

NEWS
IN BRIEF**Jünger finds Middle**

Dynamics processing specialist Jünger Audio has made a number of sales in the Middle East, indicating that its Level Magic technology for controlling the level and loudness of broadcast audio is providing broadcasters with a viable solution to an increasingly irritating problem. Among those investing are Al-Mehwar TV, Dream TV, The Rotana Group, Aamal TV, Al-Saeeda TV, the ERTU and OTV in Egypt; Showtime in the UAE; The Islamic Republic of Iran Broadcasting (IRIB) Radio in Iran; Al Jazeera TV Group in Qatar; Al Watan in Kuwait and Jordan Media City. Tamer Berry, chief engineer at Al-Saeeda TV NileSat, said, "The main problem we were addressing was balancing out the audio level of the transmitted material. The fact that the Jünger Audio b46 units we chose incorporate an audio processor helped us solve this issue in a very effective way." www.juenger-audio.com

Must for football

Orad has announced new installations of its TrackVision football enhancement system to Italy's RAI TV and Argentina's Torneos and Competencias. TrackVision, Orad's patented sports graphics enhancement tool, uses image analysis tracking technology to superimpose tied to the field virtual graphics. Offside lines, 9-meter distance indicators, distance to goal and speed of ball measurements, as well as team logos and game scores remain tied to their exact position regardless of camera motion. Infobyte, for instance, will rely on TrackVision for RAI TV's 2009-2010 Italian and international football events. As TrackVision consists of only one rack mount 3U unit and requires only one operator, it requires minimal space in the truck and is very mobile. www.orad.tv

TVBEurope correspondent **Reinhard E Wagner** reports on the news from Poland

24 hours at Telewizja Polsat

Back in 1992 Zygmunt Solorz-Zak (one of Poland's richest people) founded and launched the first Polish free-to-air (FTA) commercial satellite TV channel, Polsat. He was and still is the sole owner of the station which today broadcasts a total of ten channels (FTA and PayTV) via terrestrial as well as through satellite transmission after obtaining a national commercial television license in 1993. Since then, Polsat (part of the Polsat Group) is ranked number two in 2008 of the nation's TV stations alongside TVP1 (#1), state broadcaster 2 (#4) and TVN, another commercial station. Both commercial broadcasters have 18% public viewer acceptance in the 16-49 group.

Although analogue television is still very common in Poland, movements into the digital satellite distribution market have started already. Besides the free-to-air broadcast, Polsat operates and provides DTH (digital to the home) by Cyfrowy Polsat, the largest provider of digital multichannel television in Poland, which represents the strong arm of the group with 2.7 million subscribers. Competitors such as Cyfra plus (Canal+) and TVN have 1.3 million and 500,000 subs, the service is distributed over the Hotbird satellite and includes a mix of free-

to-air and encrypted channels requiring a subscription.

In 2006 Solorz-Zak brought up the idea of a 24-hour news channel operation. "Mr Solorz-Zak, the owner, had the idea and initiated the project, and we had to specify all requirements and estimate the total costs. These figures are then approved and confirmed by the board of directors. The supervisory board, which is chaired by the owner himself, has the final say," explains Polsat Director of Technology Adam Brodzia.

Planning for Polsat

A first initial draft, which listed at least 20 points, was generated in May 2007. This draft described the requirements, workflows and a general overview of equipment settings after intensive talks with staff from all involved departments ie, editorial, technical and operation.

The intention was to refurbish the main TV channel's existing *Wydarzenia* news show and establish a new 24-hour news channel operation within the Polsat Group. "A sophisticated job", comments Brodzia, "because the situation in Poland is different than in other parts of Europe. Here we do not have highly experienced system houses or system integrators for newsrooms. You have to find the right person or company to fulfill your requirements."



Adam Brodzia: "We visited several broadcasters, such as BSKyB, ARD-Aktuell and France 24, before we chose our new system"

After two months the draft became a document with an estimated amount for workstations, clients, storage capacity and features. This document was basically the principal blueprint paper for the refurbishment and installation. Because of the Polsat building structure (it was and is an office-type and not a TV station), there was no proper way of cable path pre-design. To avoid damage at specific structure points or to use existing or adapted cable paths, an extra length of cabling was added. It was obvious from the very beginning of the first drawing that there was a need for an IT-based high bandwidth 1/10Gig Ethernet fibre infrastructure for floor interconnect.

"We had two offers which we investigated and evaluated in hands-on setups," says Polsat Computer System Engineer Benjamin Sperczynski. "Avid and Quantel systems had been our first choices — a third offer came in later, but could not be evaluated in time", Sperczynski adds. From a functional point of view Avid and Quantel offered the same level of functionality (according to the Polsat requirements). But at that time, the Avid system was a complete solution from one vendor while the Quantel solution was a

mix — a kind of hybrid — to get the same level of functionality. For example: Avid runs with Interplay as database engine, Quantel has one of the first releases of their MAM system. And, Ingest with Avid is covered by Capture Manager, with Quantel another company had to be involved — a risk in case of failure of one of the components.

Avid had another benefit: back in 1996 Polsat installed the first networked editing and later in 2004 Avid iNews/Mediabrowse and Thomson GV mixed platform for news production, which was still in operational use. Editors and operators were familiar with the system and trained well on it too: well-known operational practices and iNews was thoroughly accepted by journalist and operators. This meant that less training and ease of use have been reasons for the final decision to choose a new Avid installation.

"Training costs have been a big concern as well as things like finding freelance operators for a Quantel system in Poland," says Brodzia. "And don't forget, Avid does have a local distributor and integrator, ADTV, which was and still is of reasonable help to us," comments Sperczynski.

The legacy system had 20 journalist clients and seven craft editing stations and was connected to two Profiles for layout. This system was bought as a used news operation system and covered all requirements within the old installation. All of this had to be moved physically back and forth between the old facilities and the intermediate location — and back to the news show gallery.

But in regard to software, network connections and further requirements for a digital networked news environment, many options had to be taken into consideration. A basic requirement was that this integration should be smooth without any interruption to the concurrently running news operation. The decision to invest in an Avid solution was based on the local integrator, which could handle a tight time frame.

In October 2007 a main contractor agreement was reached with ADTV of Warsaw, and Avid (engineering support from Germany) was signed for the delivery of an integrated solution for news production. Only one month later, in November 2007, the factory acceptance tests of the Avid ISIS system took place in Ireland. This was possible because Avid had set up the system (for performance and collaboration test) in advance of the signing of the agreement. The very short time schedule for



Studio control: Cabling started early March 2008 along with the installation of racks, air-conditioning and furniture

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the on-air date (12 January 2008) was a benefit for ADTV and Avid, because they were the only contractors who could fulfill this specific task.

The first phase

Phase 1 of the 24-hour news project covered the installation of a 'nest' for the new 24-hour channel which should be used as an intermediate base for *Wydarzenia* until the old location was refurbished and ready for broadcasting again. That involved a new HD-capable router (Thomson Grass Valley Trinx 512 x 512) as a replacement for the old SD matrix and the implementation of legacy tools and existing hardware. To make it as easy as possible — and because of the fact that this system could be built from scratch — all signals were laid out identically on both matrices. There was no confusion where to find feeds or send signals to, which was very important during the migration phase, because the system was in 'uninterruptable operation' mode.

The new newsroom (and high bandwidth IT infrastructure) was set up while an ISIS system with 1200 hrs capacity of DV25 material and an Interplay solution for data management was installed. The decision to use the DV25 format was made after a long discussion involving period and budget concerns. This ISIS system was already planned and configured for the new 24-hour operation although at that stage planned for an intermediate operation with the news show on the main channel.

As soon as the system was up and running, a 10-seat section was opened in a conference room for training purposes and ingest of material. Here Polsat stayed with existing VTRs and studio recorders.

"Although the operators had been familiar with the Avid and iNews system, they needed training and experience with the new system. Material could be edited directly on the NAS system and needed no longer to be transferred onto local HDD's. It was the most difficult process of the new system: you had to tell journalists how to work," comments Brodziak. In January 2008 the editorial office moved to the 'new' newsroom on the ISIS system to make room for phase 2 of the refurbishment and installation plans.

The second phase

Phase 2 was even more challenging. In a five month period the old newsroom had to be rebuilt, power lines upgraded (the NAS hardware has a total of 14kW consumption), the IT infrastructure enhanced and prepared for 10GigE, interfloor connections needed to be integrated, PCs ordered and set up, intercom equipment and connections modernised, etc. Cabling started in early March 2008 along with the installation of racks, air-conditioning and furniture. A total of 45km of UTP-cat6 cable and 20km of audio and video cable have been brought in to connect newsroom

and other interfloor installations, gallery, master control, the studio level on first floor and ingest area on the third floor.

The final setup provided 21 NewsCutter including eight craft editors (one box and seven in open space) plus 35 Assist stations for the *Wydarzenia* news show. All craft editing stations are equipped with voice-over equipment and special

noise cancelling protection. Mobile content is prepared, scheduled and distributed via five NewsCutter workstations and a dedicated workstation with NewsCutter is used for archiving purposes.

For Polsat News there are five craft editing NewsCutter workstations, 30 NewsCutter running on

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Ingest area: There is a special group of media managers who are responsible for selecting material for deletion or archiving



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National test for Canon Primes

Field production

An intensive six-day film and HD lighting course at the National Film and Television School in the UK was the perfect place to test drive the new HD-EC prime lenses from Canon. User report by **Guy Routledge**, cinematographer and camera operator

The week began with lighting a variety of scenarios to be shot on 16mm and HD on the main soundstage at the Film School; cloudy, sunny and night-time interiors shot on 16mm were compared with cloudy, sunny and night-time setups shot against green screen on the Sony F900 and the Canon Primes. The lenses are not currently available to rent from any company in the UK and the whole set of six (5mm, 9mm, 14mm, 24mm, 35mm and 55mm) were kindly lent to us by Canon to test.

After working on a range of green screen setups, the participants moved to a small set, where the brief was to work with 'hard to control' conditions — hard sun-

light, bright walls and night-time interiors with no specific source other than 'blue ambience'. While these were very interesting and challenging setups from a lighting point of view, they were also perfect for quickly getting a sense of how the Canon lenses reacted under a range of normal and more extreme circumstances.

The image quality was excellent, very crisp; all the detail of a high definition but with a warmth to the image like shooting with film. The primes performed well in both high and low contrast scenarios. They kept a constant contrast ratio throughout the exposure range and were pin-sharp from the centre to the outer edges of the image, even on the wide 5mm.

While lighting was the main focus of the course and we didn't have time to shoot too many quantitative tests on the long lenses, the tests we did manage to carry out revealed that the depth of field was very narrow, even shooting around T2.8 to T4 and, since the lenses are very fast (the 5mm at T1.7 and all others at T1.5), getting a narrow

racks of the NAS installation. Some hard drive failures but no major breakdown. After investigation a solution was built into the installation and since then no more failures or problems have occurred," explains Sperczynski.

If something happens to the playout server itself, the Avid Adrenaline system in the studio can be used to perform playout directly from the ISIS storage. Although this procedure has been specified, there has — up to today — never been a test of it. Material is kept on the ISIS system for a maximum of five days. There is a special group of media managers



One of Canon's Prime lenses, FJ14, in action with the ACV-235 Canon Anamorphic Converter

depth of field 'film look' would be easily achievable for a range of drama productions.

When looking at the depth of field on the long lenses there was the opportunity to compare the 55mm Canon HD-EC with a 70mm Zeiss Digiprime. While it would have been ideal to have matched focal lengths for a direct comparison, it was evident from looking at the rushes that the Canon lens was

warmer and less harsh on skin imperfections than the Zeiss. Both these lenses were tested on a subject against a bright window, shot clean as well as with a 1/4 black promet. The results were interesting: the 70mm with filter compared more closely to the 55mm without the filter, due to the slightly warmer quality of the Canon lens.

The lenses have a common front diameter, which means only one mat-

ter who are responsible for selecting material for deletion or archiving. They have to be strict not to reach the physical limits of the system.

Each day these media managers have to prepare the system for the daily production — emptying and filling it up. The Interplay system is used for that purpose. Lists are created within the system and during the night shift operators execute them until the end of the list is reached. The next step will be a digital archive. Until this task is finished journalists and operators still print out material to tape.

Eight regional offices are interconnected via a dedicated 10Mbps IP network. Each regional office is equipped

with XpressPro but with no direct connection to the ISIS. The 10Mbps network is mostly used for send/receive footage via Tandberg MPEG-2 encoders/decoders. XpressPro is used for 'ready to go on-air' package preparation or for rough camera shots preparation for further use.

And on top of all of that a new TV studio for Polsat News had to be installed as well. This job was undertaken by Polish installation company JBD. It built a seven-camera studio based on HD equipment, but currently working in 16:9 SD configuration.

The whole refurbishment and upgrade to the news environment

te-box and doughnut is required — instead of carrying a selection of cases and tools just to attach the matte-box and filters. That would be a real time-saver in the field. Additionally, all the gears on the lenses are kept the same distance from the lens mount, so there is no need to move accessories such as follow focus when changing to a different focal length. The only slight surprise we encountered was that the focus marks on the set we had were metric, as opposed to feet and inches as most cameramen and assistants would be used to.

That, and the fact that the iris ring is in front of the focus ring, were the only two fractionally negative points to report about the HD-ECs. However, we have since discovered that Canon do in fact supply either feet or metric marks on the focus depending on customer choice.

One major positive point to mention is that we had only one instance where the back focus had to be checked and adjusted in the whole week. Having worked on HD with digital lenses a number of times, this was a very pleasant surprise as often small changes in heat or moisture conditions can affect the back focus. As a result this made the lenses even quicker and easier to work with.

www.guyroutledge.co.uk

24 hours at Telewizja Polsat

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journalist workstations and 28 Assist seats. Central ingest is equipped with three Assist stations that handle 15 concurrent incoming feeds.

Redundancy is provided by additional 10GigE switches and fibre connections, but the ISIS NAS solution does not have one. "During the first operational phase of the ISIS system, we did have vibration problems within the



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