wall, as it has a small bezel and minimal screen-to-screen distance. Further LCD-Displays was our huge EYE-LCD-8200-HD with an enormous 82" screen and fullHD solution, as well as the EYE-LCD-6400-4K with an unbelievably high resolution of 4096x2160 Pixel. We had a 2-by-2 wall built up of our DLP rear-projection cubes of the type EC-70-LWXT as a part of our exhibition. This product is especially recommended for the use in control and security centers due to its 70" screen diagonal combined with WUXGA resolution of 1920x1200 pixel, exceeding fullHD. In addition to that, the EC-70-LWXT is equipped with an LED light source, replacing common projection lamps, and giving you a much better image quality along with a longer lifetime of up to 60,000 hours. The other stall, besides our own eyevis booth, was also equipped with LCDs and Cubes.

Many of the visitors at Security in Essen from October 5-8, 2010 examined our products with interest and enthusiasm. It is always a great pleasure to present our products to you, our customers, in your own region. And to show and convince you of the extraordinary construction and image quality of eyevis products.

Last year's team, including Eric Henique, Martin Fiedler, David Mrnak, Sabrina Raschke, Andrew Shannon, Max Winck, Patrick Schaich and Christoph Pfäffle reported a large number of interesting and interested guests. We hope that there were a few new clients amongst them.

Innotrans: sitting and seeing better

Together with the Swiss experts from Deskflex and our partners at Recaro, eyevis had a cooperative representation at last year's Innotrans fair in late September as the all-round team for workstations with video walls.

Especially in control rooms and video surveillance centers, it is important to have all three components: an excellent video wall system, which eyevis provides you with, as well as a perfect modular system, intended for a screen working space, developed by Deskflex, and finally a professional office chair. Recaro is the producer for special purpose chairs. They have experience in building child safety seats, airplane seats and as a producer for car seats in motor sports. For special purposes as the working situation in a control room, they design and produce ergonomic chairs, which perfectly interact with systems from Deskflex and eyevis. More information on the topic office chairs can be found in this issue on page 28.

eyevis had a very special premiere at Innotrans fair this year: for the first time, we presented our new eye-LPD displays to the public. These brand new Laser Phosphor Displays have just entered the market and are the latest display type available from eyevis. A large number of visitors, coming to Berlin from all over Europe, were able to have a look at this revolutionary new technology as our latest product. Our team on the spot were Eric Henique, David Mrnak, Hans Günther Nusseck, Max Winck, Patrick Schaich, Jaime Villena and Oleg

Stodolnik. Maybe you were one of our visitors in Berlin. We would love to hear your feedback! At this point, we would like to thank our partners at Deskflex and Recaro once more, especially Caspar Brüllmann and Axel Renz. Our personal experience from Innotrans 2010 was absolutely positive. It was a great opportunity for all guests to have three different producers, whose products complement one another perfectly, in one place, in order to provide all-round solutions for professional purposes. Thank you all very much, partners, colleagues and visitors, for such a great fair!

TRADE FAIRS 2010

-) Intersec, Dubai, UAE
-) ISE Europe, Amsterdam, the Netherlands
-) Intertraffic, Amsterdam, the Netherlands
-) Hannover Messe, Hannover, Germany
-) IFSEC, Birmingham, England
-) Tehnika, Intern. Technical Fair, Belgrad, Serbien
-) FKTG-Jahrestagung, Hamburg, Germany
-) ITEC, London, England
-) H2O Accadueo, Ferrara, Italy
-) Interschutz, Leipzig, Germany
-) Expo Ferroviaria, Turin, Italy
-) InfoComm, Las Vegas, USA
-) Lirex 2010, Tripoli, Libya
-) IBC, Amsterdam, the Netherlands
-) Innotrans, Berlin, Germany
-) Congrès National des Sapeurs Pompiers, Angoulême, France
-) Energetics, Zagreb, Croatia
-) Security, Essen, Germany
-) ACQUA ARIA TERRA FUOCO, Rom, Italy
-) SATIS 2010, Paris, France
-) icoco 2010, Paris, France
-) 4th INTERROUTE & VILLE, Metz, France
-) Expoprotection, Paris, France
-) Interbee 2010, Makuhari, Japan
-) Sicurezza 2010, Milan, Italy
-) PMRExpo, Cologne, Germany
-) Roadex Raillex, Abu Dhabi, UAE
-) Italy Airspace Expo, Rom, Italy



Video wall as part of the scenery in a national TV production

■ On November 14, 2010, the new science fiction thriller series “Alpha 0.7 – The enemy in you” premiered on German television channels SWR as well as 3SAT and ARTE. As a main part of the movie, there are scenes in a control room scenario several times. These scenes show an eyevis video wall, built of 3x2 EC-60-LHD cubes, showing the brain streams of the test persons, which is a major part of the plot.

Six episodes on TV, six episodes to listen to, several science journals on the radio and further four blogs, two company appearances and some youtube channels on the internet.

In order to understand the thriller series „Alpha 0.7 – the enemy in you” completely you have to be well equipped on a medial level, and you have to take one week off, this is how producer Dominik Frankowski was joking. The SWR is taking a completely new direction in Germany and calls „Alpha 0.7” a trimedial project. The future vision of a monitoring state and a group of activists that fights against thought scanners, cameras and brain chips for potential criminals takes place in Stuttgart in the year 2017 and is a modern version of George Orwell’s classic movie „1984”. Accordingly futuristic is the presentation and the channels of distribution. TV, radio and internetversion (www.alpha07.de) tell complete finished stories that become complete when combined. Who has enough time can get lost in the little universe of the series, because even

the internet appearance of the fictional brain scanner company „Protecta Society” (www.protecta-society.de) is impressively realistic. That the old-established TV channel SWR is going new ways is an unusual but very praiseworthy development. (From the Berliner Zeitung, published October 28, 2010)

) INFO

EYEVIS CUBES: LOOKING GREAT ON TV

There is hardly any show on television that does not have at least one display in their studio and a lot of shows actually have larger video wall installations.

For all purposes on television, we highly recommend eyevis cubes, as they have everything necessary in broadcasting environments: excellent image quality in high resolution, visible from all angles, high brightness and clear colours as well as a minimal loss of picture quality through camera transmission.

How about our new DLP rear projection cubes with 60” inch screens and fullHD resolution?

) eyevisionary *Club*



eyevisionary Club - uniting the best of the best in the whole eyevis universe

DEAR CLIENTS,

success is hardly ever a matter of luck and chance, but the result of smart strategy, visionary developments and most importantly the combined effort of competent people. The point at which eyevis is situated today has only been reached thanks to these people – the best of the best of their particular branch. We are founding the eyevisionary Club as an exclusive association to unite and honor outstanding employees and clients of eyevis. The Club is intended to provide an opportunity for business networking, meeting and exchanging experiences with other members as well as the official appraisal of extraordinary achievements that are part of the success of eyevis.

BECOME A MEMBER

Being a member of the eyevisionary Club means to have a vision and the energy and knowledge to make it all come true. In other words: being eyevisionary! This is also the





guideline for admission in order to become a member of the club. The criteria one has to fulfill in order to become a member include several facts of all kinds, depending on your field of work. Every employee at eyevis in any position has the chance to become a member of the club. In the case of our clients, in order to be nominated for the club, the same rules count: you must have rendered outstanding services for eyevis and hence will be honored.

ENJOY THE SPECIAL STATUS

The rather small but prestigious eyevisionary Club pin, which all members will receive, is the outward identification of the club's members. It will be given out to new members along with the eyevisionary Club Award at our annual members' event.

This event is going to be the highlight of the year for all members. Imagine a ceremonial atmosphere, a very special night. We will be welcoming new members, giving out the eyevisionary Club Awards and experiencing an extraordinary program of presentations, speeches, sensational entertainment and culinary surprises. In addition to that, there is going to be the club's competition with very attractive prizes. Wait and see. As our

members will be awarded for outstanding achievement, our club's annual event will honor members with an outstanding event.

They say that it can be lonely when you are at the top. This may be proof for personal success. But the eyevisionary Club wants to unite those who have achieved more and who deserve to be honored for their success. Those who deserve respect will get it in the association of the best of the best.

We are looking forward to welcoming you in the club!



) INFO

Criteria for eyevis clients

The following list contains examples that will allow our clients to become a member of the eyevisionary Club:

-) high sales volume
-) purchase of a large video wall
-) large number of fairs/events
-) special ideas, developments or concepts
-) especially attractive installations
-) numerous successful recommendations
-) the best picture of an eyevis installation
-) special effort for a certain project
-) best fair booth
-) large investment for partnership with eyevis
-) large number of new clients for eyevis
-) special marketing activities for eyevis
-) large number of demonstrations for customers
-) integrating eyevis in a tender offer
-) anniversary of partnership with eyevis

¡Hola España!



It's about time

■ Our new branch office eyevis Spain in Madrid will be taking care of the Spanish market, as well as the Portuguese and Latin American markets. Head of the project will from now on be Jaime Villena.

With more than 20 years of experience and knowledge in the field of control rooms and AV as well as his experience in the countries concerned, he is the perfect man for this job.

For eyevis, Spain is a very important and interesting market. The developments over the last years show an enormous growth, the technical equipment of control rooms is being modernised more and more. As a logical consequence of these changes and demands we have now opened the new branch in Madrid.

Jaime Villena says "this step shows the ongoing development of eyevis as an international company. Our new office opens the door to our Spanish clients. They will have better opportunities to access the latest technologies while for the company it means that we can expand even further on the Iberian market."

We would like to thank Jaime Villena once more for his extraordinary commitment for eyevis. We are looking forward to going into a new direction in Spain, Portugal and Latin America together!



intersec

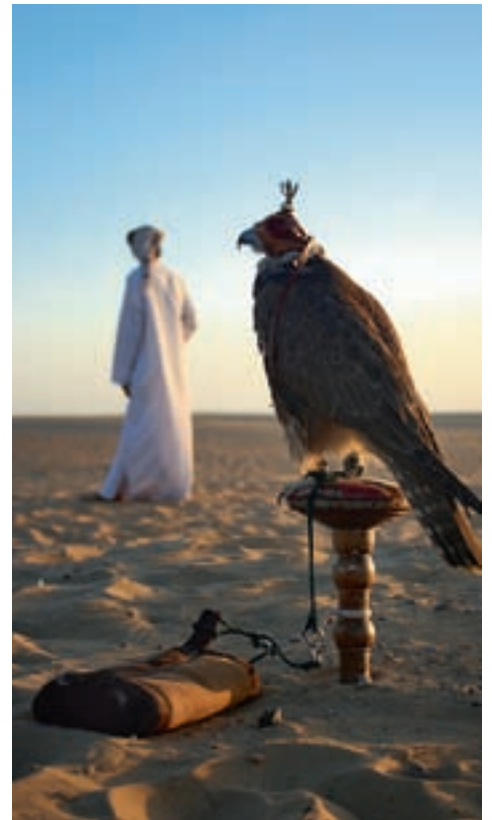
trade fair and conference

■ We have been working on the eyevis network throughout the UAE for a longer time now, especially after we opened our branch office in Abu Dhabi, eyevis Middle East.

For our present and potential future clients, we are going to exhibit our products at Intersec in Dubai again in 2011. On January 16-18, we will present our latest products at Intersec with our international team of experts. We will gladly inform you about everything there is to know at our booth. Feel free to contact us for an individual appointment, or just come and visit us directly on site. Looking back to January 2010, our team has had only positive experiences at the Intersec fair in Dubai. We are looking forward to this year's fair and hope to have as many great experiences as last year, as well as so many interesting guests visiting our booth. Intersec was a great start into the business year 2010 and we really hope it will be again in 2011. We are very positive about the developments on the market in the Middle East and expect the growth for our company there to continue in the years to come.

Thanks to our team of qualified specialists from all different fields, eyevis has been able to expand increasingly throughout the Middle East.

For more information, please visit our website www.eyevis.ae



New Showroom for Russia

■ The eyevis branch office in Russia recently opened a new showroom. Our Russian clients and future customers now have the opportunity to have a look at a large number of eyevis products directly. For those of you who have been to an eyevis showroom before, you know what it is like to see the products and user-friendly installations live in the showroom environment. It contains common control room video walls as well as our latest technologies, controllers and software for you to try out. This way, our colleagues in Moscow are able to fulfill

the demands of the growing market. A showroom gives the client the opportunity to gain direct experience of our products. And it gives eyevis the opportunity to present new technologies to the public. To see and experience our products at first hand is obviously the most important factor in making a decision to buy. Our displays and cubes need to be seen in order for you to experience them fully. From now on, our Russian clients have the chance to assure themselves of the quality of the real product which they have only known from

our brochures so far: the pure colour of the displays, the experience of large video wall installation. Along with the exhibition in the showroom we also offer training courses on working with our eyevis wall management software, or just trying it out.

Professional eyevis products are not afraid of the Russian winter and are from now on waiting to be visited at the new showroom in Moscow.

For more information on eyevis Russia, please visit www.eyevis.tv





It's 1:0 for Burnley FC

At the heart of British soccer

■ Eyevis UK & Eyevis GmbH are extremely proud to be associated with the Burnley Football Club 'Centre of Excellence' which specialises in the development of young football players within the highest levels of professional football within the English Football League.

An Eyevis 57-inch HD industrial quality LCD display is used for communication and presentation functions within the BFC Centre of Excellence.

Burnley Football Club (affectionately known world-wide as the 'Clarets') was founded in 1882, is one of the oldest football clubs in England and is one of the original twelve founder members of the English Football League, formed in 1888, and last year BFC enjoyed its first ever year in the Premier League (beating the likes of Manchester United, Everton & Tottenham)

The youth development programme within the club goes back as early as 1907 for local school boys whilst today the 'Centre of Excellence' has a total of over 230 young players within its operation ranging from age groups 5-9; school boy 9-16 and full time permanently employed youth team players aged 16-18, with players involved from a wide range of countries including England, Scotland, Wales, Northern Ireland, Southern Ireland, Belgium and Australia.

There have been too many excellent

players to mention here as testaments to the success of the BFC youth policy, however some that stand out during very recent times include Kyle Lafferty (now with Glasgow Rangers) Chris McCann (1st team BFC player currently injured) and Jay Rodriguez (Burnley born, 21 years old who has now claimed a regular 1st team place in the current BFC squad this season).

There are over 100 full and part time staff involved within the 'Centre of Excellence' operation including professional coaching

staff, sports science professionals, physiotherapists and scouts who are employed all over the world to look for emerging and promising young football talent.

The advanced, state-of-the-art Eyevis technology sits perfectly well with the ambitious plans for the 'Centre of Excellence' to continue the development of its facilities in order to reach the football league's full 'Academy Status'.

bottom: Martin Dobson and Steve Murphy





World champion

Congratulations, Sebastian Vettel!

■ The whole team of eyevis congratulates the world's best Formula 1 driver from the RedBull Team, our German Sebastian Vettel, on his championship 2010! With hard work and consequent discipline as well as lots and lots of practice, always keeping the championship on his mind, Vettel finally made it. During the very last race the decision was made, which kept it exciting until the end, and he became the youngest to win the Formula 1 championship ever. He

has followed his idol, the most successful driver of all times, Michael Schumacher, who was actually one of the first people to congratulate Vettel.

As we already mentioned in the last issue of eyevision, we were working together with the Team of Sebastian Vettel, RedBull Racing, for the German Grand Prix at Hockenheimring. Therefore we are especially proud, as this does now mean that

we worked for the world champion and supported him on his way, which is a great honor for us. We also like to congratulate his colleague, the second driver of RedBull Racing, Mark Webber, for an excellent third place in the championship of 2010.

It is now time to take a little break for everyone of the RedBull Racing Team, before they go back to work in order to continue last year's success with a new car. Good Luck!



NEWS FROM TÜBINGEN

■ The basketball team Walter Tigers from Tübingen in the south of Germany, close to the eyevis headquarters, is one of the best teams in Germany, playing in the first league of professional German basketball. Coach Igor Perovic and his Tigers work very hard to be that good. But it is not at all easy. The new year starts for the Tigers with three games in a row, starting at home against the teams from first Berlin and then Bonn. It has been a very exciting season so far and we are looking forward to seeing how it will continue in 2011! Get your tickets now and support the Walter Tigers at their home, the Paul-Horn-Arena in Tübingen. We at eyevis are proud of the Tigers and keep watching the games with excitement. Good luck in 2011!

For more information please visit
www.walter-tigers.de



) EYEVIS COOPERATIONS



WITH STRENGTH AND TECHNIQUE – EYEVIS SUPPORTS LOCAL HANDBALL SUPERSTARS

■ eyevis is one of the sponsors of the successful handball team of TV Neuhausen, who play in the second league of professional handball in Germany. Therefore we are very proud to announce that they are within the best teams so far this season. The home of TV Neuhausen is an arena called Hofbühlhalle in the small town of Neuhausen, not far from Reutlingen and the eyevis headquarters. This makes it easy for us to go and watch as many games as possible and to support our team. Just like every player of TV Neuhausen, our team at eyevis works hard every day to achieve success and to “win the game” for the team. Every day requires full focus and their very best job. But it is only possible to win if everyone in the team works hand in hand with the other players. An important part is fairplay and of course, it is about fun, it is about the excitement of the game!

The handball team coached by Markus Gaugisch has our company's name on their jerseys. We hope it brings them good luck and helps them a little on their way to the championship.

After a short break in January the season continues in early February. The season of 2010/2011 lasts until late May. For more information on the team, please visit the website www.tv-neuhausen.de



„Only those who work the hardest can achieve the most. The players of TV Neuhausen prove this every game day. eyevis wish them good luck for the rest of the season. We hope to see you amongst the first third at the end of this season!“ says Michael Schuster, CEO of eyevis.

New EYE-LCD Displays

■ With the EYE-LCD5500-LHD-USN, eyevis presents the latest super narrow bezel LCD display for video wall applications. The new display provides full HD resolution (1920 x 1080 pixels) on a 55" (139 cm) screen. High definition image quality, high contrast, best brightness and the super narrow bezel are the main features of the new display type. Thanks to their slim design **the resulting gap between the images of two neighbouring displays is only 5.7 mm wide.**

Previous super narrow bezel displays with conventional CCFL backlight technology are likely to show hot spot effects in the centre of the displays because the edges are less illuminated than the rest of the screen. In order to achieve a uniform illumination of the entire screen, eyevis provides its new EYE-LCD5500-LHD-USN with direct-LED backlight. Thanks to the new backlight illumination technology, the display provides very homogeneous images.

Recommended fields of application are for example control rooms (e.g. for CCTV systems), board Rooms, digital signage, conference rooms, Points-of-Sale / Points-of-Information, as well as for shows, events, exhibitions and in show rooms.

EYE-LCD 5500-LHD-USN



) TECHNICAL DETAILS

) LCD Display

Type:	EYE-LCD5500-LHD-USN
Installation:	Landscape/Portrait
Screen Size:	55" (ca.139 cm)
Display Resolution:	1,920 x 1,080 Pixel (full HD)
Colours:	ca. 16.7 M
Brightness:	700 cd/m ²
Contrast:	4,000 : 1
Frequency:	60 Hz
Backlight:	Direct LED

) Connectors

Inputs:	N.N.
Outputs:	N.N.

) Dimensions and Weight

Device: (W x H)	ca. 1323 x 694 mm
Bezel Width:	1.9 mm bottom/right; 3.8 mm top/left (Screen-to-Screen: 5.7 mm)
Weight:	ca. 32 kg

) Operating Conditions

Power Consumption:	ca. 240 Watt
Input Voltage:	100V – 240V AC, 50/60 Hz
Operating Temperature:	typ. 0 - 40 °C
Humidity:	typ. 20 - 80 % RH (no condensation)

) Options

Installation:	Display-Racks and Wall Mounts
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) EYEVIS INNOVATIONS



EYE-LCD 6000-SN

■ With the new display EYE-LCD6000-SN, eyevis presents the latest version of its super narrow bezel displays for video wall applications. The display comes with a screen diagonal of 60" (152cm) and native WXGA resolution (1366x768 pixel). Best image quality, high contrast, high brightness, high resolution, and the ultra-narrow bezel are the main features of these new display modules. Thanks to the narrow bezel of the displays, **the gap between the screens of neighbouring modules measures only 6.5 mm.**



) TECHNICAL DETAILS

) LCD Display

Model Name	EYE-LCD6000-SN
Installation:	Landscape / Portrait
Screen size:	60-inch widescreen (152.4 cm)
Max. Resolution:	1,366 x 768px (WXGA)
Max. Display Colours:	approx. 16.77 M
Max Brightness:	700 cd/m ²

) Connectors

Inputs:	PC analogue: mini D-sub 15-pin x 1 HDMI x 1 3.5 mm-diameter mini stereo jack x 1 RS-232C D-sub 9-pin x 1 Control Kit terminal x 1
Outputs:	Audio: RCA pin (L/R) x 1 RS-232C D-sub 9-pin x 1

) Mechanical

Dimensions:	approx. 1,335.9 W x 149.3 D x 754.2 H mm
Bezel Width:	2.4 mm bottom/right, 4.1 mm top/left (Screen-to-Screen: 6.5 mm / Content-to-Content: 7.1mm)
Weight:	approx. 44 kg

) Environmental

Power Consumption:	TBD
Power Supply:	100V – 240V AC, 50/60 Hz
Operating Temperature:	typ. 0 - 40 °C
Humidity:	typ. 20 - 80 % RH (no condensation)

) Options

Installation	Display racks and wall mounting structures	
Interface Expansion:	Inputs	PC digital: DVI-D 24 pin x 1 PC analogue: BNC x 1 Video: BNC x 1 S-Video x 1 Component video: BNC (Y, Cb/Pb, Cr/Pr) x 1 Audio: RCA pin (L/R) x 2
	Outputs	PC digital: DVI-D 24 pin x 1 External speaker 10W + 10W (6 ohms)
	Inputs/Outputs	10Base-T/100Base-TX x 1

Top Quality and unbeatable pricing



EYE-LCD 8200-HD

■ This new, professional 82 inch LCD-Monitor with S-PVA TFT-Display Panel comes with a perfect Full HD resolution of 1920x1080 pixels. The 16:9 Aspect Ratio makes landscape or portrait installations possible. This makes the huge Display a perfect fit for your control room, as well as for sales or information area purposes. Like all of our eyevis LCD Displays it has various input possibilities for excellent compatibility.

The metal standard chassis comes in black RAL9005, but different RAL colours are also available on request.

The EYE-LCD8200-HD is an exceptional and very large professional display. Its size of unbelievable 208cm diagonally makes it not only very useful, but a highlight in any environment.

Thanks to its flexibility and the various input possibilities, it is adequate for different installation purposes. In addition to that, it is optional available with professional high quality speakers.

) TECHNICAL DETAILS

) LCD Panel

Technology	S-PVA LCD
Max. Image Resolution	1,920 x 1,080 (full HD)
Colours	16.7M (8bits-true)
Viewing Angle	178° / 178° (H/V)
Response Time	8 ms (Grey-to-Grey)
Contrast Ratio	1200:1
Brightness	600 cd/m ² (Typical)

) Connectors & Control

Inputs:	1 x Display Port up to 2560x1600 (60Hz), HDCP support 2 x HDMI 1.3, True High Definition 1080p, HDCP support 1 x RGB (15-pin H-DSUB female), captures up to 205MHz, Supports up to 1792x1344@60Hz or 1920x1260@60Hz or 1600x1200@75Hz standard modes 1 x Video Input, supports Composite Video, S-Video, and Component Video 1 x 3G-HD-SDI input (optional) 1 x RS232 Serial Port 1 x Audio In (L/R Cinch)
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) Power Supply

Input Voltage	100-250V 50/60Hz; Integrated Mains Adapter
Power Consumption	950 Watt (max. 1400 Watt)

) Environmental

Temperature	0-40°C (<50%RH)
Humidity	20-80%RH (T<40°C)

) Mechanical

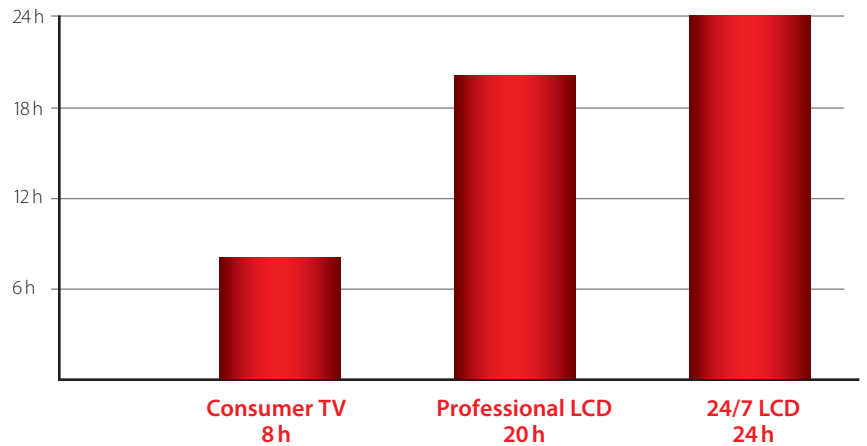
Screen Diagonal	82" (ca. 208 cm)
Screen Area	1808 x 1016 mm
Dimensions (WxHxD)	1926 x 1137 x 150 mm
Bezel	top/bottom 60.5mm, right/left 59 mm
Weight	110 kg

) Options

Input Option:	3G-HD-SDI Input
Audio:	High Quality Speakers + integr. Amplifier
Touch:	Optical Touch Surface
Installations:	Different wallmounts and stands available



Recommended Maximum Daily Operation



Not just a regular TV: Professional LCDs vs. Consumer TV LCDs

■ There are LCD Displays almost in every environment nowadays: in shopping malls, restaurants and bars, train stations and airports and many other places. One thing that they all have in common, no matter what the monitors are being used for, is that they stand in a public place and are intended for representative causes. This also means that they are running for a much longer time than your regular TV at home. We highly recommend professional LCDs for the usage in professional environments. But is this really necessary?

The same slim design and the low prices appear to make consumer TV LCDs more attractive for any application. They are easy to get at any retailer for consumer electronics nearby. And yes, they are a lot cheaper. But the question is, do they live up to the requirements of a professional application, which really is a lot different than in the living room situation? The answer is no, because consumer TV LCDs are purely designed for the home use and can't comply with the requirement of a professional application.

Consumer LCDs are designed for an operation of 8 hours per day and use components of a lower quality than professional LCDs. The professional LCDs can be used for at least 20 hours per day, there are also professional LCDs available which can be used 24/7.

Consumer products typically use what is referred to as TV LCD panels. The specifications and quality are lowered for this type of product in the following areas: brightness uniformity, colour uniformity, dead pixels (both on and off), image retention, product lifetime, higher brightness, higher colour gamut. In addition to that, the all plastic cabinet leaves no space for ventilation. This means lower initial cost, but disadvantages when it comes to performance, quality and reliability. Also, a consumer TV has less features and options, especially when it comes to professional applications. They are simply not designed for long hours of operation or wide temperature environments. Also, they are designed for accurate flesh tones (white point look pink) and certainly not for portrait mode, hanging, flying, horizontal up or down installations, neither are they intended for video wall applications (no stacking frames or hanging options).

Professional DID LCDs are designed with particular attention to long-term operation. In order to accomplish this, DID LCDs feature additional ventilation, cooling systems and heat sensors which reduce the chassis temperature. Further distinguishing features are:

-) Use of "A" grade LCD module glass with tighter specifications
-) Built for 20 hours (some for 24/7/365) operation and wider temperature range

-) Incorporate a large number of bi-directional controls through RS-232 communications
-) Designed also for portrait mode, hanging, flying, horizontal up or down installations therefore for a wider range of applications
-) Incorporate diagnostic functions including temperature monitoring, colour calibration, etc.
-) Wide variety of inputs/outputs and internal scalers
-) All metal cabinet with only a plastic bezel
-) Cabinet colour and surface are made to blend in with the environment, cabinets available in different colours
-) Video wall applications possible
-) Wider range of hanging and installation possibilities
-) Availability of numerous mounting accessories
-) Digital loop-through
-) Large ventilation areas including internal fans
-) Protected against dust

The differences of consumer and professional LCDs are crucial when it comes to the usage in a professional environment. Therefore, it is always better to invest in a higher end technology product.

And in case you are wondering: we will be happy to install a professional video wall in your living room!



Two partners – a lot more for you

■ Just like eyevis, the software producer SeeTec is a Germany-based company with international presence.

SeeTec is one out of a large number of partners that eyevis has. They design and produce high quality and efficient software for video security. As the clients of eyevis are very often from the security branch, it was a decision for the comfort of our customers to start cooperating in 2006. Ever since then we have been producing our individual products with a customer friendly interface on both sides. The compatibility of our products with SeeTec software is excellent and the integration with one another works perfectly. For our clients of the security sector this means no unnecessary problems when installing a new software or video wall system.

On our conjoint booth at Security fair in Essen, Germany, we presented our products together to the customers. Exemplary installation showed the guests sample applications for combined installations of SeeTec and eyevis products. There are other international fairs at which we have been exhibiting together. Solutions from SeeTec work perfectly with products from eyevis. A recent example of our combined work is being built in Iran at the moment. There will be 326 channels played on just one single video wall. It will have four positions for controlling the system on the video wall at the same time.

New interface: WinGuard by Advancis

Another new partner of eyevis is the software producer Advancis, who have now created a new interface for combining eyevis products with their WinGuard software in an integrated system.

The integration leads to many advantages for the user. With WinGuard you are now able to use earlier defined presets in the eyecon software. Presets are individually set arrays of sources on the wall.

In WinGuard there is an interface with a single point of data, it is called „supervisor“. In the projecting you can create buttons that can send control commands to a database.

To put it in a nutshell this means that the WinGuard software is able to display inputs on the wall directly out of WinGuard manually or automatically (video manager, further screens etc.). This is especially interesting for solutions like Layout Manager and Log-Files.

A practical example:

Multiple operators share an eyevis large screen system. Each of the operators is responsible for different locations or tasks. At an incident that is relevant for user 1, the client automatically sends a preset to the wall, this preset contains the specific information that have been set for user 1. Beneath displaying presets WinGuard is now

able to send the displayed information in coloured boxes. This function can be compared to the functionality of a digital notification display.

This becomes clear regarding the following example:

In the case of an alarm the displayed content can be shown with a coloured overlay that contains the name of the concerned area.

With these two and many other partners eyevis is trying to make the work of our clients easier and keep out any technical complications.



Brilliant!

The new EYE-LPD Display series is the latest addition to the eyevis product range and a great system for large screen installations. The revolutionary technology of Laser Phosphor Displays improves the image quality tremendously where at the same time, it also decreases electric power consumption, compared to regular professional displays. The power consumption of an average LED display is 1200 Watt, a eye-LPD of the same size needs only 155 Watt (average value for a 100" screen).

The new eye-LPD bring together brilliant colours and brightness, a very long lifetime, it is environment friendly and really flexible, all in just one system. It is great for building video walls of very high picture quality.

This helps everyone:
yourself, your clients and the environment!

*These values refer to a conventional LED module (like they are used in stadiums) compared with the LPD technology on the basis of 100" screen diagonal.

Small but powerful!



A new gadget: The new eyevis EYE-EDID-SIM-DVI emulator is a programmable DVI DDC-EDID and Hotplug-Simulator, which emulates the selected/programmed EDID to the attached PC computer (emulating a DVI display) for continuous video output, even if the attached display is disconnected or powered down.

The advantages are:

-) continuous output signal even with a disconnected or powered off display
-) possibility to upload any EDID to the EYE-EDID-SIM-DVI
-) no need for additional power supply
-) suited for DVI single link and dual link.

Nothing is pixelized no more



The new EYE-PxP alignment tool features a comprehensive toolset for calibration of single- or multi channel display systems, whose projection channels need colour and brightness correction due to the deviations of the projection devices. The EYE-PxP provides an easy-to-use GUI that enables comfortable configuration for one or multiple channels.

What exactly does the eye-PxP do:

) Gamma Correction

24 bit LookUpTable (LUT) for gamma correction. Freely uploadable curves. For each colour an individual LUT can be uploaded.

) Alpha Shading

Pixel wise transparency correction for hot spot correction, blending and masking.

) Colour correction

3x3 colour transformation matrix for colour space transformations. Independent offsets for Red, Green and Blue for brightness correction (black level increase).

) Colour shading

Pixel wise colour correction for shading correction.

) Resolution Pass-through

The device can be easily integrated into any system environment without the necessity to configure the desired resolution.

) Embedded DVI analyzer

Resolution analysis of the connected DVI-D source measured and read out to ensure a correct resolution setting of the connected image generators.

) EDID simulation

DDC-EDID emulation to ensure easy integration with any image generator.

) Permanent parameter storage

Any setting and parameter can be permanently stored on the device. After a power cycle, no connection to PC is needed to activate the setting stored last.

) No latency

Based on internal processing, the latency is reduced to a minimum of a couple of pixel. This ensures a lipsync fully genlocked processing of live video streams.

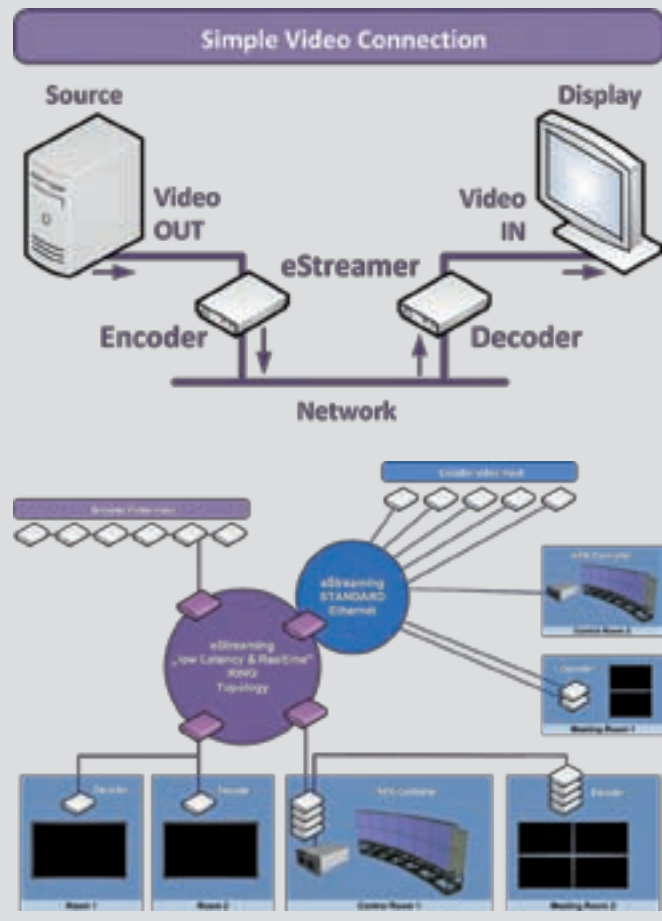
Preview: eStreamer



There is hardly anything as exciting as good news. And who can wait if there is something exciting to tell? In our case, it is our brand new eyevis eStreamer series, which will be a new product for eyevis in 2011.

There will be a lot more on the new eStreamer in the next issue of eyevision, but we wanted to give you a little teaser and look-out on what there is to be coming next. The eStreamer is a brand new product which helps to transmit a video signal flexible and spread it in a standard network. This makes the work in a lot of environments much easier, as a complicated network of cables is unnecessary now. And also, expensive periphery products, such as matrix switchers and distribution amplifiers are no longer needed. The eStreamer works as a single device as well as in combination with other eyevis products and can be controlled through the network.

We hope that this new product is something that you want to know more about. More information in detail will be in the next issue of eyevision.



No more distortion or deformation

The new EYE-MDP, a DVI- Matrix & Delay Processor for eyevis visual display solutions in TV studio applications.

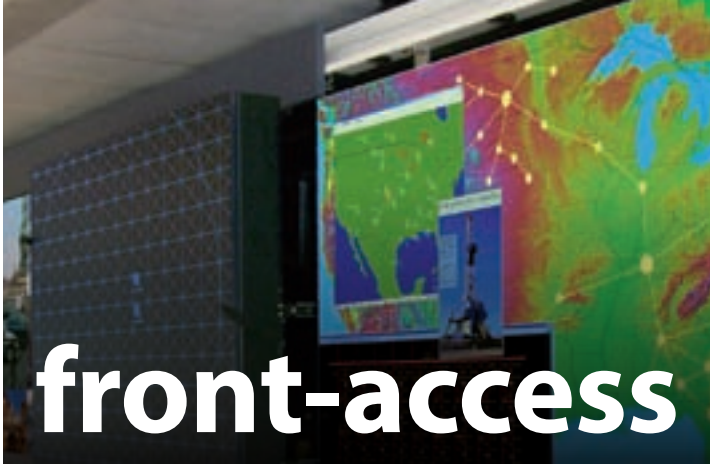
In TV studios it is important to have a displayed signal that is fully synchronised with the genlock, especially when the image is split (up-scaled) on several displays. Therefore, eyevis developed the EYE-MDP, which enables a signal splitting for the fully synchronised display on modular video walls. The free scalability and positioning of the image sections allows a highly flexible spreading of the image signals on multi-channel video walls, as well as the bezel elimination for narrow bezel displays or non-uniform bezels.

The EYE-MDP provides DVI connectors for input/output signals (WUXGA 1920x1200@60Hz or 2k 2048x1200@60Hz). The functionalities further comprise internal EDID emulation, image flipping and image tiling (with sub pixel accuracy). The device comes with matrix presets for display walls up to 20x20 elements. Larger wall sizes are also possible.

Technical Specifications:

-) Input / Output: DVI single link up to 165MHz pixel clock (WUXGA 1920x1200@60Hz or 2k 2048x1200@60Hz)
-) Latency: Adjustable up to 256 lines (single buffer) or one frame fix latency (double buffering)
-) Internal EDID emulation
-) Image flipping: Vertically and horizontally
-) Input Power: 5 Volt
-) Power consumption: 6 Watt
-) Connection: RS232 (TTL)
-) Image tiling:
 - Free scaling and positioning with sub pixel accuracy.
 - Matrix presets for up to 20x20 display elements. Larger wall sizes also possible.
-) Weight: 1.25 kgs
-) Dimensions (LxWxH): 25.4 x 21.0 x 7.0 cm
-) Available as embedded version for eyevis DLP® Cubes





It's a matter of distance

■ Large screen systems that have rear access for service and maintenance have fixed screens and therefore a maximal gap of 0.68-0.8 mm between the individual modules (this gap is necessary to allow for temperature-caused variations of the materials). Frontal maintenance requires movable screens. This mobility of the screens is only possible with wider gaps between the cubes. The width of the gap between two front-maintenance cubes is up to 2 mm, so we cannot talk of a "seamless" video wall anymore. The distance from pixel to pixel can be up to 1 mm with conventional rear maintenance-access, and this gap can be up to 2 mm with front-maintenance cubes (pixel to pixel).

Mechanical Reliability (Limitations):

Since the screen frame has to be moved for service and maintenance works, it must be guaranteed that its construction and installation is done in a very stable and accurate manner. Repeated opening and closing of a low-quality construction will lead to maladjustments of the screens, which will result in a loss of sharpness for the entire video wall. Already, variations in distance of only a few tenths of a millimeter can affect the sharpness of the entire system.

Maintenance (exceptions with front-maintenance access):

The service staff has to stand in front of the video wall to do their work. This means they have to stand directly in the view of the people who are watching the video wall, so the operation of the entire wall is disturbed for a while. Video walls with rear-access for service works can be repaired while the wall is in normal operation, except for the cube being repaired.

Advantages:

- + Saves space, no space for service and maintenance work behind the video wall required.
- + No rail-system needed, which compensates for the higher price of the cubes.
- + Electronic geometry adjustments with remote control or keyboard.

Disadvantages:

- Wider gap between the cubes, up to 2 mm instead of 0.68 mm with conventional cubes.
- Difficult to service in operation, service staff disturbs the view on the video wall.
- Danger of damages and scratches that may happen to the screens of larger video walls, if the screens are not handled with adequate care.

- Servicing larger walls may require the use of a scaffolding or an elevating platform, which leads to higher costs.

Even though eyevis prefers rear maintenance systems, frontal-maintenance systems are available for some of the rear projection cubes. eyevis has always given special attention to important matters such as the mechanical stability and accuracy of its products. This guarantees that there are no image distortions with eyevis frontal-maintenance solutions when they are appropriately handled. In order to have the same minimal gap as with rear-maintenance systems, eyevis developed rail systems for their entire cube range. The purpose of the rail system is the possibility to mount the video wall directly in front of the wall of the building. For service and maintenance works, the rails simply have to be fixed to the basement, in order to drive the wall back and forth. The basement is made of a distortion-free steel frame with linear driving ability. The mechanism of the rail system allows the cube wall to drive back and forth without any tilting. There is no readjustment of the cube wall necessary after the movement. The large screen wall can be locked in end position.

Decoding Video IP Streams



FIND OUT WHAT THIS IS AND HOW IT MAY HELP YOU.

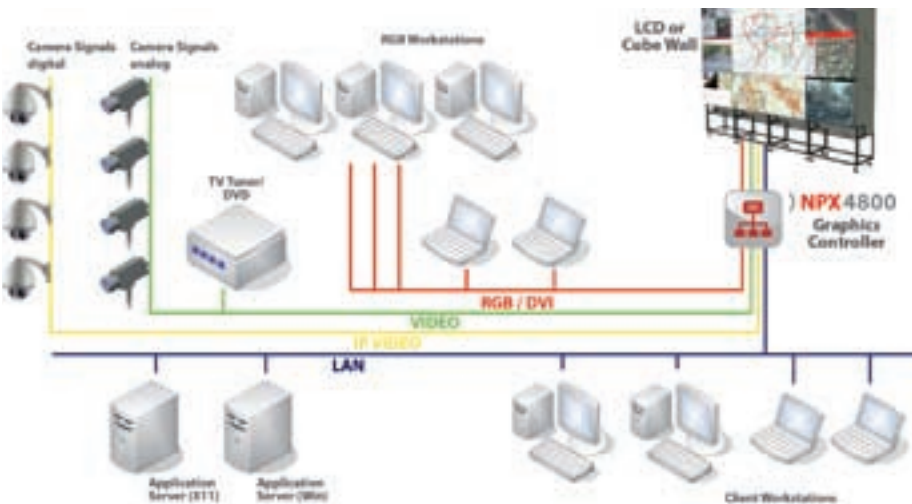
■ Video IP Streaming is a common and popular technology, which has been asserting itself over the years more and more, so that it will be indispensable from now on. This article will introduce you to the operating mode and advantages of IP Streaming.

What does IP streaming mean?

The process of transmitting video, display, audio and data material via an encoder in an IP based network is called IP streaming.

a large number of cameras can be viewed in one single place because a 1:1 cabling in no longer needed. The material can also be accessed from all different points inside of the network and be managed from there as well. This multi cast principle lets the material "multiply" itself and makes an access at various points in the network possible.

The advantage of multicast is that one video stream can be broadcasted to several members of the network or only to a specific group of people without the bandwidth being multiplied with the number of recipients. With multicast, the sender only needs the exact same bandwidth as every recipient. In the case of data transfer of a package, the multiplication of the package happens at every single junction (Switch, Router) on the route of distribution.



Example of a multi-source video wall installation

The encoding device transforms the data content into a streaming protocol, such as for example an RTSP. In order to increase data rates, the video contents are being minimized in advance with a codec. The current formats of video material are MPEG-2, MPEG-4, MJPEG and H.264.

What is the use of it in practice?

IP streaming makes it possible to use an already existing network facility easily. Camera signals can be carried via this network. The old-fashioned and complex wiring of analog cables becomes unnecessary. In addition to that, signals can be easily carried over longer distances. And

Can I change my network to IP streaming? Does this contain any risks?

All that probably sounds absolutely convenient and relatively easy. But besides all these advantages, it takes a little more than simply plugging in a network camera with a switch.

Especially when it comes to larger installations, the network must be laid-out and configured for this application. Otherwise it might happen that only a few multicast streams already overflow the network. But special switches that support the IGMP network protocol can prevent that. It is absolutely necessary to have your

network ready for the use of multicast. Without precautionary measures, the conversion or insertion of IP streaming may have more serious consequences than just a black display.

Is IP streaming applicable for any system, even with camera control, or are there any differences?

A good and precise planning about what kind of streaming is required for which protocol and the actual purpose is essential in the end. When integrating IP cameras in a large screen system or video wall controller, there are several things to consider. IP video cameras are being used more and more often. There is a large number of producers of these cameras. Most of them make use of the standards, such as MPEG2, MPEG4 and H264. But they are still different a different codec from another producer and might not be identical. There are plans to find an overall standard in the future. But for now, large screen producers like us at eyevis, who also offer display wall controllers and IP decoding devices, have to cope with the challenge of embedding new cameras into the systems. This may take some time, depending on the producer of the cameras and their will to cooperate, as far as there is no RTSP available and the camera producer can not make the necessary information available for us. Therefore, it is important to find out everything there is to know about the camera producer, type etc. in time, before the actual project starts. We have already integrated most of the common camera types and producers, but priorities must be assigned, due to the mass of different cameras on the market.

Our eyevis IPDU/IPD8 generally supports all cameras who use the connecting protocol RTSP and RTP, who support data via Unicast/Multicast and the codec MJPEG, MPEG-2, MPEG-4 and H.264. When a producer sticks to these standards, an integration of IPDU/IPD8 is relatively easy and quick. But if not, one depends on the SDKs of the camera producers for the integration in the network.

If you are interested in IP streaming, we recommend contacting professionals in any case. Together, we will find the solution that is the most reasonable, practicable and affordable for your company in order to us IP streaming for you purposes.



eyevis Cubes: more than 500 times in Korea

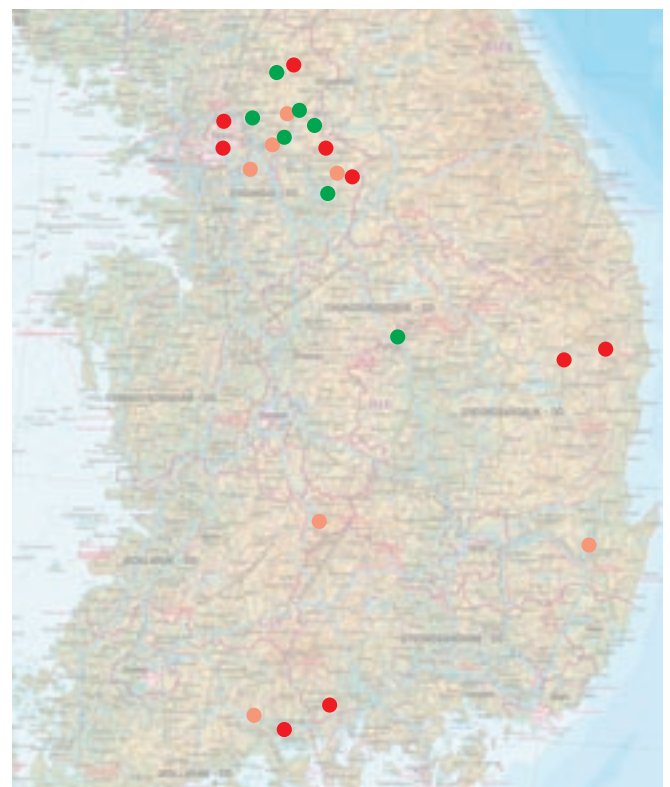
■ The Korean Electric Power Corporation, or short KEPCO, had us install more than 500 eyevis Cubes all over Southern Korea over the last three years. This way we have built a network of installations all over the state. The Cubes support the work of KEPCO in the headquarters, in control rooms and IT-centers.

For example we have built special installations with eyevis Cubes systems in 7 IT-centers all over Southern Korea. At every location there is now a videowall built of 15 rear projection cubes with a 50" screen, netpix Controlers and eyevis Wallmanagement Software.

One of our latest installations was built on Jeju Island, right off the coast of Korea. In their electricity guidance administration there have been installed 18 EC-50LSXT+ Cubes in an 6-in-3 video wall.

See the graphic on the right for more detail on the locations of our installations.

- JeollaNam-Do
- JeollaNam-Do
- GyeongGi-Do
- GyeongSangBuk-Do
- GyeongSangBuk-Do
- In-Cheon
- GyeongGi-Do
- GyeongGi-Do
- Seoul
- GyeongGi-Do
- Seoul
- Seoul
- Seoul
- GyeongGi-Do
- Seoul
- ChungCheongBuk-Do
- Seoul
- Dae-Gu
- JeollaNam-Do
- In-Cheon
- GyeongGi-Do
- Seoul
- JeollaBuk-Do



- KEPCO Main Centre, 50" DLP CUBE
- KEPCO Managing Centre 67" DLP CUBE
- KEPCO IT Centre 50" DLP CUBE



Installation at security control center for G20 Summit Seoul



■ The G20 was established in 1999, in the wake of the 1997 Asian Financial Crisis, to bring together major advanced and emerging economies to stabilize the global financial market. Since its inception, the G20 has held annual Finance Ministers and Central Bank Governors' Meetings and discussed measures to promote the financial stability of the world and to achieve a sustainable economic growth and development.

To tackle the financial and economic crisis that spread across the globe in 2008, the G20 members were called upon to further strengthen international cooperation. Accordingly, the G20 Summits have been

held in Washington in 2008, and in London and Pittsburgh in 2009.

The concerted and decisive actions of the G20, with its balanced membership of developed and developing countries, helped the world deal effectively with the current financial and economic crisis. The G20 has already delivered a number of significant and concrete outcomes. It committed to implement the unprecedented and most coordinated expansionary macroeconomic policies, including the fiscal expansion of US\$5 trillion and the unconventional monetary policy instruments; significantly enhance the financial regulations, notably by the establishment of the Financial Stability Board(FSB); and substantially strengthen the International Financial Institutions(IFIs), including the expansion of resources and the improvement of precautionary lending facilities of the IFIs.

Building on past achievements and close cooperation among members, the G20 will

double its efforts in 2010 to help the world make a successful transition from global recovery to stronger, more sustainable and balanced growth.

The Republic of Korea announced that they will spare no effort to ensure success in 2010.

In order to ensure the safety of the summit, the committee decided to install a control centre. This control centre has been equipped with a large screen system by eyevis – made in Germany.

Products installed:

) 8x EC-50-SXT+-CP-DL

) EYEVIS CASES – „DEUTSCHE BÖRSE“ FRANKFURT / HOCHOFEN DUISBURG

LCD VIDEO WALL AT DEUTSCHE BÖRSE, FRANKFURT



■ The new eyevis LCD video wall at the Deutsche Börse stock exchange is quite possibly the largest of its kind in all of Europe. Located in Frankfurt Am Main, the massive screen display is over 33 feet long and 13 feet wide, and comprised of 70 LCD display units.

Deutsche Börse wanted a massive video wall that greeted guests as they walked into the main lobby. Because the stock exchange greets international guests from all over the world, the video wall had to be colourful, vibrant, long-lasting, reliable, and classy. In order to fulfill this, eyevis utilized its state-of-the-art EYE-LCD-4600 displays with Super Narrow bezel. These unique units have a pixel-to-pixel gap of only 7.3 mm, making them ideal to allow for a smooth, uninterrupted picture. Furthermore, the visual inputs are displayed by two netpix graphics controllers, and the images on the wall are organized by the eyecon wall management software. The complete system works fluidly, in perfect harmony. Throughout this project, several obstacles arose that many thought to be unconquerable, and for this reason there was a large amount of customization required to create the Wall. One such problem was the tendency of narrow-bezel LCD units to display a "hotspot" effect. A hotspot effect is when the LCD units display a clear, bright picture in the center of the display screen, but a darker and distorted image around the edges. This phenomenon occurs in every super-narrow LCD from every manufacturer, and on normally-sized display walls, it is essentially unnoticeable. However, this is no ordinary display wall. A hotspot effect in each unit of a 70-unit display wall would result in a picture that is imperfect at best. Therefore, eyevis' tech department created a new technology that actively analyses the display status of each unit, and appropriately darkens the center

and brightens the edges to create a perfect, uniformly coloured display from every unit. The technology was perfected in a short amount of time, and because of the crack work done by the eyevis team, the Video Wall is able to function as intended.

Overall, the Video Wall is considered a grand success by both Deutsche Börse and eyevis. If you have the chance, we highly recommend going to see this technological wonder in person.

eyevis products installed:

-) 70 x EYE-LCD-4600-SN
(46" super narrow bezel LCD with WXGA resolution)
-) 20 x EYE-PxP (Pixel processing unit for HotSpot corrections)
-) 2 x NPX4820R-D8-G1.0 (High-end Graphics Controller)



BUILDING OF A NEW BLAST FURNACE

■ Security System from Reutlingen

The building of the new blast furnace 8 was the first new building of a blast furnace in Germany for over 15 years. Even though the company ThyssenKrupp has various projects outside of Germany, this building has a strategic meaning.

Because this new built blast furnace 8 will, so says the company, built and secure 1200 new jobs directly and another 3600 jobs in the area. The whole concept of the new building of the blast furnace 8 also includes a modernization of the neighbouring blast furnace 9. Together this project will increase the productivity of steelmaking by 28 per cent.

Blast furnace 8 will be producing 5600 tons of hot metal daily. Altogether for the building of furnace 8 and modernizing furnace 9, there were spent 340 Million Euros in Duisburg.

The two blast furnishes 8 and 9 will be secured and monitored by two eyevis video walls. Both of them are built of 4x2 rear projection cubes of the type EC-50-SXT-DL-CP. Each cube has a 50" screen and a resolution of 1280x1024 pixels. A problemfree usage 24/7 is guaranteed due to the automatic double-lamp system inside. The two redundant eyevis splitter NPX-3800R are additionally equipped with Siemens PCS-7 Software and an eyevis eStreamer for every single Cube. The complete installation is being controlled with an eyecon Control Server ECS-900, which helps to fully use the resources for a perfect performance.



Face the choice: is new always better?



■ When a company decides to invest in a new display system, the best and latest technologies are expected for an excellent visual result.

The demand for new and possibly narrow display cubes for the building of a video wall is growing. A new cube is not only wanted as narrow as possible, but also is it to be better for the environment and of course cheaper than the traditional cubes. But at what expense can this be made possible? Are these expected advantages really as good and are the cubes as good as larger, traditional ones?

Which technology is actually the better one: the traditional devices or the new narrow displays? In order to understand the difference of the two systems it is necessary to know the assembling of the cubes. Traditional rear projection cubes have their projector inside of the body which projects vertically to the top. The pictures of this projector reflect in just one mirror, which is installed in the upper part of the body, in an angle of 45° and is then projected from behind on the front pane of the cube. The narrow cubes, opposing to the traditional ones, have two mirrors instead of just one. This means that the picture itself is mirrored twice, which is called a Z-projection. In order to keep the body of the cube as narrow as possible the focal length is reduced, which leads to a decrease of the final image quality.

The advantage of the Z-projection and this buildup is primarily a physically narrower body. But it also means that the light scattering is wider, in order to fill out the

same frame size with less distance. By that, a part of the light is lost on the way, which is more than with just one protection, so the narrow cubes are not as bright as the traditional ones. This configuration has the light in the middle of the front pane cover a shorter distance and has therefore a much higher intensity than the light of the image in the outer parts of the projection. In the middle of the image, the light enters the front pane from behind in an angle of 90°, but the other parts of the image meet the front pane in other, worse angles. This causes the image to appear much brighter and clearer in the middle than in the outer parts. So when it comes to image quality, the narrow body cubes are definitely not the better option. But as the cubes were designed in order to built a video wall in larger groups of cubes, the unevenness of the projection in every single cube leads to non-uniformity in the whole installation. It might happen that there is a loss of image quality of the buildup due to the irregular brightness in single cubes. In conclusion, the image quality of the Z-projection cubes is not as fine as the projection of the traditional cubes with only one mirror inside.

The new generation of cubes has been introduced as more environmental friendly, because they are smaller and lighter. Another argument of the producers of the cubes was the lighter weight due to the Z-projection system, which will lead to a reduction of fuel needed for the transport. But the different of weight between the new and the traditional product is not that much to account for this argument. So this leads us to the question whether a minimal decrease of resources is more important than the image quality of the video wall in a control room? There are many ways to act environmental friendly, but risking the reliability in your control center should not be one of them.

The third argument that is intended to advocate the new generation of cubes is that their smaller size means that they need less space in a control room, which is very important with today's real estate prices. This actually is an important factor, as space available should always be used reasonable. But it is not an argument for

the cubes, as it leads to a misunderstanding and confusion. The product's data sheets say that the new cubes need an installation depth of 450mm, which is less than the approximately 600mm of traditional cubes. But in addition to that, there is the vague number for distance between cube and the wall behind it. This space is necessary, as the narrow cubes need an add-on in their back to place the projectors in position, as well as some additional space for ventilation. Traditional cubes do not need both of that. The additional space needed for the Z-projection cubes adds up to 595mm of distance needed from the wall of the room to the front pane of the cube. This is not at all a significant difference from the 600mm of the space a traditional cube installation needs, especially not if you keep in mind that there is a visible cut back in the image quality because of the narrow design. The less space that the smaller cubes need does not actually account, because there is more space needed for routine maintenance. Most of the video wall installations are using a system of being accessible from behind, because a technician needs some space to work. The assumed benefits of the new, narrow cubes do not justify their high costs. The reduction of image quality and the difference in size, which does not mean a reduction of space needed, combined with their weaker frames which make them prone to vibration irritations, lead to the final conclusion that the new cubes are not as good as they sound at first. Until there is really a major invention, which leads to an improvement of the image quality and a smaller price, we will stick to the traditional system as the one and only solution.





Special: Control Rooms

■ eyevis is your number one partner for equipping your control room with professional large screen systems, displays and monitors. We have decades of experience on the sector and have worked on various high security standard projects so far. You can always rely on systems from eyevis, which is why so many security specialists trust our products and us. All over the world, our installations can be found in control centers of different branches, wherever secure environments are necessary.

Over the years, we have gained different partners in order to provide the full service for our clients when it comes to professionally equipping a control room. One of our important partners is Recaro, who have contributed an article on healthy sitting in control rooms on page 28. It is important to have a professional chair, in order for the employees in front of the video wall to stay healthy and focused. When working in the

security branch, it is important to remain concentrated all the time, without your hurting back or other factors distracting you. That is why we work together with other professionals: to give our clients and systems the professional environment they deserve.

THE NECESSITY OF DISPLAY SYSTEMS IN A CONTROL ROOM

When your \$100 million project is on the line, how much risk are you willing to take?

Most likely as little as possible. Mission success, whether you are launching a rocket or managing a security system, often relies on a secure and effective control room, operated by a team of professionals working as a single unit. No matter what the application, one component is often found in these control rooms: a large screen display system. However, are these display systems really necessary in a control room? What are the benefits of having one?

In addition to the aesthetic and marketing benefits, the practical benefits of having a large screen display system in a control room are overwhelming: Firstly, it unifies a control

room team, and helps to focus the synergy and attention of the group. Secondly, it allows management and authority figures to instantly assess a situation and take quick, decisive action. Finally, a large display system provides a single place to view multiple source types, and allows for 24/7 operations. Let's take a closer look at these advantages.

In a control room full of operators, each individual person is usually assigned to a specific task. For example, in a security centre, one person is assigned to monitoring security camera feeds, another to alarm systems, another to access codes, and so forth. This configuration is essential, because different professionals specialize in different components of the overall task at hand. However, this can also result in a loss of central focus—if each person becomes too invested in his or her individual job, the control room can become uncoordinated and inefficient, which can have severe consequences. This is where a large screen display comes into effect. With a continuously updated mission summary shown at the front of a control room, the operators can focus on their individual tasks



while keeping updated on the grand scheme with just a glance towards the front of the room. In the example of the security centre, this means that when an alarm is tripped, the security camera operator can provide a feed of that area while the access operator can lock down that sector. In this case, the display system effectively ensures the old adage that “the whole is greater than the sum of its parts.” Of course, the benefits don’t only apply to the operators in the room.

When a manager faces a situation in which an important decision must be made, he or she wants clear, accurate information as quickly as possible. Walking into a control room for a situation report can be an intimidating and confusing predicament, especially during an alarm or crisis. This is another reason why a display system is so helpful—with a single glance, managers and authority figures can instantly assess a situation because all of the necessary information is neatly displayed on a giant screen at the front of the control room. In a time-sensitive situation that requires swift action, this clarity cannot be replicated in a verbal report or on an individual operator’s monitor; a large screen

display system is the most effective way to give the decision-makers the information they need. This significantly lowers the risk of poor decision-making and a ruined project or facility. For this exact reason, it’s also important that the information is readily available at all hours of the day or night.

Many people ask, “Can’t the operators’ individual station LCD monitors accomplish the same tasks that a large screen display does?” The answer, of course, is no. Of the many discrepancies in their performance abilities, one of the greatest separating factors between a large screen display and the individual operator LCDs is the ability to function around the clock. It goes without saying that for such an essential control room investment, the reliability and functionality of the large screen display is paramount; large screen display systems are often designed to be operated 24 hours a day, 7 days a week, year round. Individual desk LCD monitors simply cannot handle the long hours of operation that a large screen display can. This is particularly true when static images must be displayed (such as a security camera feed or the valve systems of

a refinery), because while most operator desk monitors are subject to burn-in or “ghost” effects, rear-projection cube systems are much more resilient to these problems. This means that on a large display, you can show the same image 90% of the time, but have no disruptive screen effects in the event that you need to display a new image or feed.

Aside from the strictly operation-based benefits, a large screen display system can be a highly impressive tool to show to visitors and investors of your company. A neatly organized, well-focused control room sends a strong message about your company values, and emphasizes a healthy concern for structure, functionality, and efficiency.

Large screen display systems will help to unify your control room, provide clear and instant information, are undoubtedly a worthy investment for control rooms in every application. Additionally, their high performance and impressive appeal will add tangible and intangible value to your overall company.

Please bring your seat in an upright position!

■ Everybody likes to spend time sitting. We like to do things sitting down, because it appears so comfortable to us. But this impression is delusive, because for the human body, especially for our spine, sitting is hard work. The spine is required much harder when we sit, rather than walking or standing up, because this will keep her in her natural curved double-S-shape. To prevent a pain in the back, it is necessary to have your spine in a shape as close to its physiology as possible when sitting down. This position is possible when you bent your pelvis to

the front a little bit and automatically straight up your chest at the same time and stretch the spine. Modern office chairs support this position. There are a few more rules for a healthy back and the "right sitting":

RULE NO.1

Adjust the height of your office chair and the table at your workplace in a height that lets your arms and legs automatically lay or stand in a right angle. This is not the angle our bodies naturally have, but when sitting down, it is the position as natural as possible. If the angles between upper arm and arm bed, as well as between thigh and lower leg less than 90° it may cause a disruption of your blood flow. Your feet should be standing on the floor completely and your arms lying on the table in front of your keyboard.

RULE NO.2

If possible, use the entire seat. At least 60% of your thighs need to be supported by the seat. Use the adjustment options of your chair in order to sit right. The same thing counts for the backrest, because it can only do its job if you entrust it with your full back. Pay attention to the shape of the backrest and have the little bump in it fit your

body shape, so it supports your lumbar spine area perfectly.

RULE NO.3

Make sure that you sit up straight. When you are sitting down, pay attention to keeping your back straight from the beginning. When your pelvis bents back (this can not be avoided at all) it needs to be supported by your backrest. If you have your spine evenly weight and all muscles are used, a permanent damage to your spine and a herniated disk can be avoided. This position takes all the pressure away from your chest and stomach and naturally supports your breathing and digestion. Take special care of your pelvis and have it bent to the front, it will keep your back straight automatically.

RULE NO.4

Even when sitting, stay active and energetic and avoid a stiff and static position. Change regularly between leaning a little bit back and forward, using you own body's natural mechanic, because our spine lives from movement. Also try to shift your weight from one side to the other from time to time. If you like, sliding around on the seat or moving your pelvis in circular motions is good. Even the smallest movement is good for your spinal discs.

RULE NO.5

Use any sitting support there is. Put your arms on the armrests. This will keep tension from your shoulders and back and prevent your muscles from hardening. Also very relieving for your shoulder and neck area is the simple putting down of your wrists in front of the keyboard. You only need to make a little space on your desk. Simply keep in mind that everything that you do not lay down has to be held up by your body's muscles all the time.

If you now think of people who spend their workday sitting, it is easy to understand that sticking to these rules is probably not the whole deal. It is very important to have a suitable, professional seat.

People who have a lot of responsibility, working in a control or surveillance centre, must stay in perfect shape physically and mentally in order to be fit for this demanding job. Therefore, they make demands when it





We make your working environment more comfortable: professional control room equipment by RECARO and eyevis.

comes to their office chairs and tables. The chairs in a control room must be applicable for 24 hour usage, need to be shaped ergonomically and adjustable in various ways in order to fit all personal requirements. An average office chair is suited for the regular

office work, but certainly do not fit the special requirements of a 24/7 workplace. The chair in a control or surveillance room is used 24 hours a day, 7 days a week, for 365 days every year. This is 5 times more burden than that of a regular office chair.

In addition to that, there are other factors that do not count for a regular workplace. For example that normally, everyone has his or her own table and chair, which is adjusted once for all time. But in a control room, different people work their shifts following one another, sitting in the same chair, at the same table. So the chair must be readjusted all the time. Everybody has his or her own preferences and body shape. And in a control room, special positions, such as an almost recumbency, occur when working a night shift.

This leads to the inalienable demands a chair in a control room must have: they must be durable and built of high class, strong material; special mechanics and gas spring for high weight and constant dynamical usage. An extra large stand to keep it from falling etc. All these extra features make the excellent 24/7 control room chair, which has the German TÜV certificate and is built after the British Standard.

Especially important for a chair used in such an environment is excellent service from the producer. In an ideal case, the chair is built in a modular construction system, so that some parts of the chair, the typically mechanical party, can be replaced easily. In the best case by everyone and instantly, without the requirement of a mechanic coming in. Because this can last a while, and in a 24/7 environment, this might be a very, very long time.

The same thing accounts for the tables in a control room. These need to be supportive and ergonomically built and adjustable. In the best case, they make allow working standing up and sitting down. Those tables that have individual monitors need a special system installed, which carry the display and still allows the table to be adjustable for height.



eyevis is already participating in the Olympic Winter Games 2014

■ A long time before the slopes are being groomed and the international camera crews and reporters arrive, the Russian city Sochi has started their preparations for the 2014 Winter Olympics.

The Russian city's the administration invested in not only the expansion of the sports facilities, but also the infrastructure.

To accommodate the expected crowds, the Russian government and private investors allocated about two-thirds of the \$12 billion budget for infrastructure development. In order to prepare for the outdoor portion of the competitions, a ski resort in the town of Krasnaya Polana was developed years ago; the indoor events will be held in Sochi.

Tunneling

Part of the transportation infrastructure included constructing a massive tunnel that connects Sochi with the mountainous region of Krasnaya Polyana. The tunnel is

called Baranovsky, and with a width of 10.8 meters, a height of 5.2 meters, and a length of more than 4.2 kilometers, it is currently the third largest tunnel in Russia. In 2008 alone, Baranovsky cost 160 million Euros.

Landslides and unique soil conditions hindered construction, resulting in an average progress of just 100 meters per month in 2009. However, 10 years after it began, the tunnel was successfully completed, allowing Russian Prime Minister Vladimir Putin to officially open the tunnel on December 29th, 2009.

Traffic Safety

In addition to the construction, road safety was also an important investment – over 300 CCTV cameras are used for tunnel monitoring. Of these, only 255 cameras are installed in the tunnel itself, and the rest

deliver information from the surrounding environment.

The feeds from all of these signals flow into a brand new, ultra-modern traffic control center where they are displayed on a large screen alongside numerous computer signals via a split controller. In order to do this, the authorities opted for a large screen visual solution system from eyevis. 36 of eyevis' 46-inch LCDs are installed in an ultra-thin 12 x 3 arrangement.

The following eyevis products have been installed at the tunnel control center in Sochi, Russia:

- 40 x EYE-LCD-4600-SN (46" super narrow bezel LCD with WXGA resolution)
- 2 x NPX-3820XE-V160-D12-G2.0 (High-end Graphics Controller)





-) **Manarat Al Saadiyat**, Abu Dhabi, UAE
-) **Ministry of Interior France** - Cogic Paris, France (COGIC - Centre Opérationnel de Gestion Interministérielle des Crises)
-) **Indian Oil Corporation Ltd. (IOCL)**, Panipat, India
-) **Reserve Bank of India**, New Delhi, India
-) **Indeval Mexico**, Mexico
-) **T-Systems Data center Toulouse**, France
-) **Eaux de Paris**, France
-) **EDF Renewable Energies**, Lyon, France
-) **TV control room Al jeel Al jaded for Technology**, Tripoli, Libya
-) **Douglas village CCTV centre UK**
-) **DGT Malaga**, Spain
-) **Rete Ferroviaria Italiana (RFI) S.p.A.**, Italy
-) **TE Pljevlja**, Podgorica, Montenegro
-) **IBM security centre**, Milan, Italy
-) **HSBC Bank**, Mexico
-) **Globul Telecom**, Sofia, Bulgaria
-) **Bharat Oman Refineries Limited (BORL)**, India
-) **Aomori Police**, Japan
-) **TE Pljevlja**, Podgorica, Montenegro
-) **Danish Defence**, Denmark
-) **PRE**, Prag, Czech Republic
-) **Iran - Rahdari**, Bojnoord, Iran
-) **MAN Forum Munich**, Germany
-) **CDSMG (Centre De Surveillance Multi Gare) de la RATP**, Paris, France

Horizon Satellite

Horizon Satellite is a major provider of a wide range of satellite solutions in the Middle East, Asia and Africa. HSS offers end-to-end communication solutions for corporate networks and access to tier-one Internet Backbones to the region's largest companies and Internet Service Providers. With access to a fleet of



satellites and a global network of earth stations, HSS has the capability of transmitting to and from virtually any location in the Middle East, Asia and Africa. Strategically located in the United Arab Emirates HS ensures uninterrupted transmission 24 hours a day through its state-of-the-art Network Operations Centre and teleports in Europe.

Eyevis Installations:

-) 3x EC-67-LHD-CP
-) 1x NPX-3804-G2.3
-) 1x eyecon V4



NCEMA, Abu Dhabi, UAE

The NCEMA (National Emergency and Crisis Management Authority) falls under the authority of the National Security Council (NSC). This is the leading national organization responsible for managing and coordinating all efforts related to crisis and emergency. It is the federal organization responsible for developing national policies and procedures for training and auditing of all crisis and emergency management related activities on a national level. The NCEMA's mission is to coordinate all national efforts to save lives, preserve national properties and assets by hindering the effect of emergencies and crisis, and coordinate the national recovery efforts.

Eyevis Installations:

-) 24x EC-67-LHD-CP
-) NPX-4824-D32-G1.0
-) 1x eyecon V4



Saudi Arabia, Qurayyah Power Plant (Saudi Electric Company)

Eyevis Installations:

-) 15x EYE-LCD-6500-HD
-) 1x NPX-3816
-) 1x eyecon V4

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Authors of this issue:

Axel Renz, Andrew Shannon, Max Winck, Kai Schönberg, Andreas Kreim, Daniel Kugel

Layout, Text,

Composition and Translation

Ben Buchsteiner, Jeska Wahlers

BEN BUCHSTEINER

BÜRO FÜR WERBUNG UND MARKETING
Mercedesstraße 13 • 71139 Ehningen
www.benbuchsteiner.de



Customer event eyevis

In the upcoming months we will be represented at the following exhibitions:

-) **Intersec**, Dubai International Convention and Exhibition Center, UAE, January 16 - 18, 2011
-) **Hamburg Open**, Studio Hamburg GmbH, Germany, January 20, 2011
-) **ISE Europe**, Amsterdam RAI, the Netherlands, February 1 - 3, 2011
-) **Hannover Messe**, Messegelände Hannover, Germany, April 4 - 8, 2011
-) **ITEC, Koelnmesse**, Cologne, Germany, May 10 - 12, 2011
-) **IFSEC**, NEC Birmingham, England, May 16 - 19, 2011



Visit us at the trade fair and learn more about our range of products. Our employees will provide information to you about the advantages of our products. You can also have a look at our samples and convince yourself of the image quality and illustration facilities.

If you want to make an appointment for an individual and profound consulting, please contact us. Just send us your desired date to marketing@eyevis.de or call us at **+49 (0) 7121 43303-0**.

For further information about our products visit our webpage www.eyevis.com, where you can download the latest brochures of our products for free.



eyevis GmbH
Hundschleestraße 23
72766 Reutlingen
Deutschland

Tel.: +49 (0) 7121 43303-0
Fax: +49 (0) 7121 43303-22

Web: www.eyevis.de
E-Mail: info@eyevis.de



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