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Visiting IBC has almost become an annual pilgrimage for the BroadcastPro team and is a time not just for bonding with the industry but between ourselves as well. This year was a proud moment for the team as IBC had chosen to join its panel of judges for its Innovation Awards. For a magazine that has been around for only three years, this was indeed a huge honour and is testament to the untiring efforts we have made as a team towards developing BroadcastPro ME as a leading publication worthy of respect in the MENA market.

Perhaps the greatest honour as a judge was to be privy to some of the projects that are being undertaken across the world by various broadcasters as well as public service companies. It was interesting to note that while some of these broadcasters innovated within their companies to improve their work or provide a new service to their customers, there were others who regularly innovated as part of their investigative journalism and to bring culprits to book. The varied ways in which people used broadcast technologies and mixed them with creative ideas from other industries to achieve a higher goal was a serious eye opener and a huge privilege.

My congratulations to each of the IBC 2013 award winners. Speaking about awards, the Broadcast team at CPI is now working in full gear to ensure another successful edition of our annual ASBU BroadcastPro Summit and Awards. This event has gained a reputation over the last two years for bringing together some of the finest talent in the region to share their knowledge while also offering a platform to celebrate some of the best innovations and projects, as well as providing networking opportunities. I hope you will support this effort by registering to attend at www.broadcastprome.com/summitandawards2013.

Entrance has been deliberately kept free so that information and knowledge can be easily shared. We look forward to seeing you on November 12 at The Address Marina Dubai.

Vijaya Cherian, Group Editor, Broadcast Division

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* The HXR-IFRS interface unit, the AXS-R5 RAW recorder and the battery are shown on the right of the photo. These are options for 4K recording.
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Dubai-based broadcaster MBC Group recently installed Molden Media’s 103” touch screens at its Cairo facility with integrated M2Touch and M2Touch gateway software. The Cairo facility was integrated by systems integrator Media Group International.

MBC’s Head of Graphics Fadi Radi explained that the M2Touch platform was already fairly popular in the network owing to their successful installation at Al Arabiya.

“We have had an M2Touch system with two 103” screens at our sister station, Al Arabiya in Dubai, for nearly a year, and it has completely changed our workflow,” said Radi.

“Before we implemented the M2Touch systems, presenters were displayed with bulky lower thirds and little floating graphics over their shoulder. Now presenters can control their graphics and other content directly via the touch screen, which greatly enhances the flow of the presentation.”

The touch screens are part of the presenters’ daily news programming. The M2Touch Gateway translates the presenters’ touch commands into MBC’s Vizrt graphics systems, where M2Touch plug-ins are employed to create eye-catching interactive graphics. Scenes are created and updated in real time, without advance scripting or programming. Presenters in Cairo will also use Molden’s M2Pad to interface between and iPad and the touch screen.

“Particularly with the recent events in Cairo, the flexibility of the M2Touch system enables us to perform frequent updates to the maps and keep our viewers informed about what’s going on the ground. The M2Touch technology powers our entire multi-touch workflow, from creation to interaction. It has been immensely successful in Dubai, and now we can employ this same streamlined workflow in Cairo.”

Molden Media’s CEO and Founder, Thomas Molden added: “Implementing a multi-touch graphics workflow like M2Touch is a complex undertaking, but MBC has embraced the technology and created some truly impressive graphics presentations with it. We are delighted that the broadcaster has once again chosen M2Touch for another of their flagship facilities.”

MGI installs VidiGo's visual radio solution at Clouds FM

Media Systems Integrator Media Group International (MGI) has assisted Tanzania’s Clouds FM radio station to give its audience a totally new, interactive experience by installing VidiGo Visual Radio software. The new software will go live on air at Clouds FM within the next few weeks.

The Clouds FM project is the first major radio installation MGI and VidiGo have completed in Africa since meeting at CABSAT 2012 and subsequently forging a partnership. The two companies are now working together to give MGI’s television and radio customers much greater access to VidiGo’s range of broadcast software products.

Left to right: Tyrone Donnelly, Jim White and Jacqulyn Hamilton.

MGI has consolidated a period of rapid expansion by announcing three new staff appointments. The new recruits are all based at MGI’s headquarters in Doha.

Jim White has joined MGI as Solutions Architect while Tyrone Donnelly has been appointed Broadcast Solutions Architect and Jacqulyn Hamilton joins as Head of Global Project Management.
MEGAHERTZ BUILDS 3G-CAPABLE TRUCK FOR OMAN TV

Megahertz Broadcast Systems (MHz), in association with its local partner Mustafa Sultan, has announced that it has been awarded a contract for the build of a new outside broadcast unit for Oman TV. The UK-based independent systems integrator is now in the process of building the expanding articulated vehicle, which will be capable of handling 3Gb/s signals for 1080/50p production. It is also fitted with high performance air conditioning to ensure staff comfort in the high temperatures experienced in Oman in mid-summer.

The 13m trailer has a single expanding side and will host 12 Sony cameras, two providing super slow-motion, plus an extra camera on a Links wireless system with remote control. The cameras all use fibre connectivity, and the order includes a range of Canon outside broadcast lenses (up to x95), Sachtler supports and Egripment sports dollars and tracks.

The production area has a Sony MVS-8000 production switcher and two six-channel EVS XT[3] servers. Comprehensive graphics capability is provided by Vizrt, including Viz Arena graphics linked to a Vinten precision tracking head. The audio area features a Lawo mixer. Sony OLED monitors are fed by Harris Broadcast multiviewers, and Harris Broadcast is also providing the router, infrastructure and measurement equipment. SPSGs are by Trilogy. The vehicle is also equipped with an Advent NewSwift 1.2m Ku-band motorised and fully automatic satellite antenna.

Oman TV and Sony announce completion of HDTV project

A high-profile delegation from the Public Authority for Radio and TV in Oman met with the Sony Professional Solutions MEA team as well as senior executives from Sony Japan at IBC for a private briefing in which both parties also announced the successful conclusion of the massive USD 69 million HDTV project in the Sultanate.

H.E. Dr. Abdulla Al Harrasi, Chairman of the Public Authority for Radio and TV in Oman, praised the efforts of the systems integrator adding that significant work was required internally to transform the Omani workforce to the new tapeless workflow. Rob Sherman, MD of Sony Professional Solutions MEA, added that the SI would extend all support required for the Omani team to continue with its total migration to HD.

Qatar TV automates planning workflows with Harris Broadcast

Qatar TV (QTV) will automate its planning and scheduling workflows with a new integrated solution from Harris Broadcast. The implementation, part of a large-scale modernisation of the broadcaster’s facilities in Doha, will replace manual systems to schedule the three current channels, with capacity for expansion.

Currently, staff charged with planning and scheduling the QTV channels and preparing final playlists use manual methods backed up by several spreadsheets. As part of a move to a completely integrated and seamless workflow, QTV sought to implement a more sophisticated system that could replace its various manual systems with one fully integrated solution, sharing data across its various departments, which could integrate with other parts of the technology infrastructure.

Harris Broadcast media software provides specialist application modules serving the various parts of the organisation while managing the data within a single database. The system manages programme acquisition and rights, along with all content and media – including management of physical libraries. All scheduling functions are fully integrated, across programme planning, sales traffic and presentation scheduling. Commercial processes are supported by a dedicated airtime sales module. Complex logistic workflows can be optimised using fully integrated workflow and task management tools. The product also offers proven interfaces to other broadcast software systems through the industry-standard BXML protocol.

New MD for Avid Europe and Mid East

Avid has appointed Dr. Christopher Brennan as Managing Director for Central and Eastern Europe, Middle East and Turkey. Brennan will be responsible for continuing the company’s ongoing momentum in the region, and for building on Avid’s leading position as the provider of open, flexible and comprehensive media platform.

RT Software offers analysis to Saudi TV ‘King Cup’

RT Software worked with Trans Gulf Media to supply two graphics systems for the studio analysis of Saudi TV’s King Cup. This included a 10G-Sports Pro system to prepare telestrated analysis clips and also provide a broadcast quality custom touchscreen application. The clips were prepared in advance of the pre-game shows, and during the live games for use at half time and full time shows. During the live shows, this system was used in conjunction with a 46” touchscreen for the presenter to play out the clips and add further analysis such as lines and arrows, and seamlessly integrated with a custom touchscreen application showing the route to the finals and making team comparisons.

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GULFSAT ACQUIRES BROADCAST LICENCE IN KUWAIT; ANNOUNCES MORE SATELLITE CAPACITY

Kuwait-based satellite solutions provider GulfSat was recently awarded the coveted broadcast licence by the Ministry of Information in Kuwait for its TV uplink business. The company has been operating in the region for 18 years with a VSAT license. The broadcast licence will enable it to become a major uplink provider for TV as well as the VSAT business, which places it in a unique position in the region.

According to Mohammed Alhaj, Chairman of GulfSat, the broadcast licence is not easily acquired. “This licence will give us the chance to strengthen our presence in Kuwait and open the door for new business opportunities abroad. It makes us the only official satellite broadcaster in the region.”

In conjunction with this, GulfSat also announced at IBC that new satellite capacity will be available on a new transponder that is located at GSAT 7.8 degrees E8WC (Eutelsat 8 West C). Satellite capacity will also become available on the GSAT 7 degrees West satellite from October 1, 2013.

“At the moment there isn’t much capacity available on this orbit. However, the GSAT 7.8 is 2 or 3 degrees from Nilesat, therefore, offering similar exposure. It serves as a gap filler until it is replaced within a year by another transponder,” explained Alhaj.

The second AB7 GSAT 7 degrees west satellite covers another orbital location, which will also have available capacity starting from October 1, 2013. This satellite will be uplinked from Europe.

“All satellites that we operate are manufactured by Eutelsat with a 15-year contract to reserve capacity in specific regions on their satellite. GulfSat has a ground infrastructure that connects nine international nodes.”

Dubai, New York, Egypt, Singapore, Bahrain, Kuwait, UK, and more recently, Jordan and Cyprus serve as nodes for GulfSat.

“These nodes are connected over international MPLS circuits to carry our clients’ content from point A to point B. Our playout centre is in the UK, which is our hub. We operate an IP platform that is fully automated, where clients can upload and programme their playout remotely,” he explained.

He also added that GulfSat is the only company that broadcasts from the US and covers the MENA region.

“Companies that uplink from the Middle East are subject to regulations. The AB2 transponder uplinks from the US and is free of satellite interferences.”

MediaCast hosts SSL workshop in Dubai

Dubai-based distributor MediaCast hosted a Solid State Logic specialist demo event on September 25, 2013 in the newly built Tone Town Studios in Al Quoz. The one-day event featured two workshops hosted by Solid State Logic’s Damien Egan, EMEA Distribution Manager at International Headquarters.

Egan demonstrated Sigma, SSL’s new remote controlled analogue summing engine during the event. He also demonstrated SSL’s range of workstation products including Nucleus – a controller for multiple workstations;

X-Rack – a modular analogue system that allows for customisation and X-Logic I/O.

“The workshop began with a segment about the history of SSL, insights into the design philosophy of the company and went on to the benefits and features of the products,” explained Egan.

“Sigma, being a compact console, is the perfect fit for smaller recording studios, home studios and individuals. It shows significant reduction in size, cost and power consumption in comparison to larger consoles. It is a cost-effective solution and works on all major music software.”

The attendees included a mix of music professionals and students from various media institutes including SAE Institute, DJs, producers, freelance sound recordists and sound engineers.

MediaCast bags BMD Award at IBC

MediaCast received the “Outstanding Achievement” Award by Blackmagic Design (BMD) for excellence in distribution at IBC 2013. Peyman Dadpanah, Business Director at MediaCast accepted the award from Stuart Ashton, Managing Director of Blackmagic Design EMEA.
Al Jazeera in exclusive MENA deal for UEFA League

Al Jazeera Sport has secured the Middle East and North Africa (MENA) rights for the Union of European Football Associations (UEFA) Champions League and UEFA Europa League for 2015-2018. The broadcaster has bought exclusive rights for MENA across all media platforms, UEFA said, without disclosing the value of the deal.

Al Jazeera – already the regional home of live English Premier League until summer 2016 – will also screen extensive highlights and delayed programming of the European club competitions, with services provided in Arabic, English and French, the football association said.

Sky News Arabia partners with Voice of Lebanon

UAE-based TV broadcaster Sky News Arabia has established a partnership with Voice of Lebanon radio station to share expertise and reports. Sam Mnassa, Head of the Board of Directors at Voice of Lebanon commented that the partnership will enable the entities to provide their audiences with value-added news content.

“The radio station will benefit from six additional news briefs and a broader coverage of regional and international issues. It will also benefit from direct news coverage from the extensive network of Sky News reporters,” explained Mnassa.

Voice of Lebanon will also reach an international audience through the recent cooperation agreement.

Intigral announces incubator programme

Intigral has announced the launch of AFKAR.me, the region’s first full spectrum digital sector start-up and entrepreneur incubator. Intigral claims that AFKAR.me is part of its commitment to grow the region’s digital ecosystem, and will source, incubate and develop innovative business ideas from start-ups and entrepreneurs.

Open to applications both from the region and globally, the initiative offers anyone with a great idea the opportunity to receive support from Intigral’s expertise and access to the Middle East market.

Support will be provided on various levels such as a seed fund of up to USD 20,000 per team, dedicated Intigral management support as well as external mentor support to guide the team through every step of the process, free office space at Intigral’s Dubai and Riyadh offices, advice and support from experts in the field, and access to the MENA market with special focus on KSA.

Dubai TV invests in Shure

UAE-based distributor Nicolas Kyvernitis Electronics Enterprises has recently supplied ten channels of the new PSM series transmitters with nineteen receivers, twenty-four channels of the new URF-R series with thirty-two transmitters, eight plug-on transmitters and thirty-five of the new MX150B lavalier microphones from Shure to local AV supplier Tek Signals who installed the system at Dubai Media Incorporation’s (DMI) News Centre facility in Dubai Media City.

ADM expands HD bouquet

Abu Dhabi Media’s Gold Special TV package has added three new HD channels to its bouquet. The premium package now includes Star World HD, Star Movies HD and the National Geographic Channel HD, bringing the total number of HD channels to 21.

Hitachi to launch in Turkey

Hitachi Kokusai Electric Inc. set up a wholly owned subsidiary in Turkey to expand its broadcast equipment business in the Middle East, in June this year.

The Istanbul-based unit handles marketing and maintenance of broadcast equipment and related network systems, with plans to expand into development and manufacturing.

The Turkish subsidiary will help the company capitalise on Turkey’s plans to switch from analogue to digital terrestrial broadcasting and help the company expand its broadcast business in the Middle East.

Qatar successfully launches first satellite

Eutelsat Communications and Qatari partner Es’hailSat have announced that their jointly-owned Eutelsat 25B/Es’hail 1 satellite has been successfully launched by an Ariane 5 rocket and is on course for geostationary orbit. Es’hail 1, Qatar’s first satellite will broadcast more than 30 high-definition television (HDTV) and 70 standard definition television (SDTV) channels, it was announced by Qatar Satellite Co (Es’hailSat). Qatar TV, Al Jazeera channel, Al Rayyan TV and Al Kass sports channel, are some of the channels that will be broadcast from the satellite. Services of the new satellite are expected to be available by December.

The companies aim to bring the satellite into service at 25.5° East at the end of October.

Ali Ahmed Al-Kuwari, CEO of Es’hailSat, said: “We are immensely proud to have witnessed here in Kourou the birth of a new star over Qatar with the successful launch of our Es’hail 1 satellite. The Es’hailSat programme plays an important strategic role as Qatar works to meet the rapidly growing communications needs in the region. With the arrival of Es’hail 1, we have completed the first step in our mission to become a centre of excellence in the region and develop a sustainable national satellite industry. Qatar’s first satellite will provide our strategic stakeholders and commercial customers with broadcasting independence, quality service and wide geographical coverage.

Paddy Roache, Director and GM, Hitachi Kokusai Electric
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OSN PLAY EXTENDS VIEWER ECOSYSTEM TO SMARTPHONES

OSN Play will now allow subscribers to watch their content on smartphones with 3G and 4G capabilities. Piksel has successfully developed and delivered a multi-platform extension of the OTT service. This continues the expansion of over-the-top television (OTT) services for OSN, which showed significant early adoption rates.

OSN Play, which delivers live streaming and VOD to subscribers in 24 countries, is presently available on most devices including, PC, Mac, iPad and Android tablets, Samsung Smart TV's and now iPhone and Android smartphones.

The platform expansion allows OSN's subscribers to watch television anywhere, anytime, unrestricted by their device or the lack of Wi-Fi.

Launched recently to subscribers, early adoption is positive, according to OSN.

ONE CONNXT delivers Ramadan programming for ART

ONE CONNXT has announced a successful delivery of more than 500 hours of content for Arab Broadcasting Television (ART) during Ramadan.

The programming originated from the MISC Media Centre in Cairo and was delivered to media centres in Amman, Jordan and Italy.

Wagdy El Shenawy, CEO of MISC Media Centre in Cairo, said, “We used ONE CONNXT as the main method to send material to broadcast centres in Italy and in Jordan from Cairo during our busiest time in Ramadan. The system performed well and we depended on it to move hundreds of hours during the holy month. With a very small investment, we managed to cover the cost and get into profits within the first few months of operating the system.”

ONE CONNXT was created by broadcasters for broadcasters. Unlike most other systems, ONE CONNXT was designed to meet or exceed broadcast standards and offers quality and reliability comparable to traditional broadcast for a much lower cost.

Saudi Arabia's largest drama production premieres on OSN

Al Sultanah, one of Saudi Arabia’s largest drama productions, premiered on OSN’s Halia HD on September 21, 2013. Featuring some of the Gulf's most famous acting talent, including Ibrahim Al Harbi, Ahmed Saleh, Amira Mohmed, and Badr Al Zidane, among others, Al Sultanah is being billed as one of the most powerful Saudi Arabian productions to date.

The series marks the first time a Saudi woman has been cast as a lead character in a primetime television show. The show tells the story of Sultanah, played by Leila Salman, and her life as a woman beyond the norms, executing and delegating tasks that are dangerous and illegal.

Despite her power and professional obligations as a leader in the underworld, Sultanah also depicts a hidden side - her role as a mother, and a woman with feelings and emotions, and loyalty towards her family. The show was filmed in several European and Arab cities, including Paris, Italy, Dubai, and Beirut.

Bollywood film completes shooting in Dubai

Hindi film Happy New Year successfully completed shooting in Dubai last month.

Produced by Shah Rukh Khan’s Red Chillies Entertainment, Happy New Year will premiere next year at Atlantis, The Palm, where much of the filming took place, with the stars in attendance.

The film was shot extensively in Dubai at some of the busiest locations in town, including Dubai International Airport and Dubai Mall, with special assistance from Dubai Film and TV Commission (DFTC) and Dubai Department of Tourism and Commerce Marketing, DFTC partnered with Dubai Government entities to simplify the entire filmmaking process for the production team.

Jamal Al Sharif, Chairman of Dubai Film & TV Commission, commented on the support that Dubai has been able to offer: “Happy New Year is a true mark of the success that can be achieved through the collaboration of public and private entities in Dubai. In close partnership with Atlantis, The Palm, Emirates and DTCM, we’re delighted to help facilitate the latest venture from Farah Khan and Red Chillies Entertainments, and showcase Dubai as a world-class filming destination”.

Noura Al Kaabi joins top 50

France’s most prominent weekly news magazine, Le Nouvel Observateur, has named twofour54 CEO Noura Al Kaabi as one of 50 individuals who contribute to changing the world.

Describing her as ‘Queen of Media’, the news magazine cited in its findings Noura’s numerous achievements and her presence in almost all Arab Women influencer listings. Noura is the only Arab woman to appear in the ranking, and one of only two Arabs.

National Geographic to show series on Dubai International Airport

National Geographic Channel’s series Ultimate Airport Dubai premiered last month.

The series offers behind-the-scene access to Dubai International Airport.

The various scenes show what it takes to keep Dubai International Airport a safe, secure and on schedule. From the Control Tower and Customs interrogations to angry customers, cargo headaches and new construction, nothing is left unturned in the series. It covers the three massive terminals, including Terminal 3, the biggest airport terminal building by floor space.

With unprecedented access to all facets of this mega facility, the series follows some of the 60,000 staff working hard to keep everything in place with more than 344,000 flights, 57 million passengers and two million tonnes of cargo flying in and out each year, Ultimate Airport Dubai provides viewers with an all-access ticket to the various divisions of this expanding airport, which is poised to become the world’s busiest airport for international travel.
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ViewSat doubles broadcast capacity in MENA

ViewSat has announced the launch of its second MENA satellite transponder in the 7/8 degrees West orbital neighbourhood. The company also announced the installation of a 9m antenna at its UK headquarters which will be used to uplink channels to the market.

These investments have allowed ViewSat to engage with new customers hoping to expand their broadcast services into the region as well as to extend the capacity currently offered to existing MENA customers. With Middle East broadcasters accounting for one third of ViewSat’s customer base, Awaes Jaswal, CEO of ViewSat believes the region is key to the company’s overall growth.

Icflix picks up in first weeks of soft launch

Icflix, the region’s first online streaming media platform, witnessed a good response rate from over forty countries since its initial soft launch. Within two weeks, an overwhelming number of subscribers have signed up for the media streaming website, which currently has a growing library from studios of Hollywood, Bollywood and Jazzwood genres.

The UAE-based company is accessible to users all over the world. It has drawn attention to its Arabic content streaming live online since before Ramadan.

Ghielmetti appoints Argosy

Swiss manufacturer Ghielmetti has appointed Argosy as the main distributor for products from in the Middle East and South-East Asia. Argosy is already a key sales channel for the company through its head office in the UK servicing Europe and beyond.

Ghielmetti, which celebrated its centenary year in 2012, specialises in high-performance products for connecting, routing, switching and monitoring audio, video and data signals. At IBC2013 it is launching a number of new products, including a low-cost range of audio and video patch panels, small routers and rackmount audio monitoring.

Argosy is a leading supplier of infrastructure hardware to broadcasters and systems integrators in a broad range of markets. It has dedicated operations in Dubai and Kuala Lumpur, which serve the regional markets directly. It is these two Argosy-owned businesses which are now lead distributors for Ghielmetti products.

“Our business is in understanding what our engineering customers need, and making sure we have the right range of products to serve them,” said Mike Purnell, Director at Argosy. “The Ghielmetti range is proving popular with our customers, and we have great faith in the Swiss precision and reliability of their construction. We are confident that as main distributors for two booming regions, the Mid-East and South-East Asia, we can give Ghielmetti a great route to the market.”

Bahrain audio house chooses Midas

Nicolas Kyvenitis Electronics Enterprises recently supplied a Midas PRO1 digital live audio system and an RPM TB48 to Bahrain-based audio house’s Top Tune Audio Services. The firm provides rental and studio services in the Kingdom of Bahrain.

The PRO1 breaks new ground for MIDAS digital consoles, featuring an all-new, lightweight aluminum frame. The PRO1 is the first standalone, compact MIDAS digital console.

It features the Midas sound characteristics, which have their roots in the classic Midas analogue consoles. The PRO1 also benefits from the same comprehensive choice of effects and dynamics processing as the PRO6 and XL8, including the XL8 compressor styles.

NEWTEC TIES WITH ALGERIAN FIRM

Satellite communications specialist, Newtec and Télédiffusion d’ Algérie have signed a multi-million Euro contract to deploy several of Newtec’s interactive satellite terminals running on the ASBU Multimedia Exchange Network over Satellite (MENOS).

The award-winning ASBU-MENOS network is operated by the Arab States Broadcasting Union on the satellite Arabsat 5A (30.5° East). By deploying the Newtec technology, hosted on the ASBU platform, TDA will now have access to their own IP-based and fully automated secure Virtual Network (VN) for contribution and exchange of radio and TV content at low and high bit rates. Using a VN provides the same services and benefits as owning a dedicated physical network, but is provided as a “hosted service” by ASBU without TDA having to operate the complete system.

TDA will integrate Newtec’s Ku-band Radio Satellite Interactive Terminals (SIT), TV Satellite Interactive Terminals, fixed and portable Fast News Gathering (PNG) SITs and IP data SITs. Those SITs will be deployed over 48 regions across Algeria with two separate networks for radio and TV contribution, connecting five major cities and villages. This allows users to collect and access content at each site.
Blackmagic Audio Monitor gives you fantastic quality audio monitoring in a small one rack unit size! With a dual subwoofer design combined with extra wide range speakers all backed by a super powerful class A/B amplifier, Blackmagic Audio Monitor features an elegant design with big bright multi color audio meters and a built in LCD for monitoring video sources. You even get 6G-SDI input and HDMI 4K output for native 4K big screen video monitoring!

**Small Size, Big Sound!**

The Blackmagic Audio Monitor was designed using the latest advanced audio analysis technology to create a wide and smooth frequency response curve with crisp highs and powerful deep bass. You get great sounding music, extremely clear voice tracks and all the detail of effects tracks! Blackmagic Audio Monitor has the power to be heard in noisy environments!

**Precision Audio Metering**

With two big bright audio level meters on the front panel, you get full multi colored RGB LEDs under each segment so the meter scale is infinitely customizable. With lots of meter segments you can monitor a very wide dynamic range. Blackmagic Audio Monitor features an elegant and super tough front panel that’s been machined from a solid block of aluminum so it looks fantastic in your studio!

**High Quality LCD**

The built in display allows visibility of input video, volume level, input selection and video standard instantly!

**Advanced 6G-SDI and Ultra HD**

Blackmagic Audio Monitor supports SD, HD and the latest Ultra HD 4K video resolution via the high quality 6G-SDI input with output on the HDMI 4K connection to both HD and Ultra HD 4K displays and projectors. You can monitor audio from any of the 16 audio channels on the 6G-SDI input. 6G-SDI is four times faster than regular HD-SDI so allows image resolutions four times greater than HD! This means you get the most advanced future proof technology!

**More Audio and Video Connections**

Blackmagic Audio Monitor features both professional audio inputs as well as cutting edge technology video inputs including 6G-SDI input with loop output, HDMI 4K monitoring output, balanced analog XLR audio in, balanced AES/EBU audio in and consumer level HiFi audio inputs. Only Blackmagic Audio Monitor has all the inputs you need for monitoring both video and audio!

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**Advanced HDMI Monitoring**

You get the latest HDMI monitoring output that supports Ultra HD! Connect to video projectors or big screen TVs!

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Machined from solid aluminum, you get an elegant front panel design that looks great in your studio!

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  - Machined from solid aluminum, you get an elegant front panel design that looks great in your studio!
- Advanced HDMI Monitoring
  - You get the latest HDMI monitoring output that supports Ultra HD! Connect to video projectors or big screen TVs!
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  - Get the latest 6G-SDI video connections for Ultra HD with a single cable! Switches between SD, HD, 2K and Ultra HD!
- AES/EBU Digital Audio
  - Connect to professional audio equipment via the built in balanced AES/EBU digital audio input!
- Analog Audio Inputs
  - Connect to balanced analogue audio equipment such as iPods, DVD players and more!
- New!
What’s not supposed to be on TV?
I’m not talking about pornography or programming; I’m talking about the other ‘P’ word, piracy. There is ongoing debate about how big the problem is and we think we’ve come up with an answer.

When we talk about piracy, we usually mean Dish TV, the satellite platform which carries Indian programming, Indian channels and Indian advertising but, which is hugely popular in the Gulf, where we can see their signal.

Actually, those people watching Dish TV have paid for subscription cards, boxes and installations, so it could be argued, it isn’t piracy as such. Nevertheless, it takes away from the legitimate Middle East channels broadcasting on approved platforms, thereby undermining their programming and commercial activity. So, call it what you like but it has a similar effect to music piracy or counterfeit goods.

The question is how big is the Dish TV problem?

One of the issues for TV as a ratings measurement system is the huge diversity of channels in the region. Even the legitimate platforms carry around 800 channels, and the vast majority of those pick up tiny amounts of viewing.

We fully monitor ‘only’ 62 channels with another 20 on a lower level of data capture and they usually capture between 40% and 60% of viewing at any given time. In most other markets, the audience for the top 80 channels would probably capture 80% or more of the audience. In some markets, just five or six channels can capture a large majority of viewing. Not here.

Now some of that lost viewing is the other 700+ channels, each one taking a small share. But some of it is also the Dish TV viewing. In our system it all shows up as ‘Other’ viewing.

By looking at the total minutes consumed over a month we’ve tried to put a figure on how much is legitimately ‘Other’ viewing and how much is illegitimately Dish TV.

Our sample panel (see Table 1) includes homes with Dish TV – over 100 of them. Most of them have Dish TV only, which means they have no local broadcast package, although some of them have Dish TV in addition to a local cable or satellite.

For the purposes of calculation,

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For the purposes of calculation,
It brings the total down by 28.5% from 32,139 to 22,978 minutes viewed and gives us a new set of percentages. So the good news for ratings measurement is that the 82 monitored and referenced channels actually capture about 54% of the possible viewing, and we hope to increase that in the future.

But the significant figure there is 28.5% of total viewing going to Dish TV. That is the size—and I would say, it is only a conservative estimate of the problem here. It shows the proportion of viewing, which is leaking outside the UAE’s approved channels.

It’s an issue for broadcasters, advertisers and, of course, the government to think about. Why is it that a large portion of the population here is simply not being exposed to the proper channels of communication?

It is a menace that impacts not only the commercials but also the community.

we’re going to assume that all viewing of ‘Other’ channels (not in our 82 reference channels) by Dish TV households is actually Dish TV viewing.

While it is possible, a Dish TV household with satellite is viewing a non-referenced channel like Saudi TV, for example, we’re assuming it is unlikely. And if this potentially overstates Dish viewing we would argue that actually the number on the panel is probably understated in comparison to the population, because people with illegal platforms are less likely to agree to join a ratings panel, so this would counterbalance the effect.

When we look at viewing by Dish TV households, we get the following percentages of the total viewing in each category: (see Table 3).

So, of the 19,795 minutes of ‘Other’ viewing in Table 1, nearly half of it was from Dish TV households—9,161 minutes to be exact—and we can exclude those minutes from the total viewing to arrive at a new figure of total viewing for Middle East channels.

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E-Junior’s HD adventure

Children’s edutainment channel E-junior marked its 12th anniversary this year with a complete transition to High Definition (HD) coupled with new programming to reflect the high quality image broadcasts. In an exclusive interview with Vibhuti Arora, Fatiha Bensalem, Senior Channel Manager of E-junior, and Khaled Al Baloushi, Manager of Recording & Servicing at eLife, talk about the channel’s programming strategy and its transition to HD.
E-junior has been rated as the most viewed kids’ channel in the UAE since its roll-out in 2001, according to Etisalat’s TV Digital Audience Measurement System. Its recent migration to HD and the adoption of a brand new look and feel is aimed at further strengthening the channel’s position in the market.

Fatiha Bensalem, Senior Channel Manager of E-junior, has been responsible for content acquisition and selection at the channel, and has been involved in the HD upgrade from the word go. The upgrade, according to her, was necessary to keep pace with the fast changing world of broadcast technology.

“The channel’s transition to HD was necessary to live up to our commitment to provide the best in kids’ entertainment and to keep up with the shift for greater quality standards in the market. The viewers have a better viewing experience with the HD format. The process took about a year-and-a-half of intense planning and preparations from our technical team. Content wise, we had to ensure we had the licensing and the necessary quality checks to make the transition as smooth as possible,” says Bensalem.

The process began in Q3 2011 for a 2013 launch and saw the entire workflow revised to meet the demands of the HD migration. This was reflected in every part of the operation including the production, post, servicing and playout areas among others. Once the channel achieved technical readiness, preparations for choosing suitable HD content for E-junior also began.

“The transition was not just limited to the technical realm. Once we had the technical upgrades in place, the programming department took over and we worked very closely with the other teams to customise the facilities to our needs,” explains Bensalem.

“We changed our acquisition plans to work on HD. We apply stringent standards and practices when it comes to our audience to seek the right content. The transition was undertaken in a phased manner with some content going on full HD while the rest of it stayed in SD. In due course, the entire format was changed.”

E-junior’s migration to HD, however, was part of a larger transition to the new format within E-vision, the television arm of telecom operator Etisalat, says Khaled Al Baloushi, Manager of Recording & Servicing at E-vision.

This larger vision witnessed the launch of Etisalat’s new HD and 3G-capable
“The transition was not just limited to the technical realm. Once we had the technical upgrades in place, the programming department took over and we worked very closely with the other teams to customise the facilities to our needs”

Fatima Bensalem, Senior Channel Manager of E-junior

HDTV playout centre that is entirely file-based from ingest to playout, with low-res and high-res workflow, cross-function control using a media asset management system as well as state-of-the-art rights management and scheduling along with the most modern multicast playout technology. This migration was undertaken by Etisalat in conjunction with systems integrator Quest Media, which is a part of German Wellen+Noethen Group.

“The plan was to move to a full HD facility for all of Etisalat’s in-house channels. We started with E-junior followed by E-masala and Info channel, and plan to move on to the other unused playout facilities,” explains Al Baloushi.

Beyond that, in close co-operation, engineers from Etisalat and Quest Media designed and specified an entirely new workflow model to advance Etisalat’s production processes.

Presently, Etisalat distributes more than 490 television channels in 21 different languages in various genres such as sports, movies, documentaries and music through its IPTV network and video on-demand. Now, nine complete HD/3G/SD multi-format broadcast chains come with the new HDTV playout centre which, contrary to the IPTV channels, can be produced with a fully-equipped TV infrastructure.

“Etisalat has the capacity to run nine in-house HD channels from the new playout centre. The rest of the channels on the E-vision platform are pass through channels, which we get from satellites as per our agreement with different companies. We have the target, however, to offer a bouquet of 700 SD and HD channels eventually.”

With the new installation, Etisalat offers the broadcasting chain as a fully-equipped and 100% managed infrastructure to national and international TV channels as well as feed suppliers for handling their broadcast management. It allows the telco to not only offer its broadcast customers a fully-equipped HD/SD multi-distribution platform for transmitting of broadcast content, but also, when required, handling of the entire content management.

The project
A total revamp of E-vision’s transmission facility at Al Dhaid was undertaken in 2012 beginning with the replacement of the Harris digital playout system with Omneon servers and Pebble Beach System playout. The entire system was transformed to a file-based operation with the adoption of a Video Production Management System (VPMS) from Arvato Systems for media asset management (MAM).

The MAM system was a key element of this project because as a telecommunications provider, Etisalat operates in a market environment that is characterised by fast-moving product lifecycles and huge innovation leaps, which not only place huge demands on technical and operative manoeuvrability but also on corporate culture.

The answer lay in ensuring that alongside the integration of a standardised workflow, nearly all processes relevant to production would also be incorporated into a central administration system. So in addition to workflow definition, there was also the challenge of specifying the system components and processes of a central MAM, which could not only work with a production format but also on corporate culture.

Key Kit
- WhatsOn: used for acquisition, metadata and scheduling
- VPMS: Media Asset Management system that communicates with WhatsOn and PBS automation system, handles the file ingest, transfers, and transcoding. It is also used to monitor the videos for approvals and censorship and exports xml for automating the edit of the high res video on FCP. Basic edits through Harmonic Pro Carbon transcoders
- ClipJockey and Omneon video servers for ingest
- PBS automation and Omneon video servers for playout
- Vertigo for look-and-feel graphics
- Isilon for automated video archive (controlled by VPMS)
- Final Cut Pro 7 for censoring edits and promos
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also have the necessary interfaces and connectors capable of cross-process integration in all areas of the workflow, for example, ingest, transcoding, scheduling and traffic management, processing, archiving and playout.

The solution was found with German company Arvato Systems, whose MAM system makes it possible to integrate nearly all broadcast-relevant processes. With Arvato’s VPMS, Etisalat ultimately decided on a solution that seamlessly supports all production-relevant workflows in a software component and clearly-arranged GUI (graphical user interface).

“VPMS allows for browsing, metadata generation and editing, draft editing with voice-over, audio editing as well as monitoring ingests and triggering the transcoding process. Its other features assist operators from all areas of production with channel management, scheduling, running, and monitoring video ingest tasks; video ingest, standards and practices, post production, graphics or playout as well as convenient ways for interfacing, controlling video servers and video movements for video playout and archiving. Operators can either use VPMS to carry out their production work or hand over their data to media asset management via compatible connectors and exchange formats,” explains Al Baloushi.

The biggest challenge that the team faced was to revamp the system on a legacy infrastructure, whilst adhering to stringent quality checks. Some of the existing content had to run on HD, which had to adopt the version passed by E-vision’s quality control (QC) department.

The content acquired by E-vision’s channels has to adhere to XDCAM50i, the quality standard compatible with Omneon servers. Different Omneon servers were deployed across the chain including its Media Deck for ingest, Media Grid for post and Spectrum for on-air. These servers are common to all of E-vision’s channels including E-junior.

Once the content is ingested, it is converted to XDCAM HD with 50 Mbit/s format and is flown into the chain.

The channel’s HD content may be delivered on hard drives, tapes, or as files but the VPMS converts it to the house format during ingest. Most of E-junior’s content, however, is delivered digitally through FTP via Aspera or Signiant.

“The content is passed on to the technical department as email links which can be easily downloaded on their servers. This is then ingested and starts the service workflows,” says Bensalem.

“The content is viewed after ingesting it on to clipJOCKEY, which is also part of the MAM system. The approved content is available on the video server in high and low-res to conduct standard and practice (S&P) monitoring, preparation for promotions and final approvals from channel managers.

“Previously, in SD, we used to have a much larger proportion of content that was rejected due to technical issues. Since we transitioned to HD, we have faced fewer rejections on account of technical glitches, mainly because we have moved away from tapes. Tapes are more likely to undergo damage in shipment and due to repeated usage and recycling. Now, I would say 95% of our content comes in digital file format, which has proved to be a great time saver for us,” explains Bensalem.

As with most such workflows today, the high-res files remain on the video server while the low-res version is created for viewing through the VPMS interface. The S&P department then
also have the necessary interfaces and connectors capable of cross-process integration in all areas of the work flow, for example, ingest, transcoding, scheduling and traffic management, processing, archiving and playout.

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reviews the content and decides if it is S&P approved, ready for edit or rejected. E-junior presently acquires 1000 hours of content annually, which is then serviced by the channel's in-house team.

“The MAM performs QCs on each video file. When we confirm QC, the MAM system creates low-res files for viewing. They are then sent to programming and S&P,” chips in Al Baloushi.

The MAM-based quality checks are undertaken with Cerify and Baton for complete checks for compliance to formats, media regulations, and a wide-variety of content quality requirements.

“At E-junior, we have very strict guidelines to ensure that the content is not offensive to the UAE culture so the content is viewed very carefully,” E-junior’s Bensalem adds.

“We don’t comment on creative aspects but adhere to cultural considerations. Unsuitable content is either edited or rejected.”

The VPMS also comes with a package of backend modules for media management within workflow transfers such as format conversion, controlling different hardware or information sharing with external applications. The programming department creates promo requests on the VPMS system.

E-junior offers four audio channels. There is also the option to view programmes with subtitles, which is provided using DVB subtitling. Most programmes are offered in both Arabic and English. Subtitles can be switched on and off as per each viewer’s choice. The channel works with specialists to dub and create subtitles.

The broadcast infrastructure is connected to Etisalat’s video on demand (VOD) platform. Here, material ready for broadcast is available on demand for viewers as time-delayed streaming. This special function is enabled by Arvato’s VPMS in connection with What’sOn channel management and scheduling. This way, the programme planner decides, which content should be transmitted to the VOD platform by generating a list of material from What’sOn and transmitting it via XML request to VPMS. VPMS processes this request automatically, compiles the requested material, triggers a set transcoding into the desired file formats and finally transfers the material to the VOD system. This gives Etisalat a simple yet effective option for integrating broadcast material for second viewing.

Al Baloushi adds that subscription video on demand (SVOD) is also on the cards “as part of our plan to offer the latest to our customers” and a fully redundant Isilon system that can archive up to 5000 hours of tapeless automation with VPMS is part of this effort.

The Isilon solution will enable E-vision to store up to 10,000 hours of content in due course as it introduces SVOD, which will include both subscription based movies and/or programming giving subscribers unlimited access to specific programming for a regular fee. The service requires that the MAM can handle an additional 10,000 hours in the first phase. This will later be expanded to include 20,000 hours.

“We hope to add 10,000 hours within a year. Included in the subscription fee, will be charges to access the VOD library,” says Al Baloushi.

E-junior presently acquires 1000 hours of content annually, which is then serviced by the channel's in-house team.

The workflow in detail

Etisalat and systems integrator Qvest Media worked together to ensure that alongside the integration of a standardised workflow, all processes relevant to production would also be incorporated into a central administration system. So, in addition to defining the workflow, there was also the challenge to specify the system components and processes of a central MAM that can work with a production format and have the necessary interfaces and connectors capable of cross-process integration in all areas of the workflow.

Thus, seamless VPMS integration can be best illustrated in the production area of channel management and scheduling. The choice of a programme planning tool fell to What’sOn, the solution of Belgian software developer MediaGeniX. The modular architecture of this scheduling system enables programme planning that is tailored to the specific requirements of Etisalat. The What’sOn package enables programme planners to control and organise their entire programme scheduling, contracts and rights management as well as advertising and campaign planning. As the production step preceding ingest, the programme planner also decides which content should be broadcast and at what time. The What’sOn operator additionally uses the planned broadcast list to prepare a material request, which is then sent via the...
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SOAP interface in XML format to the VPMS.

**Automated ingest**

It makes no difference whether the requested material is on tapes, external hard-drives or on other mobile storage media because the ingest technology is equipped for every type of medium, such as tape, file or feed ingest. On the other hand, what all ingest variants have in common is that they can be converted to the same production format while they are in the ingest process. Etisalat was impressed with the XDCAM HD with 50 Mbit/s format, which has now been integrated as the standard format along the entire production chain. What this means for the concrete ingest process is that the programme planner first sends the material request to the VPMS media asset management system. Based on this material request, the ingest operator checks to see whether the material has been delivered in a predefined production format. If this is not the case, VPMS immediately triggers the transcoding of the material in the course of the ingest process. The Up, Down and Cross converters by Snell as well as a transcoding server by Harmonic (formerly Rhozet) convert the data to the desired in-house standard format before it is stored on a central Omneon MediaGrid production storage server with more than 900 hours of storage capacity, using the Omneon video server selected by ingest. But as a special feature, not only is the original high-res data transcoded and ingest in XDCAM HD 50 Mbit/s, a proxy file in MPEG4 with H.264 coding is automatically created, which is saved on a cluster server by Hewlett Packard (HP) with 20,000 hours of storage capacity to enable LowRes editing.

The harmonised production standard as well as the creation of high-res and proxy files gives Etisalat a highly accelerated workflow, a hugely increased production efficiency and all the production cost benefits associated with that.

**QC, low-res production and edit in place**

Once the material has been transcoded, ingest and sent to a central storage unit, VPMS again takes control and initiates a quality check of the data. An interface to a file check system from Baton ensures that the technical data quality, for example in terms of the production format and picture and sound quality, is checked. This way, around 100 hours of material can be monitored every day for conformity. Parallel to this QC, the material can be accessed at any time for further processing, with the system architecture generally allowing for two different production paths. This allows the standards and practices editing function to carry out high quality low-res production based on the MPEG4 proxy files.

Additionally, PreviewClient is used as an extra production tool for VPMS, to completely edit the material based on the proxy files. VPMS then creates the corresponding high-res file in the background, which is later transferred to playout. The advantage of this method is that in the case of important content or if the team’s own post-production is already at full capacity, high-res editing will no longer be necessary. If there is more time and staff capacity in production, the material can also be intensively edited in a post-production environment.

At a total of four fully-equipped Apple Final Cut Pro editing workstations, the cutters can use in-place editing to process the material. This means that the cutter can edit and make the material available right on the Omneon MediaGrid storage system in high resolution, which eliminates the time consuming transfer of the material and enables fast turnaround. As an alternative to storing the material on the storage unit, it can also be saved in a high-res archive based on Isilon servers. Similar to Omneon MediaGrid and the HP low-res storage, Isilon archives are fully redundant in order to prevent potential data loss.

“One of the particular challenges was to design and equip the technical infrastructure with a workflow that is as easy and intuitive as possible for alternating operators. Another challenge was to create the platform as compatible as possible for various standards and formats, so that Etisalat can offer an infrastructure that adjusts seamlessly to even the most diverse production and broadcasting requirements. To accomplish this, we specified the system components and processes of the central media asset management system from our partner Arvarto Systems. The cross-functional control will systematically be pursued in all areas such as ingest, playout, central storage, studio automation as well as video, audio and graphics editing,” says Thomas Mueller, General Manager Qvest Media Dubai.

**Transfer to playout**

As soon as the material that is ready for broadcast is available on the MediaGrid or in the archives, the scheduling management tool of MediaGeniX comes into play again. Based on the broadcasting list which is also transferred to playout in the form of an XML file, automation requests the required clips in the VPMS. Once the data has been made available it is then transmitted to the Omneon Spectrum playout server.

From this point on, the Neptune automation by Pebble Beach Systems takes over full control of the material and any necessary playout processes. Alongside Dolby encoding and audio and video monitoring, graphic tasks such as the channel branding for on-air promotions are also placed in the playout environment. Using a graphics system mainly based on Miranda and Vizrt components, graphics, overview tables, channel logs, lower thirds and writing can be added flexibly during broadcast. Creating graphics is facilitated by pre-defined templates which can already be filled with content such as texts and pictures in the program planning phase. This way, not every single graphic needs to be provided by a graphics designer, but can be created by a programme planner in a recurring and uniform look through the use of templates. Real time rendering of the final graphics is done during broadcast.

For the multicast of the material in HD and if necessary in SD, a total of 20 channels are available to Pebble Beach Systems automation on the Omneon playout servers, in order to provide for nine complete broadcast chains.
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Filmmaker Asif Limbada and cameraman Andrew Clemson – the first two people in the Middle East to receive the much-awaited Blackmagic Pocket Cinema Camera – share their experiences in exclusive reviews with BroadcastPro ME this month. We start with Asif Limbada...
I recall the first time I saw Blackmagic Design’s Pocket Cinema Camera (BMPCC) when it was unveiled at NAB 2013. I had come to Vegas with the intention of placing an order for the RED DRAGON, which was also being released at the same show. But the BMPCC caught my eye and I was, like many others, awed by its size, its features, its form factor and more importantly, its price point of USD 995.

And why wouldn’t I be? Although small like any other Micro Four Third (MFT) mirrorless camera, this one can do CinemaDNG RAW and ProRes 422 (HQ) at 1080p.

The possibilities this poses are endless as I am a “RAW” guy and have worked with RAW codecs ever since I acquired my first RED EPIC a few years ago.

The BMPCC with its 13-stops of dynamic range at such a low price point opens a world of opportunities for filmmakers to go out and shoot more content and make art. It allows them to flirt with RAW technology, so they become more competent using high-end digital cinema cameras when they get more serious. Pocket Cinema Camera is the gateway drug to RAW digital capture. Period.

To me, it appears to be a hobbyist camera like the 5D although that’s not to say that it cannot be used in a professional environment.

But CinemaDNG is not yet enabled, in a typical “get it out, sort it later” BMD fashion. While we are at it, I find it a bit annoying that it does not do any stills although yes, I’m aware that this is primarily a video camera. So you might have to carry a stills camera to capture those behind-the-scenes pictures if you are planning a lightweight and non-fussy setup.

My first thoughts about this camera was how we could potentially use it,
and crash cam was the first thing that came to mind as the size and weight of the BMPCC is one of its most impressive characteristics. This means I could use it in places that I could not even think of mounting a RED EPIC or an HDSLR.

It has two mounting points. For me, this is sufficient although people might argue that if one is used for a tripod plate, and another takes up an accessory, most likely a coldshoe adapter, then you're stuck. The solution, in that case, is a Cage to rig it all.

We have been working with GoPros a lot. On location, it is common practice to use a variety of cameras. However, when we cut between formats, the image shows up the differences in quality from camera to camera. This is primarily because you can't control the camera's shutter speed and ISO although you can cheat this on the GoPro by adding filtration, which corrects for exposure by a means other than the shutter.

This is not to say that GoPros are not awesome but there are cameras with more options and bigger sensors that can give you better image quality. Like the sigmaCAM of course, although it comes with a steep price. Now the BMPCC gives you an option.

I had the opportunity to use the BMPCC on a music video recently. It was not a planned shoot but I thought it would be a great way to use the camera when discussing with the Director, Umair Tareen, where we had to gaff tape the camera, as we did not have the right accessory and time to source the grip equipment to mount it on an expensive electric guitar. We used a small but awesome workhorse – the Panasonic 14mm MFT pancake lens. The image was fantastic. The dynamic range in the footage was superb.

Another great thing about this camera is the discrete nature of this little beast. It can be manoeuvred into locations where a DSLR is frowned upon such as crowded locations. As it looks similar to small point-and-shoot cameras, it also won't attract the attention of the authorities.

Having said that, the small size is like a double-edged sword, because without any proper professional support, any camera with a small sensor would be extra shaky. The BMPCC without extra support or super wide lenses is very shaky compared to other HDSLRs or, at least, it appears worse because the camera and the MFT lenses are lighter and smaller. Putting a bigger and heavier lens on this counteracts this somewhat as do lenses with IS. The effective range of the Lumix zooms is 24-70 and 70-200, which is a stabilised range that you cannot get from the Canon L zooms.

The crop factor on the BMPCC is 3X for 35mm lenses, 1.3X from MFT and 16mm. ie. a full frame Nikon; Canon lens like a 35mm will give a field of view of 105mm when mounted on the BMPCC.

There are, however, so many options available in the market so you can definitely find the right handheld solution for you. I found the Zacuto Marauder very impressive for instance. Those rigs look awesome and are very stable.

I checked them out at IBC 2013.

One other point worth mentioning is that as the sensor size on this camera is small and it has an industry standard active MFT mount, the BMPCC can be used with a variety of lenses. There are so many good and comparatively cheap options available by Panasonic and Olympus that have the auto focus feature. There is a dedicated button on the back of the camera that allows you to toggle the focus if the lens you are using has auto focus. Otherwise, it toggles Focus peaking. This is a feature that most other HDSLRs don’t have – the Sony DSLRs being an exception. So you know that focus is spot on each time.

But the fun part is the possibilities of using the camera with exotic lenses. I ordered Novoflex mounts for this camera, as the German company makes top-notch products that I have used for my Sony NEX6 and Leica Summilux-M lenses.

I wanted to test the Leica Summilux-M lenses for the Leica still cameras that I adore. In this case, the Depth of field is not as shallow as what people may be used to from a full-frame sensor. This is because the smaller sensor affects the characteristics of the lens. You get around this by using faster or longer lenses.

The lenses, however, add a lot of texture, sharpness and feeling to the image. We have even tried them out with Zeiss ZF.2 lenses so this way you can use all those manual Nikon lenses with BMPCC as well. We are still waiting to get our hand on a wooden camera PL lens to MFT mount and put those huge cinema lenses with mechanics to pull focus and rack aperture properly. I know it’s a bit of overkill, but it is possible. There are so many S16 PL lenses out there at a good price on eBay that can be used on this camera perfectly. Again, the possibilities are enormous.
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Battery wise, you have two options. Get similar Nikon EN-EL20 batteries and keep a good number of them on a shoot as the batteries they ship with the camera are fairly low capacity. I suspect the camera is not power hungry but it does not include a lower power mode for standby/when you aren’t recording.

The other option for longer takes is a 12V power cable from Wooden Camera.

The menu system is not very intuitive, in my opinion. The small D-Pad button does not provide a satisfying click response, making one press it more often than necessary to get to an option. Switching it off has been the biggest issue I have had with the BMPCC. Like other cameras where there is a satisfying mechanical “click” to switching off, there is none here. So you have this small button that you need to keep depressed for three seconds and then, there is no information left on the screen. Now couple that with a not-so-bright LCD screen and you can never be certain if the camera is switched off unless you press other buttons to see if the camera is in operational mode.

If you do forget to switch off the camera and store it in your camera bag, it’s likely to heat up but once you’ve gotten used to the camera, I’m sure these little things can be ironed out easily.

As for the performance, the camera as of now is limited to capturing Pro Res 422 (HQ) at 1080p. The CinemaDNG RAW capture has not been enabled yet and will be available via firmware. I presume this feature will be ready by the time the BMD 4K Cinema Camera is launched. However, until the ability to capture RAW is enabled, I shall reserve my comments on this front as I have never worked on a Blackmagic Cinema Camera before.

The amount of detail and information the BMPCC captures is so much more than the H.264 codec-based HDSLRs. And working with ProRes, you need to make sure that the colour temperature is perfect. One other thing that you need would be fast SDHC cards. I recommend 95mb/sec cards. BMPCC does not work on cards with lower bandwidths than that.

One of the big challenges with this camera is the inability to format the SD cards in camera. You will either need many cards as RAW footage is memory hungry or you will require a laptop with an SD card reader so you can unload the footage there and format it on exFAT format.

The biggest disappointment, however, is the way the camera handles highlights. We get a good amount of information and detail in the shadows, so you can pull and push it as you like in post. However, if the exposure is right, you retain detail in the highlights but there is this issue of highlight blooming especially if there are shiny or completely burnt out highlights. There were instances where we could see a black dot in those extreme highlights. So, when shooting in bright conditions outdoors with little or no control over the background, you will have to over compensate it by using extra lights over the subject just to cut down on those blooming and black-dots in the highlights. There were instances where we could see a black dot in those extreme highlights. So, when shooting in bright conditions outdoors with little or no control over the background, you will have to over compensate it by using extra lights over the subject just to cut down on those blooming and black-dots in the highlights.

I am sure Blackmagic Design will have a firmware upgrade soon to will solve this issue if it’s not already addressed. But until, then we will have to work around this issue.

Overall, I love the images and detail the BMPCC gives and definitely plan to use this camera on shoots where I will need a smaller setup. Once we all get around the quirks and get used to working with the BMPCC, I’m sure I will appreciate it more on the field. Also, as RAW is accessible at USD 995.00, I won’t be surprised to see this camera being used for online content more often than other HDSLRs.

All in all, in my opinion, Blackmagic Design has struck gold with the pocket camera.
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Acquiring Blackmagic cameras seem to a big saga in itself so no review would be complete without a story on how one got it as well, I suppose.

I ordered the Pocket Cinema Camera back in April, minutes after it was announced at NAB. To date, that camera hasn’t shipped. Luckily for me, the way they seem to ship cameras is to send the same number of units to ALL distributors, no matter where in the world they are located, or how big. So despite the fact that the camera I ordered from the UK’s largest camera retailer is yet to appear, getting a demo unit from Dubai-based distributor Advanced Media, and subsequently my own camera from distributor MediaCast locally in Dubai, was much easier than I expected.

The BMPCC sports a super 16mm size sensor, and an active MFT mount. This differs from the existing MFT-mounted Blackmagic Cinema Camera in the sense that the larger camera’s mount was passive. That means there was no electronic control of aperture or focus. It also meant that the camera could not utilise IS functions in the lenses that had them.

The camera records 1920X1080 in ProResHQ. The ability to shoot CinemaDNG RAW is still absent on the camera, promised through future firmware updates. A RAW-capable camera (recording internally) of this size is absolutely unheard of and an amazing feat from Blackmagic. Some people may argue that the 5DMK3 can now shoot “RAW” via a third party hack but I’m just not a fan of it. It’s very limited in what it can do and I would never trust it on a commercial gig.

The only other cameras that can record RAW internally are REDs, the XT-upgraded Alexas and the larger Blackmagic cameras. Other cameras will record RAW (Canon C500, Sony Fs700/F5/F55, non-Xt Alexa) but all of them require bulky external recorders.

Marketing states 13 stops of dynamic range in RAW mode so that would place it nicely in the same range as the Alexa which certainly bolsters its potential as a B-Camera/crash cam.

The MFT lens mount can be adapted...
to accept pretty much any lens you might want to put on it. I have shot with Canon and Nikon SLR lenses, PL mount Cinema lenses and various C-Mount lenses, all of which performed great.

I’ve shot this camera in next to no light, at 1600ASA (maximum sensitivity) and I was amazed at what it can produce. Even though there is grain in the images in low light conditions, much like the Alexa, the noise has a very organic feel to it, and is much more appealing to me than other cameras at similar ASAs.

Support gear is available from a number of third-party manufacturers. I have always been a big supporter of Wooden Camera accessories for my RED equipment, and so was pleasantly surprised to see them offer the first solution out of the gate for the pocket camera.

The camera only offers two ¼ 20” threads (one top, one bottom) which basically means after adding a tripod plate and a hotshoe adapter for your mic or so on, you are left with no way to mount anything on your camera. A lightweight cage from wooden camera, offering additional ¼ 20” mounting points on top and on the side for handles or monitors can be had for as low as $99.

The full support package with cage, handles, 15mm rods, quick release and PL mount will set you back around $1500. If your camera is going out into professional environments, especially for rental, then a proper support kit is essential and you can’t go wrong with the wooden camera stuff.

The pocket camera isn’t without its issues, however. Upon shipping, the camera suffered from both a “blooming” artifact on specular highlights and practicals, as well as a “black sun” issue where objects beyond clipping (such as the sun) would appear black. A subsequent firmware release has already eliminated the black sun problem, and Blackmagic has shown evidence that the blooming sensors are a calibration issue with early units of the camera, which can be fixed by recalibration (at an authorised service centre). Having said that, neither problem affected me too badly while I was using the camera as both can be controlled somewhat by proper balanced exposure.

The other tricky thing about the pocket camera is the crop factor of its sensor. A 35mm lens on a 16mm sensor equates to a crop of around 3X. That means a 50mm on a 35mm camera will have an effective field of view on the pocket camera of 150mm. Lenses designed for MFT sensors or 16mm film cameras, will have an effective crop of 2X, so an 18mm MFT or 16mm film lens would have an effective FOV of 36mm on a 35mm camera.

This means, whilst you can put pretty much mount any lens on the camera, only the wider ones will be of much use. Most of what I shot initially was done using a Duclos lenses PL mount 11-16mm lens via the wooden camera PL mount, which equates to around 33-48mm on the pocket sensor.

The perfect lenses for this camera are likely the Panasonic Lumix zooms, which I was lucky to use recently for my review of the GH3. The 12-35mm and 35-100mm equate to around 24-70mm and 70-200mm respectively, a range most Canon DSLR users are used to, and both are very well stabilised via IS. The IS is very useful to counteract the rolling shutter artifacts caused by the pocket camera’s small sensor, and size, especially if you are planning to shoot handheld.

Recording is internal to SD cards. But while you may already have SD cards lying about, be aware that only the fastest will work in the pocket camera. I used Sandisk Extreme 95mb/s cards and had no issues. While you could record out of the MicroHDMI port to a larger recorder such as an Atomos Samurai Blade, the internal

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recording from the camera is so good (both internal and HDMI out are 10bit) that the only real benefit would be for longer recording times, and the additional bulk would seem rather counter intuitive to where this camera’s strengths lie.

Battery life is another nuance of the pocket camera. Whilst, unlike its bigger brother, it sports replaceable batteries, the battery life can be quite short. The camera ships with one 800ma battery, but the battery type is a widely available Nikon EN-EL20 type. These batteries come at 1020mah in their Nikon version, and I picked up some 1200mah very cheaply on Amazon. You can find them all the way up to 1800mah so that is definitely an option worth exploring. Again, you could plug a larger V lock battery in and shoot all day, but if you’re ok with the added bulk, it would suggest you might be better sticking to the 2.5K camera.

In my testing, I found I could spend a whole day filming casually on six 1200mah batteries and four 32GB SD cards. (That equates to around an hour-and-a-half of footage).

The menu is a welcome improvement for me over the larger camera, and is somewhat of a necessity on a camera of this size. Whereas the 2.5K model has a capacitive touch screen menu, the pocket has gone with a traditional button navigation system. Now, while the touch screen is faster to navigate, it doesn’t always favour sweaty hands, or the use of screenshades/viewfinder loupes which we categorically need here for shooting outside. Once you get used to the structure of the menu system (which is nowhere near as complicated as on a Canon DSLR), changing functions and settings takes no time at all, and you needn’t take your eye from the screen for a second. The more glaringly obvious benefit is that you don’t have to try navigating a touchscreen menu on a 3.5” screen!

The camera sports a nice little focus assist, much akin to peaking which helps with critical focus and has full Zebras, for checking your exposure falls within a manageable range. When fitted with an electronic lens like the Lumix zooms, the focus assist can be used to auto focus, albeit with mixed results.

Once again, audio seems to have been an afterthought in this camera. There is zero metering and the levels are so low I really couldn’t suggest recording anything other than a very basic scratch track direct to camera. I have yet to put a signal from a sound recordist’s mixer through it, but had to set the RODE videomic Pro to +20db to get anything even vaguely passable.

Where I see this camera excelling is as a replacement for other smaller cameras such as the Canon DSLRs or even GoPros in both covert filming situations and for jobs where the size is of benefit, i.e rigging multiple angles on car shoots, or even flying on lightweight Octocopters such as the DJI-S800 which can be bought locally from Advanced Media.

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### PRO

**In Brief**

**Pros:**
- Small size
- High Dynamic Range
- INTERNAL Raw recording (in updates)
- Log recording option in ProRes
- Robust file format
- Multitude of lens options

**Cons:**
- Small sensor/ greater crop
- Battery Life
- Only supports expensive SD cards
- Poor internal audio (with no meters)
- Early units exhibit highlight blooming

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I work on a lot of car commercials, and it always pains me to see an A-camera such as an Arri Alexa or Red Epic paired up with a Canon DSLR as a second angle. Even in ProResHQ, the Log colour space of the pocket camera is much more elastic and easier to grade than the H264 files from a 5D. Taking into account the insane price (just over the cost of 2 GoPros), I think once the RAW option is enabled, this will become a really solid go-to option for commercials.

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When did you join Abu Dhabi Radio and what changes have you brought about since then?

I joined Abu Dhabi Media four years ago. In Dec 2011, I was appointed Head of Programming of Abu Dhabi Classic FM and I took over the job of running the station in June 2012.

I strongly feel that a classical music radio station can become a commercially successful one if you have listeners, which in turn, is ensured if you provide them with the right content. Good content goes hand in hand with presenter talent. When I came on board, I reworked the two main pillars of our station – breakfast and drive. They were stocked with recognisable, upbeat classical music that played for not more than five minutes in one go.

The kind of music that we play is very diverse. In addition to classical music, we also play pieces from the movies, musicals, and operettas.

News is another recent addition to the station's programming. We do news on the hour and sports bulletins that run throughout the day.

I initiated the idea of building a studio in Dubai to establish a wider base. In May this year, a live link between the Abu Dhabi and Dubai studios was established via an ISDN line using VoIP codec.

The Dubai studio is a standalone facility used by Abu Dhabi Media's radio channels. Having a studio in Abu Dhabi as well as in Dubai places us in a unique position, which none of our counterparts enjoy. We have daily live shows from Dubai so we don't miss a beat when it comes to featuring the latest cultural happenings around the UAE.

Can you share some statistics with us on ratings, viewership, and the most popular slots on your channel?

We're the number one English language radio station listened to by Westerners in the UAE. That's according to the IPSOS Radio Waves Survey – the official audience measurement in the country. We've been growing consistently since launch, and have been the number one in the past three surveys – something we're very proud of – especially when we're up against other high-ranked and well-established stations.

Our two most popular shows are Breakfast Classics with Damian Watson and the Classic Drive with Rory Higgins.

The station’s share of reach across the UAE population has grown by 34% since 2011, while its closest English language competitor has grown by just 2.8%.

The latest figures show that in the station’s core market of western expats, Abu Dhabi Classic FM now has the third highest level of listener penetration, and is the third most listened to radio station in the UAE for this group.

The data also reveals that Abu Dhabi Classic FM is the number one ranked station in its core market for the 45+ age group, and third ranked for 35-44 year olds.

What are the basic differences between making television and making radio?

Making TV is great fun and very rewarding. TV requires a seemingly endless cast of people to make a programme, and a producer or presenter would never, for example, know the person who sold the advert half way through their show. A radio station, on the other hand, is more of a cottage industry with a ‘one big family’ feel. You have daily interaction with presenters, producers, sales people, clients, those doing your marketing, the engineers who make the whole thing run smoothly, not to mention the most important people – the listeners.
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The data also reveals that Abu Dhabi Classic FM is the number one ranked station in its core market for the 45+ age group, and third ranked for 35-44 year olds.

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Making TV is great fun and very rewarding. TV requires a seemingly endless cast of people to make a programme, and a producer or presenter would never, for example, know the person who sold the advert half way through their show. A radio station, on the other hand, is more of a cottage industry with a ‘one big family’ feel. You have daily interaction with presenters, producers, sales people, clients, those doing your marketing, the engineers who make the whole thing run smoothly, not to mention the most important people – the listeners

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Matthew Sansom, Head of Station, Abu Dhabi Classic FM
October 2013

Did you have any apprehensions when you joined the station – considering that you had never worked in radio before?

I have grown up listening to the radio but I must confess, I did not have a great understanding of what happens behind-the-scenes in the radio industry. It has been a steep learning curve but proportionally a fast one for me. I am happy to be here. I joined the station with a completely new set of eyes, which helped introduce fresh ideas.

What is unique about the UAE market?

The UAE is a very fragmented radio market. The challenge is to address such a diverse strain of demographics here. What’s remarkable about the UAE is how car-based listenership is driving the radio industry. So many people drive to work, listening to the radio for at least 45 minutes to an hour on an average. We have a huge FM listenership, predominantly car-based, which is not so in any other market.

What are the main challenges of working in a regulated market like the UAE?

You play the game within the rules of the game. The station began in 2010 and we got to our current position without any real advertising, purely by word of mouth. Our target audience is more discerning but we have a loyal following. At the moment, our objective is to increase this and reach out to more people by adding more varied content within the classic genre.

Classical music is about mood, and it is as much about selecting content as it is about selecting content to play in a certain time slot during the day. You can't play the Opera early in the morning but you can definitely play a piano piece.

Technologically, we have a very strong position too. No other network has transmitters in Al Ain, Jebel Ali and Abu Dhabi, which gives us excellent reception and coverage.

Can you shed some light on the technology deployed at your station?

Abu Dhabi Radio has been digital since 1998. In terms of software, we use Myriad, a computer-based automation system made by PSquared, with applications that serve all the facets of broadcasting – scheduling, live and full automation. We mainly use Studer studio kit.

Abu Dhabi Radio Network has undertaken a three-year archiving project. All our archives, which predate the formation of the UAE, are being digitised. All current broadcasting is logged – these will be available online in the near future. We run SAN (Storage Area Network) technology over fibre. The storage capacity in Phase 1 is 90 TB. It's a modular system that can be expanded into petabytes.

Sennheiser

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The latest version of Sennheiser Wireless Systems Manager (WSM), version 4.0, is now available for Mac. The software allows sound engineers to conveniently set up, coordinate and monitor wireless microphone and monitoring systems. In today's densely populated frequency spectrum, the WSM software has become an indispensable tool for those managing wireless systems.

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Sennheiser

The Pursuit of Perfect Sound
make the whole thing run smoothly, not to mention the most important people – the listeners.

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Do you encounter frequency issues? We have numerous antennae going deep into the desert to ensure all UAE nationals and residents can hear our programming. Most of these are unmanned stations using Rohde & Schwartz technology. In the event of a problem, they simply switch to an alternative frequency.

What’s the outlook for radio? Will we see more internet radio and visual radio in the coming years? Radio is undergoing a renaissance at the moment. It won’t be wrong to say that the average amount of time spent listening to the radio is going up.

Listenership is most certainly coming back. FM is here to stay. The UK market has been trying to bring in digital radio but it has not completely taken off.

Radio to this day remains financially a very competitive way of reaching a mass audience and targeted markets. One sees a great deal of innovation in radio.

Personally, I’m a huge fan of internet radio. We have listeners from places as diverse as Mexico and Australia who pick us up online. In this region and around the world, internet radio is the hottest trend.

In future, I would like to see more of internet radio. With bandwidth issues behind us, consumers will demand internet radio, on their phones, mobile devices and in their cars.

It is a crucial part of the renaissance of radio. It’s leading to people listening to more radio as a whole – especially through smartphones with aggregators such as TuneIn. At some stage, car manufacturers will provide internet radio receivers in cars.

In my opinion, visual radio adds the experience for some listeners, especially when providing information about the station and programme in question. It has clear commercial advantages too, of course, but at the risk of sounding like a boring old man, I believe that radio is an aural medium and many listeners enjoy the radio whilst engaging in other activities.

I find live web cam broadcasts of radio shows rather dull. Radio lovers feel they have a far closer relationship with the voice coming out of the speaker than TV viewers feel they have with the person on screen. The art of good radio presentation is to create that bond.
Fuel Your Passion.
Introducing Flame Premium 2014

Autodesk Flame Premium 2014 Ignites Creativity, Fuels Artistic Control

New Release Unites Visual Effects and Editorial Finishing with Intuitive Workflow and Enhanced Color Grading Integration

The latest release of Flame Premium combines the creative capabilities of Autodesk Flame 2013 20th Anniversary Edition software, Autodesk Smoke Advanced software and Autodesk Lustre software in an efficient, intuitive new workflow that integrates visual effects and editorial finishing. Autodesk Flame Premium 2014 also features powerful new 3D visual effects creation tools, a graphics processing unit (GPU) pipeline that extends across the application for improved interactivity in the workflow, and enhanced real-time color grading tools, helping simplify and accelerate complex production tasks.

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The C100 in focus

Canon C100 from the Canon EOS family has piqued the interest of new filmmakers for a number of reasons. Freelance Director and Filmmaker Kamil Roxas tests the camera for us

Being primarily a documentary filmmaker, I have been shooting most of my projects with the Canon line of HDSLRs, 7D, 5D MKII and MKIIIs. Although I love all of these for their convenience they are not without their limitations. I wouldn’t grade them as video cameras as none of them have XLR mic inputs and their ergonomics have never really allowed for easy handheld shots.

Canon’s EOS line, however, comes with great filming capabilities. The C300, for instance, is a compact, large sensor cinema camera that produces a sharp, very organic, and film-like picture quality that can compete with higher end cinema cameras. The C500 is even more promising with its 4K resolution, RAW output, and record at 50mbps broadcast quality video at anywhere from 1 to 60fps.

Both the C300 and the C500 have indeed impressed digital filmmakers. But their price point makes them out of reach for
most indie filmmakers, who work with tight budget constraints. That’s one of the main reasons for the popularity of the C100, which has won over a loyal following because of its price.

The C300 is one of the best compact cameras that I have worked with for a lot of reasons including ergonomics, image quality, and post production workflow, to name a few. However, one balks at the price of the camera, wholesaling out USD 17,000 is no joke. So, naturally, the launch of the C100 particularly interested me as it comes with a host of features at a price tag of $5,000.

I would compare the C100 more to the Sony FS100 or the Panasonic AF100. These are some of the high-quality broadcast cameras that are reasonably priced. The Sony FS100 scores over the C100 with its full-HD recording of up to 120fps. This high speed recording was not made available to the C100. However, among these three, the C100 wins hand down for its ergonomic build. It has a very sturdy feel to it and is perfect for handheld shooting. It does a really good job of blending the look and creative style of a DSLR with the practical functionality of a traditional video camera.

The C100 has everything that you would expect from a compact cinema camera—a 35mm, 16:9 full-frame CMOS sensor with full HD capture, two XLR inputs, built-in ND filters, and a solid pistol grip that makes handheld shooting a breeze. The C100 also has two nifty features that were previously not made available to its older siblings: a 1-shot Autofocus and a Push Auto Iris. With the 1-shot Autofocus, you see a square in the centre of the image that glows green when the subject is in focus. The Push Auto Iris evaluates exposure and makes any required adjustments before shooting.

The C100 is approximately 85% of the size of the C300 but it doesn’t feel much different in use, partly because it uses the same pistol grip handle.

On the grip there are several logical buttons such as an f-stop dial, magnification and a mini joystick menu navigator. These features are literally at your fingertips – and the record button perfectly under your index finger.

Magnification on the C100 works extremely well. It’s 2X zoom makes getting focus so much easier and can even be done while you are recording. The mini joystick navigator is now also a much more intuitive way of navigating the setting on the LCD as it can be done without moving your hand from the grip and it’s also easy to make changes while looking through the EVF.

**Shooting in the real world**

If you are wondering how the C100 would fare in the 40-degree UAE summer, you will be pleasantly surprised with the camera’s performance. Although, it wasn’t any surprise how loud the fan was when recording for hours at a time, I imagine this wouldn’t be the case under normal shooting conditions. The camera was more tolerant and did not overheat with over five to six hours of sporadic shooting outside in the summer heat.

However, shooting under the desert sun also has a few downsides for the C100. For starters, its viewfinder/EVF has no eyecup unlike the C300. This has been my least favourite design on the camera as it makes for difficult shooting under the sun. The built-in diopter adjustment is also hard to get to, tucked underneath the viewfinder it is quite tricky to adjust while your face is tightly pressed at the back of the camera looking into the viewfinder.

The camera’s LCD screen is excellent, but the placement on the back is a bit

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**C100 features at a glance**

<table>
<thead>
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<th>Feature</th>
<th>Description</th>
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<tr>
<td>15% smaller than C300</td>
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<tr>
<td>EF mount</td>
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<tr>
<td>super 35mm sensor</td>
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<tr>
<td>AVCHD codec</td>
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<td>2 slots take SD-/SDHC-/SDXC-cards</td>
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<td>24/25/30p and 50/60i</td>
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<td>ISO 320 – 20,000</td>
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<tr>
<td>Canon’s log gamma</td>
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<tr>
<td>Canon DIGIC DV III processor</td>
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<tr>
<td>Push button AF functions</td>
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<tr>
<td>Magnesium body</td>
<td></td>
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<tr>
<td>2 XLR audio inputs</td>
<td></td>
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<tr>
<td>Built-in ND filters up to 6 stops</td>
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The LCD screen is excellent, but the placement on the back is a bit limiting.
limiting. It is in the same orientation as to operating an HDSLR. I would have preferred it to be on the side, against my support so you can press the camera to your face or on your chest to give some stability while recording.

The C100 uses a mechanical wheel to dial on the built-in ND/filters. I found this manual approach a lot better than the electronically controlled motorised ND/filters of the C300. However, it is also possible to leave the ND/filters partially engaged and only halfway covering the camera sensor if not careful.

Image quality, input and output

The most impressive feature of the C100 is its image quality. Given that the C100 has the same super-35mm sensor found in the C300, you can expect an incredibly sharp image, and terrific low-light performance.

The C100 also offers the Canon Log Gamma option, which allows the camera to shoot with a color profile designed to obtain more information in highlights and shadows, for a wider dynamic range. The images may look washed out during the preview and playback mode but you have the ultimate editing flexibility, when color correcting to get precisely the look you want.

As an EF mount camera the C100 is designed to be compatible with Canon’s EF and EF-S lenses for DSLRs, plus the EF mount cinema lenses to provide filmmakers and videographers with a wide choice of creative shooting options.

The C100 has two slots that can take SD/SDHC/SDXC cards and can record data rates that range from 7 to 24Mbits/sec, meaning you can record nearly six hours of footage on a 64GB memory card. The camera records in AVCHD MPEG-4 AVC/H.264 compression.

The C100 supports NTSC and PAL frame rates, giving you 60i, PF30, PF24, and 24p options in NTSC mode, and 50i, PF25 in PAL mode, although there are no 50p, 60p, or high-speed shooting options.

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“The C100 is still a pretty expensive camera, despite being the baby of the Canon EOS Cinema range. However, it does have a lot of innovations that make it very suitable for solo, run-and-gun style shooting.”

Kamil Roxas, Freelance Director/Filmmaker, Abu Dhabi

Wish list:

* High-speed full HD recording of 120fps
* 16-bit codec
* Mountable eyecup

In brief

Pros:

* Hand grip
* Low-light performance
* Built-in ND/filters

Cons:

* Viewfinder/EVF
* No built-in mic when the top handle is removed
* No HD-SDI port

The verdict

The C100 is still a pretty expensive camera, despite being the baby of the Canon EOS Cinema range. However, it does have a lot of innovations that make it very suitable for solo, run-and-gun style shooting. This is a very compact, high performance cinema camera that is perfect for TV series, documentaries, corporate and independent films.

The C100 is not a perfect camera, but it sure is groundbreaking with its image quality and overall creative controls. One should keep in mind that at the end of the day it is but another tool in your kit, and what’s more important is your ability to shoot and tell the story with the images you produce.
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Last month, BroadcastPro ME attended the screening of *RUSH*, a biographical action film directed by award-winning Director Ron Howard (*A Beautiful Mind*) about the 1976 Formula One season, and the rivalry between drivers James Hunt and Niki Lauda. Howard is said to have used the Canon EOS C300 for most of the handheld shots.

We caught up with Hendrik Verbrugghe, Marketing Director of Canon Middle East, at the screening for a quick chat.

**Q** How are you addressing the professional production demand in the region?

The region’s filming industry is replete with multiple universities that are now offering production courses and there is a growing pool of young aspiring talent. In addition, local platforms such as the regional film festivals are giving a huge boost to production. As such, there is huge interest in professional film making in the region which serves Canon the right opportunity to tap into.

We have our strongest-ever professional video line-up including the EOS C300, EOS C100 and EOS C500 to address the needs of this market.

**Q** What is Canon’s ultimate goal in the Film and TV industry?

Our main goal is to provide tools that offer film and video-makers greater creative flexibility. With our expertise in sensor development and our heritage in lens design, we believe we can provide high quality, highly versatile products that will offer even greater creative possibilities for both film and video professionals.

**Q** Canon USA has established a service and support centre in Hollywood. Do you have any plans to open a similar facility within MENA?

We do not have a similar Canon office in MENA. However, we do have a professional support network already in place.

We have a comprehensive distributed support programme for broadcast and professional video customers in MENA already in place. Using this channel, we’ll listen to the needs of our customers and support them as necessary.

**Q** Cinema EOS is a natural fit for the US market, where there is a huge film production industry. What business opportunities exist for Canon in EMEA?

Europe, Middle East and Africa combined represent the second largest box of face in the world. Here in the MENA region, the film industry has witnessed unprecedented growth over recent years, and particularly in Egypt, where the movie industry continued to go from strength to strength.

In the UAE, there has been a real boom in local film production houses, and high profile films such as *Mission Impossible 4* and *Black Gold* seem to have further stoked the region’s appetite to deliver high quality, local productions.

**Q** Hendrik Verbrugghe, Marketing Director of Canon Middle East.

While the film production industry clearly represents a major market in EMEA, we also believe that the potential for Cinema EOS extends to other industries like wedding videography, news gathering and independent documentary and corporate film-making, which is significantly huge in this region.

Also local film production houses like D-7 Motion Pictures by Nayla Al Khaja have all contributed to a strong demand for serious film production in the region.

We were even more aggressive and ambitious and experimental about tucking the camera away or going handheld with a longer lens from an off-position and using it as a way to capture something unexpected. In two very significant ways, it was very, very different. The handheld shots were sometimes close-ups, creating an intimacy. The other shots were grabbing the unexpected visual possibilities of a scene. It became a great tool on both fronts.” — Ron Howard, Director of *Rush*.
Opportunity knocks but once
PRO
TECH
Post production was a mechanical process in the good old days. Films were made scene by scene, shot by shot, and editors cut the celluloid to use the best takes with the right rhythm to tell a story. Visual effects were processed with time-consuming optical printers, and colour correction was just that – correcting different colour responses to get a consistent look. Using light valves as the inter-positive was made from the cut negative.

As post moved from film to digital, the concept remained the same. The editor created the finished cut to tell the story, the visual effects were added, and the end result was colour corrected. Modern digital tools allowed for more creative use of colour control, but it was still a separate process, normally the last one in the chain.

The continuing development of Post production is now completely non-linear and fully collaborative, allowing different departments to work on the same content simultaneously, thereby simplifying work flow and improving production quality.

Making the cut technology, and processing power in particular, has led to two major changes in the way content is handled during post production. Firstly, the content is stored and manipulated as a digital file, rather than as a linear stream. This makes exchange of content between devices simpler. Secondly, the increase in raw processing power means each stage of post is non-destructive, which means the original content is retained, and all we are doing is assembling a set of instructions on how to treat that content. The availability of more processing power means that those sets of instructions can be implemented in real-time so we can see what we are doing as we compile the post. The result is that post now is truly non-linear, and fully collaborative. Each department can work on the same piece of content, simultaneously. Changes applied in one suite are reflected in all the others, but they do not have any effect on the way other artists work because each suite compiles its own set of instructions.

Compiling colour correction
If we look at colour manipulation as one element of the process for the moment, we can see that this idea of collaborative workflow can begin even before the rushes reach the post house.

Most movies and commercials today are shot using digital cinematography cameras rather than film cameras. This enables the director and DoP to see what has been shot, immediately. Digital cinematography cameras are designed to create a high contrast image, allowing for plenty of headroom for the colourist to work with. Viewing this output directly from the camera on a...
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Mark Burton, Marketing Director, FilmLight

conventional HD monitor, though, results in a very flat, low contrast image. Some directors live with this and learn to interpret the flat pictures. A vast majority of directors, however, expect to see the finished image in a replay on set, to get a better idea of how the shot will fit into the overall look of the project. The simplest way to achieve this is to have colour grading tools on set to process the raw footage instantly. This can be achieved using a dailies system like Baselight TRANSFER, or an on-set colour visualisation system like the FilmLight FLIP, which applies lookup tables, grades and filter effects to the live output of your camera while you are shooting on set — and adjust to achieve the director’s vision. This can be operated by the production’s digital intermediate technician (DIT) or, on a major project, by one of the colourist teams responsible for finishing the project. When using FLIP, the senior colourist creates pre-set looks to help the DIT achieve what the director wants on location.

What is important to remember is that, whichever tool is being used, the colour grading imposed on set is reflecting the wishes of the director, so it is worth preserving that information to help when the scene gets to the colour suite in the post house. Remember that this is non-destructive colour grading and we are retaining the original output of the camera and compiling metadata that communicates with the processor about how to adapt the colour balance. That metadata is a colour decision list, just as an offline editor would produce an edit decision list. In both the cases the metadata will be amended and expanded in the finishing of the movie, but they provide a solid foundation to work on.

**Colour assurance**

Before moving on to the post house, there is one more important consideration. Viewing conditions on set, usually on an HD monitor, will be different to that in the grading suite and will be different again to the target display, which might be a cinema projector for a movie. Starting colour correction on set is only of value if the monitor itself is not adding its own colour distortion. The sort of low cost, high brightness LCD display used on set will have different colour curves to the grading monitor in the post house, which may not precisely match digital projection standards. Different manufacturers have subtle differences in colour gamut.

You have to establish a reference standard, then calibrate each display to that reference. Again, advances in processing power make this practical. Small differences in colour response can be corrected using three-dimensional LUTs (look-up tables), which shift the signals appropriately so that any connected display looks like the reference. Each display needs to be calibrated once and the required connections are stored in a system. The result is not to create identical displays but to have displays that offer a well-matched colour response.

**Collaboration**

Once the material gets to the post house, everyone can start working on images that look the way the director intended. Editors can focus on telling the story without being distracted by jumps in the way the scenes look. Visual effects designers can create computer-generated elements knowing they will blend into live action.

In the grading suite, the colourist can start refining the look of the project. Because it is non-linear, the colourist can pick up all the scenes at the same location and grade them for consistency, or look at the elements of a complex effect shot to ensure they fit together.

As well as achieving a better look, the ability to match each element for colour means that there is less need for manual work at the compositing stage. What would once have gone into a visual effects suite to make a shot work can now be composed and finished in Baselight, even when it contains many layers of CGI and mattes. The colourist can work on individual layers to ensure it looks right when combined.

Collaborative workflows also mean what was once a solo task can now be split. A lead colourist, for example, could set the look for a production that is then implemented by an assistant colourist, freeing up time for the lead colourist to finesse and refine the final look.

This is not just for major movie productions – collaborative workflows can also be valuable on lower-budget projects where there is a need to process the work quickly. The German production house GrundyUFA, for example, simultaneously produces four daily dramas, each with as many as 50 standing sets.

Each time a production unit moved to a new set, a large amount of time was lost in lighting and calibrating cameras, which made the demanding schedules even harder to achieve. The solution was to use Baselight FLIP, loaded with references scenes that are used to apply the “normal” correction to the camera output.

The DoP can instantly see if the lighting and camera settings are correct, and quickly make adjustments if necessary, either to the lighting or to the colour grade. The result is a huge practical saving in time and cost on routine daily drama, using the same principles of collaborative workflow which stretch from the point of origin to the point of delivery.

It underlines the way that the real benefits of file-based content are finally being delivered — through collaborative workflows relying on metadata-driven, non-destructive processing. In post production this results in a transformation by eliminating repetitive tasks, making the process more dynamic, and ultimately reducing costs while delivering better quality and more creative freedom.
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With more than 150 pro-audio visual communication systems suppliers and manufacturers from 35 countries participating in the event, systems installers and professional end users from diverse sectors can expect to see a wider spectrum of innovative products and benefits from a host of summit presentations. The exhibition runs from October 20 to 24, 2013 at Dubai World Trade Centre in Dubai. Admission to both the trade exhibition and summit is free, subject to registration.

The Middle East is one of the fastest growing pro-AV markets in the world, fueled by massive developments in sectors companies which have confirmed their participation include Extron Electronics, Jupiter Systems, Crestron, Da-Lite Screen, DAS Audio, Mitsubishi Electric, RGB Spectrum, Sharp Middle East, Sonic Foundry, Taiden, Wavetec and WolfVision. Several manufacturers namely Blackmagic Design, Exterity, Primascreen, Matrox, MMD Monitors and Display, R&M International, Shanghai Pallas, Shenzhen Leyard, Shenzhen Retop LED, Tyans and Techrobotix, will also be making their debut at InfoComm MEA 2013.

The event targets systems integrators, trade distributors and dealers as well as IT and Technology Managers from diverse vertical markets such as Education, Government Services, Hospitality and Enterprises. Admission to both Exhibition and Summit is free. Registration is required.

Alongside the trade exhibition runs a summit programme that allows AV professionals and personnel to network. The summit offers valuable insights from market perspectives, technology updates to specific industry practices. It is targeted at all levels of personnel involved in AV technology for learning and networking opportunities.

Back for the third year, InfoComm MEA 2013, organised jointly by InfoComm Asia and Dubai World Trade Centre, offers increased opportunities for connection and collaboration, for both dealers and users of pro-audio visual technology in the Middle East and Africa.

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The Middle East is one of the fastest growing pro-AV markets in the world, fueled by massive developments in sectors that use professional AV equipment especially education, transportation, retail and hospitality. Regional economies are also making huge investments in education, with an eye on “optimum use of technology … to open new avenues for innovation and excellence”.

AV systems are now a necessary resource in many businesses, particularly with AV-IT convergence. Effective information management and timely delivery of information to customers, colleagues and business associates are essential for business success in today’s digital and highly competitive world.

Exhibitors at InfoComm MEA 2013 will showcase their newly launched products and demonstrate how these can be applied seamlessly in various sectors. On display will be solutions like videoconferencing for education and corporate meetings; display walls and matrix switchers for command and control operations; digital signage and touchscreen systems for hospitality and retail; audio and PA systems, projectors, screens, AV-IT connectivity solutions, and more.

Companies such as Arthur Holm, NMK, Theatro and Venuetech have doubled their booth sizes from last year. Other companies which have confirmed their participation include Extron Electronics, Jupiter Systems, Crestron, Da-Lite Screen, DAS Audio, Mitsubishi Electric, RGB Spectrum, Sharp Middle East, Sonic Foundry, Taiden, Wavetec and WolfVision.

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IBC announced that more than 52,974 industry professionals had come together for the show this year. One of the highlights of the show this year was the presence of Saudi Arabia’s HRH Prince Fahad bin Faisal Al Saud, who participated in the “In Conversation” series.

Prince Fahad stated in the conversation that Saudi Arabia would witness a huge change in terms of film production in the next five years and the world was to expect many firsts from the Kingdom soon.

Prince Fahad’s promise coincides with the entry of Saudi Arabia’s first film Wadjda into the Oscars in the Foreign Film Category. Ironically, it is the work of the Kingdom’s first female director, Haifaa Al Mansour.

A second highlight of the show was a peek into 100 years of Indian Cinema, and the most celebrated legend of Indian Cinema, Amitabh Bachchan, was at the show to discuss some of the milestones in Bollywood. We learnt from Bachchan that the famous Bollywood hit Sholay first brought in audiences because of new audio technology.

“People wanted to know how sound travelled from the speaker on the left side of the theatre to the right, when I tossed the coin. Some people came to hear that again. So it’s really the technology that initially brought people to see Sholay. The plot came later,” he stated.

The panel was chaired by Mohinder Walia, Managing Director of Mumbai Media City, India’s largest studio, broadcast, content management and media school facility. Walia opened the keynote in conversation with Amitabh Bachchan and this was followed by a panel discussion with Ashi Dua, Producer of Bombay Talkies, and Ujwal Nirgudkar, Chairman, SMPTE India and Director, Film Lab.

Nirgudkar announced at the event that Sholay was now being made in 3D.

The Indian Film Industry produces more than 1000 films every year. Just Bollywood’s revenues are said to have been $3 billion in 2011 and that figure grew by 10% last year. It is said that by 2016, revenue will reach an estimated $4.5 billion.

Bachchan was awarded the judges’ prize at the panel discussion for his contribution to Indian cinema.

Speaking of awards, the IBC2013 awards concluded this year with the IBC International Honour for Excellence going to Director Peter Jackson. The ceremony also saw the presentation of the IBC Innovation Awards for Content Creation, Content Management and Content Delivery to some of the most innovative broadcasters.

Park Road Production in Wellington secured the award for content creation while Irish national broadcaster RTE won the award for Content Management for its FAST project – File Acquisition and Server Technology.

The Japan Commercial Broadcasters’ Association walked away with the award for Content Delivery at the event for undertaking a major project to build a contribution and distribution network across the country.

In the meantime, some of the key technologies at the stands revolved around 4K, high frame rates, HEVC, and, of course, AVB. In the next few pages, we take a look at what some of the companies were showcasing at IBC 2013 and more importantly, what some of them identified as the key trends for this year.
BARBARA PETERSEN, Sales /Public Relations, 2WCom

Our products address a rather niche segment of the broadcast industry, which is a small vertical in the radio industry. We are well-known for our high-quality satellite receivers for audio contribution.

While I believe the demise of FM is nowhere close just yet, as a company we are adapting to the new trends in audio and satellite contribution to create a system to transmit DAV plus via satellite and via IP. Our focus is on audio via IP.

2WCom has introduced the new FMC01, a compact codec, encoder and decoder for FM MPX distribution via IP or E1 (G.703). As the first unit to combine encoder and decoder functions in the same chassis, the FMC01 offers significant operational advantages and infrastructure savings.

With regards to market outlook, new products will eventually replace traditional radio with audio over IP products.

The Middle East is a white blanket for us; I would like to step on it.

LAURENT FANICHET, Product Marketing Manager, Quantum

Broadcasters are moving away from video tape in favour of storing the content on LTO tapes. In order to access and retrieve the content that you don’t require on a regular basis, tapes come in handy. You don’t need high performance storage for that.

Storage solutions need to be tailored, based on individual needs. Quantum has developed an entire ecosystem working with Virt and Dalet closely. Companies such as Snell and FORK are using Quantum storNext engine and have a MAM on top of it.

Today's collaborative workflows demand open-ended systems that support different products, which is why manufacturers are increasingly more agnostic to brands and moving away from proprietary.

The Middle East for us is a growing market and we are looking at expanding our network of resellers and distributors in the region. We manage the storage for big names such as MBC and Saudi TV in the region.

CHARLIE VOGT, CEO of Harris Broadcast

IP is the way forward. Customers are driving us today where they can leverage their technology. IP will enable the broadcasting industry giving an opportunity to standardise on a protocol that universally has been supported by suppliers and broadcasters. I also feel that there is a lot of content that is going to be virtualised and put in the cloud. There will be a lot more flexibility and options in the future.

We are spending more money in the software networking side of our business in the development of solutions. Clearly, the cloud and virtualisation will play strategic roles and we are keeping a keen eye on that.

PETER SCHUT, CTO, VP of R&D, Axon

Neuron is the industry's first video over Ethernet product based on the open standard AVB (Audio Video Bridging) technology based on IEEE802.1. It was exhibited at our stand during IBC.

AVB is Axon’s buzz, we say this is the beginning of the end of SDI. In the next decade we will see SDI going away and being replaced with off-the-shelf Ethernet connections, which are cheaper, more efficient, single wire for audio, video control. As well as integrating AVB, an open standard, Neuron will help broadcasters create a live end-to-end audio and video production system with monitoring, management and protection.

KEVIN USHER, Director Media Enterprise, Segment Marketing and TONY CARIDDI, Marketing Director, Audio at Avid

We saw a lot of vendors showing early solutions around 4K at the show this year. As a theme, multi-platform distribution is very significant. There is more content to be managed, as the trend towards multi-platform delivery gains momentum. Broadcasters are creating new channels to take the content to mobile devices and new media. These trends have paved our roadmap too.

Avid Everywhere – a strategy that we announced at NAB this year continued at IBC.

The first products under Avid Everywhere will hit the market two days before NAB 2014. It’s a part of the strategic vision, which expresses the company’s commitment to create end-to-end, distributed media production environment in the industry.

FRANCOIS QUEREUIL, Senior Director, Aspera

Companies nowadays are trying to keep their file-based workflows from production all the way to delivery in a digital round and we are one of the key technologists that enable them to do that. FTP is bottlenecked and with resolutions going up we need to work on alternative solutions for file transfer.

Aspera is completely agnostic to the type of IT infrastructure for fast uploads to Content Delivery Networks (CDN) Akamai, limelight, Level 3 and so on. Cloud is gaining more traction as well because that’s where the future lies.

It is a great fit for processes that are time bound, and cloud enables companies to use the storage without investing huge amounts in infrastructure.
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JOHN ILLINGWORTH, General Manager and Sales Director, MENA and BEN GIDLEY, Product Director Broadband Solutions, Irdeto

Broadcasters the world over are now looking at the second generation of OTT solutions. The common trend in the Middle East and also in Africa is to leapfrog to the new wave of solutions. While Europe and America struggled as early OTT adopters, the Middle East doesn’t have to go through that, adopting the latest instead. Another trend that’s gaining traction in the Middle East is the inclination towards hybrid set-top boxes.

Globally, there is a lot of buzz around OTT. Solution providers like Irdeto are focusing on providing multi-screen products as a package for operators either as a turnkey solution or as a rapid approval concept. These solutions are customised to the end user’s need.

We are also working towards developing set-top boxes with tighter integrated IP support and expanding the range of our devices to sort out smart TV fragmentation issues, user experience issues, and so on. Companies are focusing more on the user experience.

NILS QUAK, Marketing and Communications, Riedel

We introduced MN-ST-AL-2, the company’s new MediorNet expansion card for Studer consoles. The new MediorNet MN-ST-AL-2 card supports compact or larger decentralised digital audio router applications with any network topology, and it requires just a card slot with two high-speed ports.

The convenient routing of the audio stream is handled by the user-friendly MediorWorks control and management software via drag-and-drop programming. Additional routing adjustments can be performed via Pro-Bel commands or the new EMBER+ remote control protocol in MediorNet.

In the past, our projects in the Middle East were managed through our distributor Quest Media. Now we have a local presence there with a dedicated sales person in Dubai. The official opening of our Dubai office will happen at the end of the year and we plan to add more service and technical staff in time.

BENOIT FOUCHARD, Chief Strategy Officer, Ateme

For 15 years, we were delivering the core encoding algorithms to other manufacturers. Now we build our own products with our own code for digital video compression to create MPEG 2 and 4 and HEVC to enable broadcasting.

We have a recent presence in the Middle East with our first customer Inigral. They chose our Titan transcoding platform to service transcoding for multiple screen for Saudi Telecom Company (STC).

DAVID ROSS, CEO, Ross Video

On our stand, the traffic was up 50% from last year and the number of leads has gone up too. The industry is ready to embrace what Ross is doing. We have grown the company’s reputation through switchers, which is a growing market even today. We introduced Inception News that allows journalists to simultaneously create content for both traditional TV channels as well as social media and the Web with the ability to publish finished video files to a list of services including Twitter, Facebook, YouTube, Flick, Brightcove, BIM and WordPress. The traditional NRCS workflow has been reimagined with Inception providing a comprehensive, easy-to-use environment for news organisations.

One of the things that news professionals love about Inception is that social media and the web are front and centre along with the linear news production.

Inception News allows you to regulate the social media. You can go back to see where the original information came from. It gives accountability and traceability to news feeds on social media.

SAID BACHO, Senior VP, Grass Valley EMEA

We demonstrated the latest GV Director and non-linear production centre at the show. In addition to these, Edius7 was demonstrated for the first time on a public platform at the show. There was also K2 Dyno and new features on our slow-motion replay solutions. The Stratus integrated workflow from editing to playback was demonstrated to ensure the entire production ecosystem is addressed. Also on display was our flagship line of production switchers Kayenne and Karrera, LDX cameras and control units.

The Middle East holds huge potential for Grass Valley and one of the objectives of restructuring was to strengthen our presence there.

The new office is part of that operation with an innovative demo and training centre. We have already announced that we are hiring and will double our staff by next year.

We are targeting double digit growth in the Middle East by the end of 2013. We are investing quite aggressively in the region and as part of the same strategy, we are embarking upon a series of roadshows and events to introduce new products to the region.

Sports is a lucrative market from a broadcast point of view, while news is needed regardless of whether it makes money, and of course, entertainment is important traditionally. The industry is not without its challenges as we see a lot of consolidation happening, which will be the trend next year as well.

DAVID COHEN, Director, Marketing Communications, Miranda

Broadcasters have been debating whether or not the transition to IP will happen but with 4K, it seems pretty clear at this point that there’s no other way to get the signals through. We are preparing in haste to ensure we are able to deliver that.

Once the routers are able to support IP, that will open the door to further development.

The show this year was significantly different from last year, which marked the funeral for 3D and the beginning of 4K.

There’s more clarity now on the way forward, as we understand that higher bandwidths are here to stay. We would like to believe that there is a sort of interim between 4K and 8K. As long as the consumer electronics companies make their displays affordable, consumers will buy higher resolution content.
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KEVIN MOORHOUSE, COO, Gearhouse Broadcast
We just built a 30 camera HD truck for an Australian company. A lot of people can’t afford a 20-30 camera van and instead look for more cost-effective and compact solutions.

We exhibited our latest OB van at the Hitachi stand this time. It’s a cost-effective solution for broadcasters for smaller productions, costing between USD 15 or 20,000. The trailer houses eight cameras with EVS. This is something we would pitch to customers from the Middle East. We have seen a lot of interest from the Middle East for that unit.

At IBC this year, one saw an increased interest towards 4K. The technology is still very new and a lot of hype is being created around it. No one knows where this will end. We have invested significant amounts of money in HD, which was not long ago and cannot possibly take up another big investment in a new technology. This is the case with many companies today.

MATTHEW ROSENSTEIN, PR and Brand Director, Globecast
The feedback we got from the visitors at the IBC show was very positive. Although the budgets are still restricted, but the overall feel of the market is quite positives.

In the Middle East, HD is taking off incredibly. Interest in 4K is also growing but it seems distant as of now. Europe and North America are showing a lot interest in OTT solutions as a cost-effective way to get the content more audiences.

In the Middle East, in particular, more channels are being created and OTT is the next big thing as broadband becomes omnipresent. It is an attractive solution for broadcasters and an easy way to expand to new markets.

What broadcasters are looking at, above all, are simplified solutions, which are flexible. These solutions need to be tailored to their individual broadcast need and, more importantly, should be easy to deploy.

ANDREW WINTER, Director of Marketing, SGL
We have tried to transform workflows by placing the archive at the centre of the operation rather than at the end. The Notification Service takes the next step by allowing details about the archived material to be automatically pushed to a MAM or any controlling system integrated with SGL FlashNet.

LTFS is an open file system which can be written by any LTFS compliant solution on an LTO5 and above drive and read by FlashNet. Management of the archive is further enhanced by the addition of intelligent amalgamation services – optimising tape and tape-head usage. You either have content that can be reused or you are acquiring new content to process in many different ways. LTO makes it more flexible. It’s a trend that is beginning to be noticed globally as a very attractive way of streamlining production and processes.

The industry is increasingly embracing leaner and meaner systems to cut costs. Having said that, business is poised to grow as things are looking up for the broadcast industry.

SÉBASTIEN VERLAINE, Marketing Manager EMEA, EVS
In July 2013, we launched XT3 server in 4K concept. EVS offers the only server in the market with full 4K ingest and 4K playout capabilities. By the end of the year, we would be able to provide the server in three-channel configurations, which means, we will be able to ingest from two 4K cameras and playout. Ingest from one 4K camera and play out 4K on two displays.

We have expanded our C-Cast platform Xplore to deliver media from one server to the cloud offering remote browsing application that is fully integrated with the C-Cast technology. This enables broadcast professionals to remotely work from any location even for live productions.

We have a strong footprint in the Middle East, with huge installations in Qatar. We will be hiring full-time support staff to be based in Doha to offer technical support. We have been very closely involved in the Al Kass TV project since last year to manage their ingest and play out all of the content from different feeds.

ROBERT ROWE, Managing Director, Live TV, Snell
Snell is known for production switches, high-end converters, but we have huge installations of production and playout as well. The last 12 months have not been very easy for the industry but we have done well because we have quite a broad range of products and solutions.

We cover everything from file-based workflow management systems, media asset management, playout automation switches, and channel-in-a-box all the way to production switches and routers.

As a manufacturer, we are moving towards cost-effective, compact solutions, which has emerged as a major trend in the industry. Our new launches offer a big cost difference from their predecessors. We are offering a lot of features and capability in a much lower price bracket. These products are especially suited to the needs of big broadcast customers with smaller value channels and for the small broadcasters that don’t need the premium features that you get in higher end systems.

We have done live 4K events with Kahuna 360 during IBC. We did the French Open in 4K and there will be more productions coming up in the future to establish the technology.

A lot of things are coming together rather quickly with regards to production in higher resolutions. However, the transmission of content needs more work as delivery channels are not yet 4K ready. The industry seems to be gearing up for the big transition, but I see it happening as a slow progression. The adoption will vary from region to region and some genres, such as sports, will take precedence over others.
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**Conax goes cardless**

Conax announced a new cardless CA solution at IBC, thereby, expanding its Contego client portfolio. This means that Conax Smart Cards and Conax Cardless can seamlessly co-exist in an operator’s ecosystem. Now, operators can utilise a mix of smart cards and cardless clients to easily differentiate between the security demands for various types of content and consumers in diverse and growing business models. This is a key market differentiator between Conax and competing security solutions, which may require deployment of separate back-ends.

Conax will continue to guide operators to determine which type of content would best benefit from cardless or smart cards based on value of content, threat scenario and the required functionality.

Conax cardless is a conditional access product where the CA client runs inside a purpose-built secure area of the STB chipset instead of a physical smart card — providing hardware root of trust. The first chipsets to support the new Conax cardless solution for STBs is a family of chipsets from ALi Corporation. To enable rapid development of Cardless STBs, Conax and ALi offer a reference design where the Conax cardless security core is embedded. Conax will add support for other chipsets and continuously add functionality on an ongoing basis.

Explaining why Conax has added a cardless option, Tom Jahr, EVP Products & Partners, Conax, said, “Conax security solutions have always been software-based. We have chosen smart cards as a means to distribute and protect our software. This is the most secure way, and Conax has been and will always be extremely focused on security. Recent development in chipset technology has introduced STB chipsets with increased security to a level where we as Conax are comfortable. This has now enabled us to launch a cardless solution inside a purpose built secure area of the chipset - and under the Conax brand.”

**Mini AJA**

AJA Video Systems announced V2Digital, V2Analogue, HD10A-Plus and 4K2HD, new additions to its range of compact mini converters.

“More than ever, broadcast workflows routinely mix formats, which requires reliable hardware to ensure signal fidelity,” said Nick Rashby, President, AJA Video Systems. “AJA strives to address workflow bottlenecks so our customers are never without a viable solution. The new mini converters deliver affordable quality that bridges existing technology and provides fresh options for production professionals working in SD, HD and even 4K.”

4K2HD down converts 4K 3G-SDI to HD-SDI and HDMI 1.4 simultaneously, and is suitable for HD monitoring with 4K cameras. V2Digital and V2Analogue convert analogue video to digital and digital video to analogue, respectively, supporting HD/SD-SDI and YPbPr/RGB component or composite. HD10A-Plus facilitates the conversion of HD/SD 10-bit analogue to digital for HD and SD digital workflows. With full bandwidth component HD RGB, RGBS or YPbPr input, HD10A-Plus features three HD/SD-SDI outputs, SD mode support and sync input.

**Volicon develops intelligence**

Volicon has developed its Media Intelligence Platform to address media companies’ need for real-time enterprise-wide access to the broadcast product. Built on the technology supporting Observer video monitoring and logging product line, the Volicon Media Intelligence Platform streams live and logged video, complemented by valuable metadata, to any device at any time. With this innovative solution, media companies can leverage video, audio, and data for critical applications in areas ranging from engineering to the executive suite.

“Dramatic industry changes such as the transition to digital, the rapidly rising number of channels and outlets, the explosion in regulatory requirements, and the growing importance of data all make real-time access to the broadcast product and related metadata a significant benefit across the media enterprise,” said Russell Wise, Vice President of Global Sales at Volicon.

Providing a window on content delivered via satellite, cable, or over-the-air signal, as well as internet-based over-the-top (OTT) services, the Media Intelligence Platform offers portals tailored to the many different departments at broadcasting facilities. Far more than a logger or monitoring solution, Volicon’s Media Intelligence Platform provides functionality appropriate not only for engineering and operations, but also for production and promotions, new media, news, sales and traffic, media relations, and executive and legal departments.
VISIT INFOCOMM MEA 2013 and LEARN how you can APPLY professional audiovisual communications technology to TRANSFORM your business to meet rapidly changing market demands.

AV systems have become a necessary resource in many businesses, particularly with the convergence of AV-IT – from the traditional areas of Education and Entertainment, to Enterprise IT, Hospitality and Retail, Health Care, Transportation, and other Government Services. Effective information management and timely, impactful delivery of information to customers, colleagues and business associates are essential for business success in today’s highly networked and competitive world.

InfoComm MEA 2013 offers a platform for business owners, corporate IT and technology managers, engineers and systems integrators to check out latest AV technologies and end-user applications.

- See the widest range of Pro AV systems e.g. display media and imaging, digital signage, infotainment systems, command and control, video-conferencing and telepresence, and connectivity solutions from world leading brands.

- Hear experts give their insights on AV communications market trends and technology developments.

- Build your network of contacts for AV communications to enhance customer experience.

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Better glass from FUJINON

The new FUJINON ZK2.5×14 from Fujifilm Corporation offers a wide angle zoom covering 14-35mm focal length. It is the third lens for cinema cameras, equipped with a detachable servo drive unit. The ZK2.5×14 uses the highly adopted 35mm PL mount (from German Arnold and Richter Cine Technik) for cinema cameras. The lens offers high optical performance, compact body, and weighs only 2.9kg.

With the shift to high image quality video contents using 4K cameras for television productions, lenses with high optical performance for cinema cameras have been receiving a lot of attention. However, as the shooting method differs between cinema and television camera lenses, there are difficulties in operation of cinema camera lenses for television production.

The ZK series line-up now consists of wide angle, standard, and telephoto lenses. The ZK2.5×14 is a wide angle zoom lens with a focal length covering from 14 to 35mm, supporting both film and digital cinema cameras.

With the latest optical simulation technology and high precision large diameter aspherical elements, it has achieved both high optical performance and a lightweight compact body of 2.9kg. Thanks to high resolution from the centre to corner, high image quality without image distortion will be exhibited on the large screens of movie theatres.

Additionally, a macro function is also standard, allowing for the shooting of subjects as close as 33cm (distance from sensor to subject), expanding the range of the lens.

BFE improves broadcast

At IBC2013, BFE featured new and enhanced solutions for TV and radio broadcast applications. From scheduling, OB van control, MCR operations and management of contribution networks, the KSC product line handles the entire production chain.

Additionally, BFE demonstrated the integration of live video images into interactive switching circuits, providing users with the unique ability of previewing relevant channels before executing critical switching operations.

The control systems namely KSC Organizer, KSC Commander, KSC Manager and KSC Silknit – offer automation with flexible control, monitoring, and media handling required in today’s broadcast environments.

Sonnet does the Tango

Sonnet introduced the Tango 3.0 PCIe, a combination USB 3.0 and FireWire 800 PCIe adapter card. The Tango card provides users with a simple way to add USB 3.0 and FireWire 800 connectivity to Mac Pro and Windows computers with PCIe slots, and to Thunderbolt-to-PCI Express expansion chassis.

This Sonnet adapter can run bus-powered devices such as hard drives through each of its ports, and it is also backward-compatible with USB 2.0 and FireWire 400 devices.

USB 3.0, which offers a ten-fold increase in data transfer speeds over USB 2.0, has become a standard interface on Mac systems and most Windows PCs, as well as external storage devices. The Sonnet adapter provides four USB 3.0 ports: two external USB 3.0 ports and a 20-pin header for two internal USB 3.0 ports. The internal ports support panel-mount connector kits (sold separately).

Digital Rapids launches new multiscreen encoder

Digital Rapids introduced the StreamZ Live 4000EX encoder for advanced live and linear multiscreen applications.

The encoder is the newest generation of the vendors StreamZ Live encoder family for premium live and linear multiscreen encoding applications from over-the-top (OTT) services, IPTV head-ends, high-profile live event streaming and another applications.

“Watching live and linear content across a broad selection of devices is now firmly ingrained in consumers’ viewing habits, and their expectations of the quality and reliability of those viewing experiences are higher than ever before,” said Tony Huang, Senior Product Manager, Broadcast and Live at Digital Rapids.

“The StreamZ Live 4000EX enables content owners and service providers to exceed their audience’s expectations while providing a flexible platform that can easily adapt as market trends and technologies evolve.”

The StreamZ Live 4000EX is one of three new models introduced in the StreamZ Live family at IBC, including the StreamZ Live 8000EX and the StreamZ Live 6000EX.
Facilis brings TerraBlock 6.0

Touting a sleek new exterior and redesigned software interface, TerraBlock 6.0 by Facilis features several enhancements developed to advance usability, performance and collaboration, and to simplify user management.

TerraBlock is Facilis’ multi-platform, high-capacity shared storage solution that supports 8Gbps and 16Gbps fibre channel and 10Gbps and 100Gbps Ethernet through the Facilis shared file system. Augmenting collaborative workflows with support for industry-standard editing, colour correction and media asset management applications, the system provides flexible, high-speed, scalable technology with a lower cost of ownership.

“TerraBlock 6.0 is a testament to our ongoing commitment to advance TerraBlock for creative shops of all sizes,” said Shane Rodbourn, Facilis SVP/General Manager.

“Taking customer feedback into account, we were able to design an attractive and intuitive new exterior and UI for 6.0 that further simplifies shared storage. Facilis customers will now be able to devote even more time to what they love - the creative aspects of post production and content creation.”

Sony announces more cameras at IBC

Sony unveiled the HSC-300R/300RF and HSC-100R/100RF high-definition (HD) system cameras, and also introduced a new MVS series multi-format switcher called the MVS-3000A.

The new cameras build on the strengths of Sony’s existing HSC-300 and HXC-100 system cameras, incorporating 2/3-inch Power HAD FX CCDs for high-quality image capture with low noise. The HSC-300R/RF models are compatible with the HDLA series of large lens adapters, and equipped with neutral density (ND) and colour correction (CC) dual optical servo filter units, suitable for large-venue live broadcasts operated via outside broadcast (OB) vans. The HSC-100R/RF models are compatible with portable lens and good for regular studio use, while the MVS-3000A switcher supports features like ready-to-use digital multi effects (DME) and a wider choice of control panel configurations as compared to Sony’s existing MVS-3000 switcher. To better meet operational requirements across different venues, the new system cameras are equipped for digital triax (HSC-300R and HSC-100R) or optical fibre (HSC-300RF and HSC-100RF) transmissions.

TVU Networks ups the ante

The latest release of TVUPack introduces a number of new enhancements including superior low-latency performance, improved configuration control and deeper integration with satellite systems including BGAN, Ka-band and Ku-band satellites.

The TVUPack cellular uplink solutions feature one button operation, fast start-up, and unique dual encoding capabilities that give TVUPack the ability to simultaneously transmit a live video stream while separately recording the video in HD for store-and-forward. With TVUPack, field crews can maximise the use of available bandwidth from any source to ensure superior resiliency and picture quality, whether transmitting through the OB van or with the standalone backpack.

“TVU is known to deliver innovative IP-video solutions to broadcasters, and with this release we continue to push the boundaries of what TVUPack is capable of,” said Paul Shen, CEO, TVU Networks.

ABOX42 smart set-top box

ABOX42’s new M20 IPTV and OTT smart STB enables operators and service providers to deliver IP-based TV content and services, upgrade existing customers and create new business models. The M20 is powered by Broadcom’s BCM7241 high-definition IP STB platform and delivers a full suite of Internet-based frameworks and applications to support the delivery of IPTV and OTT content and services.

M20 complements ABOX42’s smart STB platform product series of M12 & B12 at the high-end as a fully compatible alternative depending on special applications and advanced requirements. The ABOX42 Smart SDK allows operators to ship both M12 and M20 in the same network based on the performance requirements.

Broadcom’s family of IP STB platforms enables advanced IPTV and OTT entertainment services in a compact, cost-efficient and high-performance package. Broadcom’s BCM7241 SoC allows ABOX42’s M20 set-top boxes to provide operators with an effective path to expand advanced HDTV interactive services such as networked DVR and browser-based applications. The M20 smart STB is designed for fast-moving OTT providers and cable operators who want to roll out interactive services and new business models based on the latest Internet technologies.

The new STB platform based on ABOX42’s smart STB SDK already supports over 120 OTT and IPTV applications like VOD-Services, Catch-Up TV services, online video recording, IPTV/OTT FreeTV as well as OTT pay-TV services and many next generation TV middleware integrations from leading suppliers. M20 offers short project cycles, short production lead times and includes lifecycle management, ongoing software maintenance and service updates.

“As global consumer and operator demand for OTT and IPTV services continues to increase, Broadcom is pleased to work with ABOX42 on solutions that allow service providers to quickly deploy new services based on the latest technology,” said Stuart Thomson, Broadcom Senior Director of Marketing, Broadband Communications Group.

“The accelerated development of ABOX42’s solution with Broadcom’s BCM7241 is a significant achievement in the quick deployment of high-performance IPTV and OTT set-top boxes worldwide.”

Autodesk Maya LT on a budget

Autodesk Maya LT 2014 is a new 3D modelling and animation tool tailored for independent and mobile game developers. Compatible with certain industry-standard game engines, Maya LT draws inspiration from Autodesk Maya software to bring an intuitive, affordable new toolset for the creation of professional-grade 3D mobile, PC and web-based game assets.

“We see indie game developers as a key part of the industry, driving innovative new production techniques and gameplay,” said Chris Bradshaw, Senior Vice President, Autodesk Media & Entertainment.

“The market is fiercely competitive, and Maya LT can provide indie developers and small studios with a powerful, yet simplified workflow for designing and animating remarkable 3D characters, environments and props – at a price that fits within even the most modest budget. It’s a practical solution that closely matches the needs of the mobile game development production cycle and helps developers rise above the noise and really shine.”
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Vislink leaner and meaner

The new Link L1700 wireless camera transmitter from Vislink is smaller and lighter than previous models. The L1700 enhances the modular design that’s made the Link series popular with broadcast professionals, creating a highly customisable transmitter that’s suitable for any broadcast task.

Frank Drudy, Vislink’s FPGA and Software Engineering Manager, said: “Link is a pioneer in the wireless camera market. Not only is the L1700 smaller and lighter than ever before, it’s also packed with a range of new features that confirm the position of Link’s wireless transmitter technology as a leader in its class. To stay one step ahead of the competition we have designed the L1700 system to support software upgrades, and because it’s modular design, users can add additional features when they become available.”

The L1700 builds on L1500, which was the first transmitter to have swappable RF modules and optional camera control. The L1700 is fully upgradeable and users can easily customise the transmitter to add new software and features, including web-based control over WiFi, HDMI input, ultra-low delay H.264 video encoding, video streaming over Ethernet and support for up to 1080P/60 video formats.

Cooke Optics presents the Metrology range

Cooke Optics presented the first two working production models from its Anamorphic/i range as well as the first production model in the new Cooke Metrology lens testing range at IBC.

The Anamorphic/i lenses, which are approximately the size of Cooke’s industry standard S4/i lenses, retain the Cooke look, are colour-matched with the Cooke 5/i, S4/i and miniS4/i ranges, and come equipped with the next generation /i Technology, /i Squared, to capture lens metadata.

Cooke’s new lens test projector is designed for today’s fast lenses and is so bright that it can be demonstrated in daylight, making it much easier to discern flaws and artifacts in fast lenses.

Clear-Com’s ICON connects

Clear-Com showcased its new family of ICON Connectivity Solutions at IBC. ICON is a collection of communications products that link local or geographically distributed intercom systems over Ethernet/IP networks and/or optical fibre. ICON, which stands for “intercom connectivity,” provides solutions for reliable and secure connections on common infrastructures and is also cost-effective for scalable multi-system networks.

“Today’s broadcast productions often involve multiple teams based in different locations, covering a single event or multiple events,” said Simon Browne, Director of Product Management, Clear-Com. “These teams can be situated in different buildings within the same vicinity or separated across a large distance. Despite the separation, teams must still be able to communicate seamlessly and in real-time, over one integrated infrastructure. The ability to link disparate communications systems and extend access of voice communications becomes highly critical. We are pleased to offer a full range of connectivity solutions to address these communication challenges. With the ability to interface with any Clear-Com or third-party intercom system, ICON solutions facilitate flexible, secure and cost-effective local and global intercom deployments.”

ICON connectivity solutions consist of communications products that operate over Ethernet/IP networks and/or optical fiber links. They work well with existing infrastructure and are adaptable to existing network quality and bandwidth. Network connections are secure and tolerant of outages.

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If you are serious about your career as a musician, DJ, or producer, or you like good sound, here’s something worth learning. A room with good acoustics is essential for recording and mixing your music. If you make music in a room with great acoustics, it has the best chance of sounding good in other rooms too. When it comes down to acoustical treatment; whether it is isolation soundproofing or room correction, no budget is too high. A few factors such as size, shape, angles of walls/ceiling, materials the walls are made from, and shapes of objects in the room have to be taken into consideration to optimise your listening environment.

Sound can be broken down into three elements when we are discussing acoustics: direct sound (waves that travel directly from the source to your ear), early reflection (waves that reach your ear by way of reflection off a surface) and reverberation (made up of sound waves that travel around the room reflecting from multiple surfaces).

If you are fortunate to have a choice of rooms, it is a good idea not to go for anything too large or too small. Large rooms will require more treatment as they have problems such as standing waves, nodes and huge amounts of reflection. Small rooms, on the other hand, will have issues with lower frequencies which will not have space to develop and cause mixes to not translate well to larger systems. Ideally, the shape of the room should not have right-angled corners as this will cause sound to reflect the same way light reflects off a mirror.

The listening position is also a very important aspect to take into consideration. The sound coming from your monitors needs space to develop. Therefore, it is wise not to position them too close to any walls. Try finding a location in the room that allows you to be facing the longer part of the space. This will give the low frequencies more space to decay.

The speaker’s position is sometimes overlooked here, but I cannot stress how important this easily-remedied-factor is in regards to stereo imaging and a better mix. When placing your speakers, you should be able to draw an equilateral triangle between the two speakers and your ears. The drivers of the monitors should be facing down the lines of the triangle and if they are higher than your ear position, they should be tilted downwards.

Once these simple factors are addressed, it would be time to begin thinking of the acoustical treatment which includes absorption and diffusion. Absorption is used when there is a lot of reflection taking place. This usually sounds like an echo or ringing in the room and typically affects the mid to high frequencies. These echoes or early reflections give the listener a hard time getting an accurate high-end mix. The idea of having absorption panels is to aim for approximately 70% coverage. Any more than that can yield a totally dead unrealistic space. Some reflection is a good thing and helps create a realistic stereo image and a more natural sound. However, reflections should not come off flat walls as this will give a horrible slap back delay. That’s when you need diffusors. These are used to “cut up” the sound into many different intervals. Diffusors are simple; usually just irregular shapes placed around the room.

Bass is the most difficult to address. As a rule of thumb, omni-directional low frequency energy tends to reside in the corners of the room, so placing bass traps from ceiling to floor in all the corners is your safest bet.

It is also a good idea to isolate your speakers from hard surfaces. This will do two things; prevent resonation of the surface and reduce the amount of low frequency transmitted into the walls, which drastically reduces sound travelling into other rooms. Either you can opt for a professionally made recoil stabiliser or simply place the foam your speakers were shipped in underneath.

Addressing a listening environment has more to do with common sense. Avoid standing waves, which occur when a sound reflects off parallel surfaces and then back into each other. The reason for this is when the reflected sounds meet, they begin to cancel each other out. This cancellation happens in different locations for different frequencies, so to avoid this, simply avoid parallel walls.

If that is not possible, which is usually the case, we must rely on acoustical treatment. In a nutshell, if you are able to subconsciously divide your sound into direct sound, early reflections and the reverberation, then you are clearly on your way to a better sounding mix. Addressing these issues with absorption panels, diffusors and bass traps will drastically improve your sound. To add that cherry on the top, make sure to isolate the monitors from a hard surface.

Bachar Hadai is the Founder of Bash Sound Inc. and an acoustic consultant based in Dubai.
Optimod-TV 6585

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