

Inter BEE

International Broadcast Equipment Exhibition

REVIEW 2012

Derivative JEITA Japan Electronics and Information Technology Industries Association

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International Broadcast Equipment Exhibition

Inter BEE 2012 (the 48th International Broadcast Equipment Exhibition) was held over three days from 14th to 16th November 2012, at Makuhari Messe in Chiba City with the backing of five government agencies and organizations and in collaboration with 30 other organizations.

This year we were able to gain the backing of the Ministry of Internal Affairs and Communications; the Ministry of Economy, Trade and Industry; and the Association of Radio Industries and Businesses for the first time in addition to the Japan Broadcasting Corporation and the Japan Commercial Broadcasters Association. The number of collaborative organizations increased by six and we were also able to count on increased support from related government agencies and organizations.

Now in its 48th year, Inter BEE welcomed a record high number of exhibitors to enjoy the latest audio, video and communication technology for professionals. Many Japanese and overseas companies and organizations pointed to the present and future by showing the potential of new media such as 4K and 8K ultra high definition television, second screen, and smart TVs; the effective use of radio waves including V-Low and white space; and new business models for digital signage and projection mapping.

Continuing on from last year, the Inter BEE Content Forum, tutorial sessions and the Technical Report Conference of Commercial Broadcasters delivered information in conjunction with the exhibition. In addition, the Cross Media Theater was newly established, allowing top creators and professionals working at the front line from Japan and abroad to demonstrate the diversity and potential of media contents. Sessions included the "V-Low Session", "IPDC Forum Symposium", "Asia Contents Forum", and "Pre Visualization Session."





Exhibitors Record high number of exhibitors took part

Companies leading the way in broadcasting technology across the globe were all assembled under one roof. A wealth of technology aimed at future business to follow the digital revolution was on display, presenting the new possibilities of broadcasting business.

Number of exhibitors:	871	(record-high) companies
Number of overseas exhibitors:	491	(record-high) companies

Trading Visitors

Visited by business users from diverse fields

In line with the expansion of exhibition categories, visitors from new fields took part in the exhibition along with existing visitor groups, and discussed new technology with exhibitors. Press coverage was also extensive, widely introducing the exhibition both in Japan and abroad.

> Registered visitors: **31,857** Number of news media representatives: **343**

International

Leading-edge technology under the global spotlight

In addition to interest from abroad in the 4K/8K technological revolution, there are now signs of next-generation broadcasting technology developed in Japan, such as One-seg broadcasting and IP data broadcasting, being adopted in emerging countries.





Sound that resonates in the heart is reproduced with technology

Many visitors were able to experience firsthand digital audio workstations and IP technology. On display was equipment that can be easily used in a variety of workplaces, and new products that meet needs for product downsizing and lightening as well as cost reduction.

■Audio Equipment

Microphones, Recorders, Digital Audio Workstation, Consoles, Mixers, Mastering Equipment, Audio-compression/Transmission technology, Converters, Effectors, Amplifiers, Processor, Equalizer, Interface, Speakers, Players, Audiometer, Loudness-related Equipment, Acoustic design/control, Audio Equipment for Movie Theater and Commerce Facility, PA system, Live Sound System, Professional Electronic Musical Instruments, Computer Sound System, Headphones, Headset, Intercoms, Transmission Cables, Accessories, Power Supply, Racks/Cases/Bags, Other Related Peripheral Equipment

Production & Post-Production Creativity evolves seeking further value

4K video production technology attracted the most interest as well as cameras that stood out for their original technology. Workflows ranging from highly-versatile filming to editing and exporting attracted a lot of attention.

Production

HDTV Systems, Studio Cameras, VTR-Pack Cameras, Camcorder, 4K Cameras, Digital Cinema Cameras, 3D Cameras, Crane Cameras, Lenses, Other Related Peripheral Equipment, Video Servers, File Server System, DVD Systems, BD Systems, VTRs, Memory Cards, Memory Devices, Optical Disks, Video Tape, Data Compression Technology, Video Monitors, Multiple Monitor Displays, Projectors, LCD/PDP/LED/OLED Displays, Prompters, Other Related Peripheral Equipment

■Post-production

Editing Devices, Switchers, Routing Switchers, Non-linear Editing Systems, Visual Effects, Color Correction, Painting Systems, Subtitler, Title Production Systems, Character Generators, Composite Systems and Software, Media Converter, Encoders, CG Production Systems, Animation Production Systems, Virtual Studio Systems, Motion Capture Systems, Software and Systems, Content Management Systems, Systems Integration Technologies, Database Technologies, Storage Equipment, Archive Systems, Other Related Software and Peripheral Equipment

Professional Lighting

Expressions and communication in light

There was a collection of the latest lighting systems facilitated by expanded LED lighting systems. Also demonstrated were solutions enabling collaboration between video and audio for the performing arts and entertainment.

Lighting Equipment

Studio Lighting Equipment, Stage Lighting Equipment, TV Studio Lighting Equipment, Film and Video Lighting Equipment, Lighting System for Photography Studios, Lighting Control Systems, Lighting Control Board, Console, Dimmer, Wireless Remote Control Devices, Effect Lighting Equipment, Searchlight, Large-scale effect lighting, Projectors, Projection Mapping, Video Mapping Techniques, LED, Strobe Lights, Elevating Unit for TV Studio Lighting Battens, Wiring Device, Cables, Other Related Peripheral Equipment

Distribution & Delivery Information communicated in a variety of ways

4K content distribution technology attracted a lot of attention. There were also future business presentations including a host of data transmission services and introduction case studies.

Output and Transmission Systems

Automatic Program Output Systems (TV&radio), Automatic CM Output Systems(TV&radio), Server Systems, IT Solutions (broadband systems), File Systems (Audio), File Systems (Video), Graphic Libraries System, Film and Telecine, Graphic Systems, External Information Response Systems (weather, Stock, Traffic information etc.), Base Station Facilities, FPUs, SNG, OB Van, Automotive Related Systems and Peripherals, Communications Radios, Emergency News Systems, Terrestrial Television Broadcasting, One-segment Broadcasting, White Space, One-segment local service, V-High and V-Low Band, Multimedia Broadcast, Radio Broadcasting Equipment, FM Broadcasting Equipment, Satellite Broadcasting, Cable Television, Video Delivery Networks, CDN, Transmission Cables, Wireless Systems, Fiber Optics, Other Related Peripheral Equipment

Broadcasting Equipment

No-break Power Units, Constant-Voltage, Constant-Current Regulated Power Units, Automotive Power Sources, Battery Packs, Battery Charger-Discharger Equipment, Test Signal Generators, Measuring Equipment, Signal Converters, Other Related Peripheral Equipment, Cabinets, Racks, Pedestals, Camera Tripods, Camera Platforms, Cranes, Steadycams, Furniture, Camera Carrying Cases, Other Related Peripheral Equipment, Development Languages, Semiconductors, Components, Development, Manufacturing, Studio System Design, Construction, Maintenance, Dispatched Engineers, Related Books, Music Libraries, Related Software/Service, Consulting Services

Cross Media

Next generation technology in media assembled

Second Screen demonstrated the potential of new broadcasting business by linking TVs and smartphones/tablet PCs. CG and VFX productions were exhibited and more creators took part in 2012.

■IPTV / Internet Delivery

Video Compression Techniques, Video Editing/Control Systems, Video Delivery Systems/Services, Data Broadcasting Systems, Video-on-demand Systems, Internet Broadcasting Systems, Software, Other Related Techniques/Products/Services

■Mobile TV

Video Editing Systems For Mobile, Video Delivery Systems For Mobile, Mobile Contents/Applications, Mobile Terminal Equipment, Wireless Systems, Wi-Fi/WiMax, LTE, Other Related Techniques/Products/Services

Digital Cinema

Digital Cinema Filming Systems, Digital Cinema Editing Systems, Digital Cinema Delivery Systems, Digital Cinema Servers, Projection Systems, On-demand Services/Contents, Other Related Techniques/Products/Services

Digital Signage

Digital Signage Editing/Control Systems, Image Receiving Systems, Video Content Delivery Systems, Communication Network Services, Advertising Media Services, Other Related Techniques/Products/Services

■3D Image

3D Image Output Systems, 3D Image Editing Systems, 3D Image Receivers/Terminals/Systems, 3D Screening Systems, 3D Contents, Other Related Techniques/Products/Services

Next-generation Video Technology

4K, 8K Displays, Glasses-free 3D Technology, Motion Sensor Systems, Interactive Systems, Virtual Realities, Augmented Reality, Panoramic Image, High-Definition Surveillance Video Systems, High-Definition Medical Image Systems, Other related techniques/products/services

Digital Contents

Live-action Contents, Animations, Computer Graphics, Other Related Techniques/Products/Services

Forum & Symposium

Latest trends shared and responses to a variety of needs

Forum and symposium content featured case studies using leading-edge technology, an introduction to next-generation broadcasting technology and overseas industry trends. Additionally, creators from Japan and abroad, responsible for originating new forms of entertainment, gave business pointers to users from a wide variety of fields

■Conference

Inter BEE Content Forum, Inter BEE Tutorial Sessions, Asia Contents Forum, Cross Media Theater

Simultaneous event

49th Symposium of Broadcast Technology

Outline

Name

International Broadcast Equipment Exhibition 2012 (a.k.a. Inter BEE 2012)

Period —

Wednesday, November 14th - Friday, November 16th (3 days)

Exhibition hoursNovember 14th and 15thNovember 16th10:00 a.m. to 5:30 p.m.10:00 a.m. to 5:00 p.m.

Location —

Makuhari Messe 2-1, Nakase, Mihama-ku, Chiba City, Chiba Prefecture 261-0023, Japan

Organizer

Japan Electronics and Information Technology Industries Association

Supported by —

Ministry of Internal Affairs and Communications (MIC) Ministry of Economy, Trade and Industry (METI) Japan Broadcasting Corporation (NHK) The Japan Commercial Broadcasters Association (JBA) The Association of Radio Industries and Businesses (ARIB)

Partners -

ALL NIPPON PRODUCERS ASSOCIATION Association of Media in Digital Camera & Imaging Products Association Digital Cinema Consortium of Japan Digital Content Association of Japan Digital Signage Consortium IPDC Forum JAPAN AD CONTENTS PRODUCTION COMPANIES ASSOCIATION Japan Association of Audiovisual Producers, Inc. Japan Association of Lighting Engineers & Designers Japan Association of Professional Recording Studios Japan Audio Society Japan Cable and Telecommunications Association Japan Cable Television Engineering Association JAPAN POST PRODUCTION ASSOCIATION Japan Satellite Broadcasting Association JAPAN STAGE SOUND BUSINESS COOPERATIVE Japanese Society of Cinematographers JSL Mobile Broadband Association

Mobile Broadband Association MOTION PICTURE and TELEVISION ENGIREERING SOCIETY of japan, Inc. National Theatrical & Television Lighting Industrial Cooperative Specified Radio microphone User's Federation Stage Sound Association of Japan The Association of Japanese Animations Theatre and Entertainment Technology Association, Japan 3D Consortium Ultra-Realistic Communications Forum VFX-JAPAN Visual Industry Promotion Organization

Global Partners





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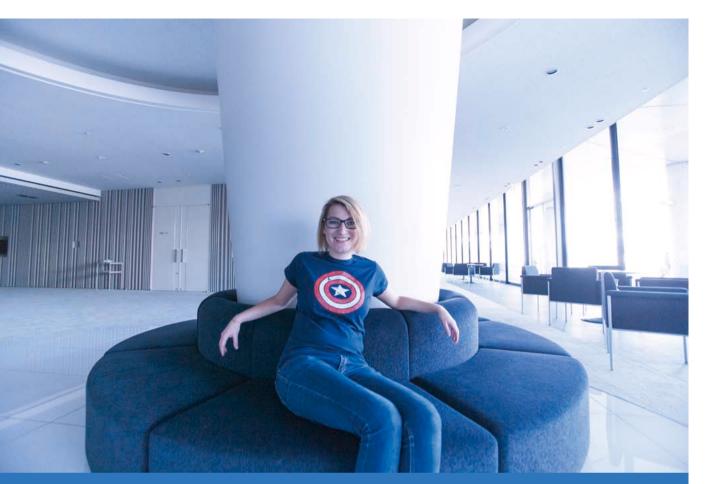
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A belief in spirited production that continues to grow and expand through awe-inspiring VFX

Ms. Zoe Cranley OUBLE NEGATIVE SINGAPORE CG Supervisor

> Interviewer **Takashi Yuki** Director of Asia Contents Forum



Devotion to details and human resources leads to high-quality images

Double Negative has worked on VFX for numerous Hollywood blockbusters such as "Harry Potter and the Deathly Hallowes", "Iron Man 2", and "The Dark Knight Rises". The company specializes in minute and photo-realistic VFX that could be mistaken for on-the-spot filming, and its production has earned an excellent reputation including winning an Academy Award for visual effects with "Inception".

The company was established 14 years ago with 30 staff. It has now grown to a company with a workforce exceeding 1,000 people, and expanded into Singapore in 2009. Currently working on over 10 major movies, it continues to gain momentum.

What is the reason behind Double Negative's success and why Singapore? These are questions we asked one of the company's CG Supervisors, Zoe Cranley.









Double Negative was established in 1998. It started out as a post-production studio based in London's Soho, a place with a large concentration of CG productions. At the center of this was Matthew Holben (CEO) as well as Alex Hope (MD), who was working at a different studio at that time. Their goal was to work on movie VFX, and the first movie they were involved in was "Pitch Black".

The company then steadily expanded but the real turning point was its involvement with the Harry Potter movie. This revitalized the VFX industry itself in London and led to the major growth of Double Negative. In fact, while the company had a staff of 150 people back in 2005, it has now expanded to a company of over 1,000 employees. It then expanded into Asia in 2009 and opened an office in Singapore. Led by Dneg's Creative Director, Nathan McGuinness (former Head of Asylum VFX), Dneg Singapore works seamlessly with Dneg's London office on such major releases as Bourne Legacy, Total Recall, Les Miserables and Cuban Fury.

Ms. Zoe says there are two things behind the rapid progress of Double Negative.

"The first is quality. Whether its match moving, modeling, texture or lighting, we are among the best in the world. This is because we have an artist's eye and are governed by the idea that if we notice an insufficient cut we correct it. To create images that people find realistic, it is vital to focus on fine and subtle details, such as small spots in people's eyes and how a building will explode."

This leads to quality production and also builds up the reputation of the studio. The company has also focused its efforts on technical work and R&D, and one of its strengths is developing software in-house. It has created a pipeline based on software such as Maya and RenderMan, but the lighting and shooting is fluid simulation in-house. "The other one is people. Using talented and experienced artists is

crucial. We want them to work for the company long-term rather than just a single project. In fact, we have a lot of people who have worked for the company for over 10 years. Of course, we also welcome people without experience and have provided a place to nurture talent such as through the organization of career programs."

Focusing on both human and technical aspects has given rise to finely-detailed images that cannot be imitated by competitors.



Company growth by nurturing brilliant artists

Ms. Zoe, who is currently working as a CG supervisor, joined the company after graduating university and has worked her way up from a junior position.

"I loved art, mathematics, science and computing. I thought that VFX would let me do all of those, but there weren't any many universities at that time offering such courses. Bournemouth University had a well established course on computer animation and visualization so it was a perfect choice."

It was through taking lectures at university that Ms. Zoe got to know about Double Negative. That's because Bournemouth University has a close relationship with the movie industry and people inside the industry gave lectures there. Also, the fact that Double Negative gives opportunities to new graduates in an industry where mainly experienced workers are hired was a key reason behind her joining the company.

Ms. Zoe joined the company in 2005

and got involved in basic parts such as technical assistant, render assistant, and match moving, and progressed to her current post through the positions of technical director, lighting director, sequence leader, and sequence supervisor. She claims to have learned by constantly taking on new challenges.

My first role within Dneg, which was a great experience was working with the render farm as a render assistant. Working day and night shifts was tough, but I got to know a lot about the backbone of CG with the film vfx industry. Also, by experiencing various parts working on different shows and different departments , I was able to grasp the basics and got to know from an early stage the VFX supervisors I'm currently working with."

A strength of Double Negative is that it values artists. It nurtures people with passion and talent and provides an environment for them to work at the company for as long as possible. It holds training classes and has a system whereby younger workers are supported by senior level "buddies" . This is said to be behind the non-stop creation of videos that only Double Negative could produce.

It has also led to the development of generalists, which has greatly contributed to the growth of the company.

"Even if we employ a brilliant artist, if that person can only do modeling work then they will only be involved in the initial stage of the project. If that person can do texture and lighting work, then they will have a long-term involvement in the job. Of course we have specialists, but the reason the company has been able to expand steadily is because we have many generalists."





Aiming for a more exciting market and acquisition of new staff

As Double Negative continued to expand while nurturing brilliant personnel, it cast its eyes to Asia or more specifically, Singapore. Three objectives were behind this: "expanding outside of London"; "entering the Asian market"; and "discovering new artists".

VFX is not an industry tied to a specific place and can be performed anywhere. Several studios such as ILM have opened branches in Singapore and its One-North district is becoming a vibrant area similar to London's Soho of yesteryear.

Moreover, having an office in the future economic powerhouse of Asia is also a significant factor.

The most typical reason for this move, as far as Double Negative is concerned, is that it fits their approach to human resources. In other words, attracting artists with a cultural background unique to Asia will generate new and original video and stimulate existing staff.

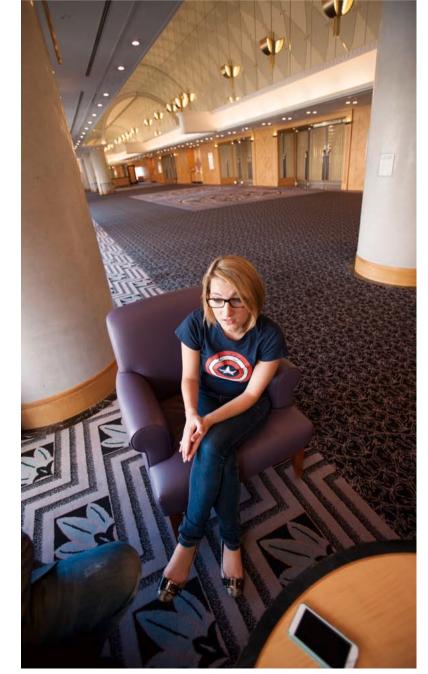
"Hollywood wants diverse and new approaches on areas such as how to express ideas. Having face-to-face discussions between people from different cultures enables a variety of interesting ideas and approaches. It has been 11 months since I moved from London to Singapore and some really excellent people have joined us from the Asian region including Singapore. They see things in a totally new way to me and their attention to detail is second to none."

Because the most important thing to artists is creating, Double Negative employs people even if English is not their first language. Their bold way of thinking is that as long as the results are good, language barriers are irrelevant.

"No country is dominant and we all work on completely the same terms. What's more, we have staff from at least 30 to 40 different countries, so the office is really lively (laughs)".

A The number of staff in the Singapore office is currently 170 people, which is virtually the same number of staff at Double Negative when she joined. Ms. Zoe says that the reason she moved to Singapore is because she "wanted to share her experience with others". 'During my early days at DNeg, I got the opportunity to learn from very talented and experienced senior members of the team. I'm now enjoying doing the same thing for junior artists here in Singapore . I get a real buzz from nurturing new talent as well as continuing to learn from all the other very talented artists and supervisors we have here in Singapore. It's a very vibrant and fruitful place to work and an exciting time for us as we are forever expanding and growing our knowledge base."





Inter BEE Review 2012 Topics Guest Interview 2

New collaborative partnership between Inter BEE and SET Broadcast and Cable to further strengthen the Japanese and Brazilian broadcasting industries

The Japan Electronics Show Association (JESA) has formed a collaborative relationship with the Brazilian TV-related academic society, 'SOCIEDADE BRASILEIRA DE ENGEN-HARIA DE TELEVISAO (SET)', and 'Certame Display Montagens e Locacao de Equip. S/C Ltda', the company managing the 'SET Broadcast and Cable' Brazilian broadcasting and communications equipment exhibition.

The three parties will provide each other with information on exhibition and academic society conferences in the future and help to notify such information to people and organizations in the industry of their respective countries. Specifically speaking, they will translate information into their own languages and mutually create press releases and advertisements, and exchange booths.

On November 14, the first day of the Inter BEE 2012



exhibition, a signing ceremony was conducted at the International Conference Deluxe Suite of the exhibition venue, Makuhari Messe. The ceremony was performed by SET President, Mr. Olimpio José Franco and JESA Director and Secretary General, Takashi Ohyama.

Mr. Olimpio José Franco

President, SET

■ "20-year relationship of trust between both countries built through ISDB-T"

The SET President, Mr. Olimpio José Franco, who came especially to Japan for the signing, spoke as follows about this tie-up.

"This is my first visit to Inter BEE and I'm very pleased because I have been able to meet Japanese and other foreign colleagues. Being here has reminded me of the international



nature of the Inter BEE exhibition."

The Brazilian TV engineering academic society, SET, has been established for 24 years as of 2012. It is a non-profit organization but members include TV studios and manufacturers as well as participants from academic fields. Its many activities include holding conferences five times a year in Brazil as well as conferences in the U.S. It is also actively involved in international exchange, participating frequently in NAB (U.S.) and IBC (Europe) sessions.

SET also has a long history of exchange with Japan. It has exchanged information on the standardization of terrestrial digital broadcasting with Japanese manufacturers, engineers and researchers for over 20 years. Via close information exchange over a long period, the ISDB-T Japanese terrestrial digital broadcasting standard was adopted as the base of the Brazilian terrestrial digital standard. In recent years, the "Brazil-Japan DTV Promotion Symposium" (hosted by the University of São Paulo) has been held on an annual basis since 2010 by Japan and Brazilian broadcasting and communications engineers and researchers, and Liliana Nakonechnyj gave a lecture last year when she was still the President of SET.

"Development of a closer relationship in the broadcasting market"

Mr. Franco spoke with anticipation regarding the partnership between these three companies.

"The relationship between our countries has become very close. A wealth of information has been exchanged and shared over the past 20 years on standardization. We have learned a lot from Japan and I feel that by exchanging this memorandum, there will be extra opportunities between our countries. I hope that it will yield results quickly."

"When we asked Japanese companies as well as the Japanese embassy and consulate to participate in the Brazilian exhibition last year, we got a response from many companies. We got some basic questions regarding marketing and promotion in Brazil, showing many companies are interested in the Brazilian market."

Hideichi Tamegaya, a professor at the Graduate School of Joshibi University of Art and Design, participates as a member of the steering committee of the "Brazil-Japan DTV Promotion Symposium", where he introduces Japanese broadcasting technology and invites symposium speakers from Japan. Mr. Tamegawa assesses the significance of this collaboration as follows.

"Because Brazil is a very distant country geographicallyspeaking, movement and transfer is seen as burdensome and there wasn't a very strong connection between our countries in terms of broadcasting and communications. However, since Japanese ISDB-T has been used as a Brazilian digital broadcasting standard, Japanese associated companies have started to frequently visit Brazil to participate in exhibitions and conduct business, and my impression is that Japan is now extremely close to Brazil".

"Several Japanese manufacturers are already active in Brazil, and I believe that Japanese companies play a large role at the SET exhibition. A Japanese pavilion was created at this year's event, which I think will lead to a wide variety of tie-ups. I hope that collaboration with SET in the future will bring the industries in both countries closer together".

"Wisdom of both countries and time are vital for development of next-generation broadcasting technology"

Mr. Franco also showed an interest in the technologies of Japanese manufacturers at the exhibition venue. He maintained a cautious stance about the possibilities of introducing new media at the coming 2014 FIFA World Cup and 2016 Rio de Janeiro Olympics.

"Brazilian growth has continued for 10 years, but it now has to solve infrastructural problems. Communications infrastructure is still inadequate and there is a lot to do as far as road network and airports improvement is concerned. While there are a lot of problems to overcome, at the same time I believe there are a lot of opportunities."

"I think that Japan really possesses a lot of advanced technology. This goes for audio and video, but I feel that there is some highly precise filming and recording related peripheral equipment. I am also interested in 4K and super hi-vision technology. I believe that technology is undoubtedly heading in that direction for the near future.

"The major events of the World Cup and Olympics may be an opportunity to apply such new technology. We must therefore think about economic validity, rights handling, and business structures in addition to technology, and I believe that entering into closer discussions is required to achieve that."

"I think that financial investment should be handled over time carefully, step-by-step. International standardization and various definitions are necessary and it should take 10 years to evolve via announcements at demonstrations and seminars, and meetings such as academic conferences and briefings."

"Future technology will require such procedures, but first I would like current Japanese technology and products to participate in our exhibition. By doing so, there will be chances to meet a wide spectrum of clients and customers at the venue and exchange various ideas. I very much hope that small and medium sized companies from Japan will be able to take part."



Inter BEE Review 2012 Topics **Guest Interview 3**





seen walking energetically around the venue in his time off from having meetings with associates and giving lectures.







Using the World Cup and Olympics to popularize terrestrial digital broadcasting

Brazil will be holding the FIFA Confederations Cup in 2013. the FIFA World Cup in 2014, and the Olympics in 2016. Needless to say the country wants to use these major events to popularize terrestrial digital broadcasting, and researchers including Dr. Zuffo believe that it will provide an opportunity to showcase new technology.

Watching with astonishment at the advancements of 4K/8K at Inter BEE, Dr. Zuffo says, "I got the impression that 4K related products will increase and that we are on the verge of a new market. I also got glimpses of 8K wherever I went." He says that he hopes Japan and Brazil will work together on the production of contents using such technologies at the two major soccer events and the Olympics. He praised Japanese efforts, saying, "I want to express my utmost respect to all manufacturers that have advanced 8K in connection with the NHK Science & Technology Research Laboratories. I'm glad I came again this year."

All eyes are on IP data transmission as a disaster-time information delivery method

The South American region is subject to a variety of natural disasters, and Dr. Zuffo says that broadcasting plays an extremely important role from a civil defense perspective. Talking about the importance of transmitting warnings via broadcasts, he says, "Brazil lost a lot of people only recently to flooding and Chile sustained damage from a tsunami caused by the earthquake in 2010. It is broadcasting that can simultaneously send important messages at times like these." At Inter BEE there was an exhibition of IP data broadcasting and this was of particular interest to Dr. Zuffo as "something that connects the worlds of communications and broadcasting." This broadcasting received attention as a new platform to transmit information to protect people's wellbeing rather than simply something that will enhance broadcasting content. Musing about the way it should be used, Dr. Zuffo says, "Transmitting information loaded on IP packets via digital broadcasts would be an efficient way to send information in emerging nations where broadband is still not fully developed."

Fixing his attention on the course of adoption in emerging nations, he says, "there will surely come a time when tablet PCs can be picked up cheaply. If One-seg and IP data broadcasts can be received via a tablet PC, digital broadcasts can be delivered to those groups unable to afford digital TVs."

Inter BEE is a place for new encounters and reunions"

Another reason for Dr. Zuffo never missing Inter BEE is the opportunities it provides for "new encounters". He says, "Inter BEE is an exhibition teeming with new innovations in a physical form, so it gives me a great buzz just to touch them. Plus, my friends from across the world come so it's a great chance to meet up with them again." He also says that, like other exhibitions, it's not too big and it hasn't been totally taken over by marketing. He sees it as the perfect event to glimpse the future of broadcasting and contents. He says, "Academic exhibitions on Japanese and Brazilian technology have cemented friendly relations. I hope that both countries will deepen their collaborative partnership for next-generation broadcasting technology." And with those words, Dr. Zuffo left on the late-night flight back to Brazil.

Bringing every day to the theater

Mr. Daisuke Suzawa Producer P.I.C.S Co., Ltd. **Mr. Teruhisa Uchida** ETC PIGI JAPON DIV. SC Alliance Inc. Media Entertainment **Mr. Daisuke Moriuchi** Chief Producer Planning Development Center, Head Office NHK Enterprises, Inc.







Using revived Tokyo Station as a giant screen

"Tokyo Station City" is a train station redevelopment program undertaken near the Marunouchi Central Exit of the Tokyo Station that started in 2007. An event called "TOKYO STATION VISION" was held on both 22nd and 23rd September to commemorate the completion of the program's most eye-catching work – the preservation and restoration of the Tokyo station redbrick building. TOKYO STATION VISION" was a large-scale projection mapping event using the entire restored redbrick station building as a screen.

Projection mapping refers to elaborately designed projection that treats a building or something similar like a screen to reflect images onto it and use visual tricks to make the building itself look like it is moving dynamically. This event attracted a lot of visitors and attention because the station building itself looked like it was really jumping and lyrically drawn images were reflected. However, these were achieved after an unimaginable amount of effort....

At the "Asia Contents Form Special Session," this project's Producer and General Director, Daisuke Moriuchi; the Technical Director, Mr. Teruhisa Uchida; and the Director, Mr. Daisuke Suzawa, spoke passionately about the project's concepts and technical aspects as well as the future outlook for projection mapping.

We wanted to try our hand at an unexplored project. But "work was in progress" at the site....

The red-bricked Tokyo station building was created by *Kingo Tatsuno*, who worked on many buildings such as the Bank of Japan's head office. The station is a historical building built 98 years ago, but part of it was burned down in an air raid during the war, and it had been managed up to the 21st century with makeshift repairs.

As a part of the station's redevelopment by the East Japan Railway Company, a project to restore the station building to its original form got underway.

Upon discovering that the redeveloped station building would open in October 2012, after many years of work, Mr. Moriuchi proposed a projection mapping event to the East Japan Railway Company to commemorate this event. This took place back in April 2011.

"Because we were dealing with the restoration of an historic building, this was really the chance of a lifetime. I felt that projection mapping could be an interesting way to promote the regeneration and development of the station building."

Talks went smoothly and the work was scheduled to start at the end of September soon after station building restoration work was completed. This period was chosen because the building was due to open the following month and the Tokyo Station Hotel built inside the building was to open for business at that time. The light coming from the hotel windows would hamper the projection map. Therefore, the event took place in the short period just after the work finished and right before the building opened.

However, there was one problem with this timing. Because the event was due to be held straight after completion of the building work, preparations had to be made while the work was ongoing. Projection mapping doesn't simply mean installing a projector. Various complex problems have to be cleared such as where and how to install the dozens of projectors and then establishing images. At the site where the work was taking place, places to set up the projectors had to be explored and then the projectors had to be actually installed and tested. It was also necessary to explore places and viewpoints where the audience could see the most

beautiful images. The building itself had not been completed, so it was not possible to focus closely on intricate images.

The Technical Director, Mr. Uchida, said "We conducted tests when it was raining in July. The station building is a dark-red brick building, so we found that a lot of illuminance was needed for the projected images. We used a 35,000 lumen projector, but to be honest the effect was not what we wanted, so weren't sure whether to go ahead or not."

They wanted to achieve 100 lux of illuminance on the project plane, but it was necessary to combine several projectors to achieve this. Also, due to spatial circumstances in the premises and the fact that projectors had to be located 77m from the project plane, it was necessary to calculate how many projectors were needed to get that illuminance and cover the entire station building.

There were many hurdles that needed to be physically cleared such as the number of equipment that can project either in 16:9 or 4:3, and the number of projectors that could actually be secured.

Eventually, the foundations were put in place by projecting images in ten sections of two rows and securing 46 20,000-lumen projectors.





Difficulties of using the restored building as a screen

With projection mapping, images must be created in line with the building that will act as the screen. Mr. Moriuchi said that the most important thing, therefore, was to first decide on the format.

For this project, images were produced to overlap with the Tokyo Station building, which had been created by CG based on design drawings. A projection experiment was then conducted using a 1:200 scale model. In the case of animation, things seen on a screen and things projected as a three-dimensional object create a very different impression. If a projection experiment using a 1:200 model is not conducted with a firm grasp of spatial concerns, then good images will not be created.

However, this presented a variety of problems. The design drawings and actual Tokyo Station building were very different.

"A 3D scan of the building was necessary rather than basing the images on drawings, but that could not be done because the station building itself was under construction. In the end, images were created based on drawings, and minor adjustments were made to the final results while making adjustments at the station itself" (Mr. Suzawa).

Adjusting the colors was also hard work. The black, white and red were disordered - black roof, dark-red brick wall, white wall joints and white window frames and curtains.

"Thanks to the red brick and white joints, it looked stripy ruining its stereoscopic effect. So we assembled a team to create a color collect program." (Mr. Moriuchi)

"Specifically, we created a color mask to make red parts brighter and white parts darker. This was done with AfterEffects." (Mr. Suzawa)

In addition, other problems were discovered two weeks before the event, such as colors changing when projected and the CG looking unnatural; conversely, when the content was too detailed. "Near-4K images were created at a frame rate of 29.97fps and they had to be revised. Other things happened like the creator losing interest and going home." (Mr. Suzawa)

What images should be used? The significance of the project

Now that the *"TOKYO STATION VISION"* project had overcome a variety of difficulties, a lot of thought also went into the expressed images.

Considering that the station is Japan's main terminal station, Mr. Moriuchi initially envisaged images that would unravel the station's history spanning from its national railway to JR history. Famous trains and the development of the station's surrounding area were also considered. However, as discussions with the East Japan Railway Company progressed, talk turned to content that would "appeal to many people of all generations", so they aimed for something that everyone would enjoy and entertainment that would show what projection mapping means.

Based on the idea that Tokyo Station has many different faces as far as



commuters are concerned, it was decided that five filmmakers would be given carte blanche to contribute their own film. The only theme they were set was a "journey through space and time."

Mr. Moriuchi and Mr. Suzawa based the selection of the artists themselves on the following criteria: "someone who can put their own hallmark on the work" and "someone who can not only direct but also create a film themselves and adapt to sudden changes in circumstances." They selected Mr. Isao Nishigori (SMALT), Mr. Masatsugu Nagasoe (N E W), TAKCOM (P.I.C.S.), Mr. Takumi Shiga (caviar), and Mr. Yuki Hariu (P.I.C.S.).

Based on the ideas contributed by these five men, Mr. Moriuchi took charge of overall direction until the five works were completed, but this was not the end of the job. There was still the major task of putting the five works together into one coherent film.

"It's an event so of course it's necessary to provide some excitement. It's not the same as watching a film in a device. Because it's experienced spatially, it's kind of like the theater. Using musicals as a reference, we thought the event should have a beginning, middle and end. We also applied this to the music."

Mr. Moriuchi believed that the power of music was needed to put the five works together. Mr. Taisei Iwasaki who has excelled as a movie score composer for movies such as "*Moteki*" was chosen to be the music director. The spatial film, "TOKYO STATION VISION", was therefore completed with sound effects. Looking back at the project, Mr.

Moriuchi speaks as follows.

"Projection mapping, in a word, is really difficult. If it is done just as a visual gimmick, then it's nothing more than a show. Personally speaking, I want to focus more on the fusion of technology and culture. Combining historic buildings and regional culture with projection mapping allows people to become more familiar with and to rediscover their local area. I hope that such rebranding will contribute to regional revitalization in the future."





Inter BEE Review 2012 Topics Guest Interview 5

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"Video Technology Exchange Meeting" where video production professionals from various disciplines get together

Community problem-solving in the middle of a digital technology revolution

Information-exchange taking in a wide variety of opinions

As a trial initiative at Inter BEE 2012, a rest area with a "Technology Exchange Café" was provided for the first time for the "Video Technology Exchange Meeting".

The "Video Technology Exchange Meeting" is a gathering of video production professionals exchanging experiences and knowledge gained on-the-job in relation to rapidly progressing and changing video production technology. It has over 60 members.

Since it was established last year there have been six meetings. In addition, proposing ideas for themes and exchanging information in real-time is carried out energetically via SNS. The main themes handled previously include 4K, Thunderbolt, and Color Correction. Information-exchange and review meetings have been held on specific products. There is a wide variety of participants including post-production editors and colorists, filming and lighting engineers, and CG and VFX artists. A characteristic of this meeting is that it differs to private showings held by manufacturers or user groups for specific tools because users with diverse views get together to exchange a wide variety of opinions.

One of the founding members of the 'Video Technology Exchange Meeting', Mr. Shinichi Ishikawa, a MotionWorks VFX Artist, says "it was established to promote a closer relationship between filming location and post-production professionals". Communication is actively carried through SNS and there was apparently a gathering of approximately 20 people in July 2011, when the first Video Technology Exchange Meeting was held. Mr. Ishikawa says, "it has become a very beneficial meeting to raise everyday technical problems and devise solutions with everyone. Up to now there have been about six meetings. The aim is to provide an opportunity for everyone to speak freely and to spark action among the members."

"Period of closed information is over"

One of the meeting's founding members is Mr. Masaru Suzuki, who is a director of the systems department at Shirogumi and built the SNS with Cybozu. Mr. Suzuki is in charge of system surroundings such as facility and license management and he currently conducts total system management of a range of workflows from filming to finishing.

Mr. Suzuki says, "the aim of the Video Technology Exchange Meeting is to solve problems by everyone exchanging opinions, whether they be CG production or post-production, and build high-quality and lean overall workflows by combing our strengths. Each has their own specialized role and we collaborate by bringing these points together. The period of closed information is over. There is no longer anything to prevent information being shared."

The SNS site is extremely active. It has a variety of categories relating to technology and each has lots of posts. He says, "when a question is posted, there is always a surprisingly large response. It is kind of like a font of ideas. There are often new discoveries, such as other creators knowing things that I thought that only I knew or the large amount of methods that I don't know. We should share information for mutual improvement. I think that pooling everyone's opinions and incorporat-



Production professionals gave lectures at sessions on a wide variety of topics

ing it into the software is possible."

Talking about the expansion of his booth at Inter BEE 2012, Mr. Suzuki expressed the following hope: "I thought that it would be good to communicate the interesting nature of communication. If people from regional areas embraced this opportunity and such movements started even in regional areas, then Japan as a whole would become a more interesting place."

Diversity of themes such as pre-visualization, finishing and grading

The sessions were held over three days and featured the following schedule.

 \star "Case studies of pre-visualization in Japan and Hollywood reports"

- introduction to pre-visualization case studies in movie production. The ACW DEEP representative and pre-visualization supervisor, Mr. Akira Yamaguchi, gave a lecture on real-time pre-visualization techniques to check filmed scenes in real-time rather than the commonlyknown CG movie simulation.

★"Small-production finishing environment"

Knowledge on working efficiently in small-scale production while avoiding risks and continuing to create high-quality works was displayed. Combining tool superiority from an online editor viewpoint, tool selection from the viewpoint of Adobe After Effects users with AE and CG, workflows from launching XML using Autodesk Smoke as a hub were introduced. The lectures were held by Mr. Masaki Mizuno and Mr. Inaba. Mr. Mizuno synthesized and edited CM and PV mainly using flame / smoke at the IMAGICA Nagata-cho studio. After that he went freelance from 2007 and then established the "khaki" studio in 2012. Via a spell at IMAGICA PLUS, Mr. Inaba is currently active in a wide variety of finishing processes such as CG, composite and editing.

★"Introduction to grading workflows"

Interceptor's video production director, Mr. Genta Tamaki, and digital colorist, Ms. Yumi Hirakawa, were invited to introduce the fun and flexibility of grading by round-trip between DaVinci Resolve 9 and Final Cut Pro using materials shot with a Blackmagic Cinema Camera.

★ "Ways to use Thunderbolt effectively"

Mr. Masaki Kobayashi, an editor/system manager for WINK2, introduced the Thunderbolt product focusing on storagerelated products. He introduced a lineup of companies operating SSD by expansion chassis from video devices and explained ways to use and gave tips on operating the DAS of the subject product - Thunderbolt.

* "Monitor calibration report meeting"

Mr. Naoya Sugita of *MARZA ANIMATION PLANET* and Mr. Kazuhiro Tomita, an editor in the editing technology department of the Technomax Video Center, reported on monitor calibration inspections conducted by *MARZA ANIMATION PLANET* as well as examples of use by the same company.



Record high 871 companies exhibit at Inter BEE 2012 and number of visitors rises to 30,000 mark

On the first day of the Inter BEE 2012 exhibition on November 14, the Opening Ceremony was held at the central entrance of the Makuhari Messe Exhibition Hall just prior to the venue opening at 10 a.m. Representatives from the Ministry of Internal Affairs and Communications (MIAC), Ministry of Economy, Trade and Industry (METI), Association of Radio Industries and Businesses (ARIB), and IABM were invited as guests to the Opening Ceremony. At this ceremony the significance of the event together with a rundown of Inter BEE 2012 was explained by Mr. Tatae, the Operating Officer of the host organization, the Japan Electronics and Information Technology Industries Association (JEITA). There were also speeches by guests-of-honor from MIAC and METI, which have become supporters from this exhibition, and they added some words about expectations for Inter BEE in the current Japanese economic climate. This was followed by an opening declaration by the International Broadcast Equipment Exhibition 2012 Organizing Committee Chairman, Takashi Kurama, and Inter BEE got off to a splendid start with a tape-cutting ceremony performed by hosts and guests-of-honor.

"Asia's largest broadcasting equipment exhibition in response to media diversification"

Hisanori Tatae, the Operating Officer of the host organization, Japan Electronics and Information Technology Industries Association (JEITA), started the ceremony by standing up to give an opening address. In this address, he pointed out that Inter BEE, now in its 48th year, will see a record high number of exhibiting companies at 871, including 491 overseas companies from 35 countries and regions. He stated that, "on a similar level to NAB in the U.S. and IBC in Europe; Inter BEE is Asia's largest broadcasting equipment exhibition, where world-class video, broadcasting, audio and lighting equipment are all showcased under one roof."

"Over the following three days we will be welcoming a wide variety of visitors exceeding 30,000 people. For exhibitors and visitors alike, this year's Inter BEE will fulfill its role as a place for information exchange and business creation, so I hope that you will use make good use of this one-time-a-year opportunity and get the desired results."



Guests taking part in the tape-cutting ceremony (from left)

Mr. Takashi Kurama

Chairman of the Inter BEE 2012 Organizing Committee Mr. John Ive

Director of Business Development & Technology, IABM

Mr. Toru Nakayama

Deputy Director-General, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry

Mr. Toshiyuki Minami

Deputy Director-General, Informatin and Communications Technology Bureau, Ministry of Internal Affairs and Communications

Mr. Fusaki Matsui

Managing Director of the Association of Radio Industries and Businesses

Mr. Hisanori Tatae

Operating Officer of the Japan Electronics and Information Technology Industries Association (JEITA)

Mr. Toshiyuki Minami Deputy Director-General, Informatin and Communications Technology Bureau, Ministry of Internal Affairs and Communications

"New services making use of digital technology"



To continue the proceedings, Mr. Toshiyuki Minami, the Deputy Director-General of the MIAC and Mr. Toru Nakayama, the Deputy Director-General of the METI, who took part in the opening ceremony as guests-of-honor, delivered a congratulatory speech.

Mr. Minami stated that Inter BEE "showcases the world's most advanced broadcasting, video and audio equipment all under one roof, and I hope it will provide a golden opportunity to create new business chances through the exchange of diverse information generated by encounters with new technology". He also came up with the keyword, "post-digital" when he said that "I hope that each and every one of you will decide with your own eyes what technology is most likely to be "post-digital". Regarding the significance of broadcast digitization, he indicated that "developing an environment to create new services enabled by digital technology" would be the next challenge for broadcasting digitization. He said, "I want to devote energy to developing an environment that enables the delivery of new services utilizing the merits and characteristics of digital technology and, particularly, services that link communications and broadcasting services, and I want these services to be delivered to the nation as soon as possible".

Mr. Minami then referred to the "Investigative Commission on the Upgrading of Broadcasting Services" established by the MIAC (chaired by Sudo Osamu, professor of the Tokyo University Graduate School). Talking about his ambitions for the Commission, he stated, "There are two issues – one is how to exploit Japan's strength, being high-definition technology or in other words, 4K/8K. The other is establishing the rules for practical application of high functionality TVs or so-called smart TVs. I believe that mutual improvement of both of these areas may stimulate new developments."

Towards the end of his speech, Mr. Minami voiced some concerns: "while there may be a tendency to think we are being impatient, this area is changing and evolving at breakneck speed. If we don't take action now based on a full grasp of "post-digital" 10 years from now, we will be too late". He wrapped up his speech by saying, "I hope that we can develop a clear roadmap while borrowing wisdom from those around us."

Mr. Nakayama of the METI started his speech by defining Inter BEE as "a great opportunity to disseminate information to domestic and foreign markets about Japan's world-class broadcasting technology and techniques encompassing its equipment", and then stated, "I hope that it will be used to great effect in the development of new business."

Mr. Toru Nakayama Deputy Director-General, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry

"Fusing and diversifying ways to enjoy broadcasting and communications"



He then went on to talk about the "extremely difficult business and economic climate facing all companies", particularly TV companies in the Japanese electrical industry, due to factors such as the "backlash against the household appliance eco-point system and demand for TVs due to conversion to terrestrial digital TV" as well as the "historically strong yen". Despite these problems, he expressed his hopes about Japanese "monozukuri" or total manufacturing: "I believe and have total faith that Japanese monozukuri, including contents, design and sensibilities in addition to manufacturing, has been in no way compromised and remains at a world-class level even in the middle of these circumstances."

Mr. Nakayama spoke as follows about experiencing such technology firsthand at the CEATEC exhibition in October. "As well as being impressed at the picture quality of the 4K-like high-definition displays, I thought that it would be great in the near future to enjoy contents at home that make full use of such a clear picture. Similarly, I am very much looking forward to new and diverse ways of enjoying communications and broadcasting when the Internet can be accessed from the TV, and such technologies merge and give way to a host of new content services."

Mr. Nakayama then stated that "the METI is investigating next-generation TV" through its 'Investigative Commission on Next-generation Television" (chaired by Kazuyuki Ashimura, a specially appointed associate professor of Keio University) established in partnership with JEITA. He explained about the government and the people working together to create a new international market: "the MIAC is participating in our Commission and we at the METI are participating in the MIAC's own investigative commission on broadcasting services. Through such total collaboration, we are striving to examine the future with a belief that making equipment and contents is entwined with broadcasting business." Expressing his desire to realize this, Mr. Nakayama said, "Demonstrating the future at an early stage through such commissions will lead to the revitalization of the industry and creation of new industries. I hope we can advance this while listening to your opinions.'

Following these speeches, the International Broadcast Equipment Exhibition 2012 Organizing Committee Chairman, Takashi Kurama declared the exhibition open. To conclude the ceremony, a tape-cutting ceremony was performed by representatives from the MIAC, METI, ARIB, IABM, JEITA, and the Organizing Committee. Inter BEE 2012 Exhibition Report Reception Party

Quest for and development of new broadcast service business models in this new era ushered in by the complete shift to terrestrial digital broadcasting in 2012

A reception was given from 6 p.m. on the opening day of the exhibition on November 14. This was the first time in four years that a reception had been given at Inter BEE, so we invited top management from partner organizations, NHK, commercial broadcasting stations, and exhibiting companies who had been supportive in the holding of Inter BEE, and treated the event as an opportunity for B2B exchange. This was followed by an opening address from Takashi Kurama, the International Broadcast Equipment Exhibition 2012 Organizing Committee Chairman, and then Keiichi Kubota, the Managing Director, Executive Director-General of Engineering of one of our supporting organizations, NHK, took the rostrum to give an opening speech as a guest-of-honor. Similarly, Shinya Kimura, the Executive Director of another supporting organization, the Japan Commercial Broadcasters Association (JBA), stood to give a toast.

Remarking on the complete shift to terrestrial digital broadcasting in Japan following the conversion in March this year by the three Tohoku region prefectures, both Mr. Kubota and Mr. Kimura heralded this year as the dawn of a new broadcast service.





Mr. Takashi Kurama Chairman of the Inter BEE 2012 Organizing Committee



"Record high number of exhibitors at Inter BEE, Asia's major broadcasting equipment exhibition"

The reception was opened by an address by Mr. Takashi Kurama, Chairman of the International Broadcast Equipment Exhibition 2012 Organizing Committee.

"Inter BEE 2012 will see a record high number of exhibitors at 871 companies and organizations, and among these, there will be a record high number of 491 companies from 35 countries and regions overseas, demonstrating the great interest in this exhibition from both Japan and abroad. A variety of Japanese and foreign companies and organizations will be presenting their much-awaited ideas at the exhibition venue indicating the present and future of the media industry. These include 4K and 8K ultra high definition video technology and the potential of new media, such as second screen and smart TVs, as well as new business models including the effective use of radio waves such as VLow, digital signage, and projection mapping. In the Cross-Media category, which was newly established last year, a new cross media theater has been set up to hold sessions of varied presentations on the diversity and potential of media and contents given by top creators and professionals excelling at the front line of their respective fields. In addition, leaders from Japan and abroad in the fields of video and music have been invited to give presentations on themes such as next-generation contents and reliability and creativity at the forever-popular Inter BEE Content Forum, provoking debate on latest trends in content business."

"New era ushered in by complete shift to terrestrial digital broadcasting"

This was followed by an address by Keiichi Kubota, the Managing Director, Executive Director-General of Engineering at one of our supporting organizations, NHK.

Mr. Kubota started by stating that total conversion to terrestrial digital broadcasting in Japan was completed in March this year now that the three Tohoku prefectures had introduced it after delays caused by the Great East Japan Earthquake of the previous year: "2012 is the year that marks the complete shift to terrestrial digital broadcasting in Japan".

Mr. Kubota also stated that this complete shift to digital broadcasting had "ushered in a new era" and that "I feel that services previously difficult to create will now spread rapidly".

Mr. Keiichi Kubota Managing Director, Executive Director-General of Engineering Japan Broadcasting Corporation (NHK) Mr. Shinya Kimura Executive Director The Japan Commercial Broadcasters Association(JBA)



He observed that the complete shift to digital broadcasting would open the doors to a new era of broadcast service development and adoption.

He stated that "broadcasting station side" changes due to the digitization of broadcasting include "changing broadcasting workflows such as new program production style and coverage systems", and expressed hopes that "high-quality TV content production equipment that will clearly exceed hi-vision such as 4K and 8K could be seen at Inter BEE. I think that manufacturers have finally started to invest effort into the realization of next-generation broadcast systems".

Referring to movements to improve product and picture quality in TV technological development, "Mr. Kubota commented, "I strongly feel that the golden era of TV will come again", and informed us that public viewing in super hi-vision at the London Olympics was favorably received. He stated that "we have received urgent requests for this TV and we are hurrying development along to meet these demands." Exemplifying the use of super hi-vision in areas other than broadcasting, such as digital signage, digital cinema, medicine, museums and art museums, he closed his speech by saying "we want to advance such technology through the cooperation of many people. I think that super high resolution and super high definition video is a strength of Japan, and I believe that advancing this further will enrich broadcasting culture as well as strengthen Japan's international competitiveness."

"New broadcasting with a business model unique to commercial broadcasting"

At the end of the reception, Shinya Kimura, the Executive Director of the supporting organization, the Japan Commercial Broadcasters Association (JBA), took the rostrum. Similar to Mr. Kubota, Mr. Kimura took up the subject of the complete shift to terrestrial broadcasting in his speech: "Through the reporting of last year's earthquake, I got to strongly appreciate the social mission held by commercial broadcasters. I also think, at the same time, that broadcasters should think together with manufacturers about the new shape of broadcasting and what sort of contents would be suitable for digital. I hope Inter BEE will give some ideas about the increased sophistication and diversification of broadcasting leading to new business models, which hasn't been mentioned for a long time, and the future of broadcasting from a private perspective."



Enhancing camera equipment network functionality to propose a "future vision" of video use Panasonic proposed its future vision of broadcasting and office AV equipment enabled through an IP Network link-up of "P2HD" Series, "AVCCAM" Series and HD System devices. The company exhibited the new addition to its P2HD Series, the "AG-HPX600" memory card camera recorder, and the "AG-AC90" memory card camera recorder from its AVCCAM Series. Panasonic also exhibited its "AK-HC3800" multi-format camera as a studio camera system, as well as the IP video distribution-compatible "AW-HE60S/H" HD integrated camera as a remote camera system.

Camera recorders were also introduced together with new recording media. This was the first time that the "microP2 card" (32GB/64GB) semiconductor recording media to be used with the P2HD Series for new broadcasting was exhibited in Japan. This microP2 card helps to vastly reduce media costs by changing the form factor to an SD memory card. Improving the durability of RAID system adoption and internal substrate configuration also ensures high-speed transmission and high reliability similar to that of existing P2 cards. During the exhibition, live transmission was performed with these devices from the Ustream studio in the company's booth, promoting a new form of video distribution. We asked Minoru Namikawa, the Marketing Project Team Director of Panasonic's Professional AV Business Unit, Digital Imaging Business Group, about the reaction of visitors to its exhibition as well as the role of the Inter BEE exhibition.



Mr. Minoru Namikawa Senior Coordinator, Marketing Group, Marketing Communication Professional AV System Business Unit Imaging Business Group, AVC Networks Company Panasonic Corporation





Enhancing network functionality by focusing on cloud link-ups

What things did you particularly want to promote at this exhibition?

"Our new 'AG-HPX600' memory card camera recorder, which is a new addition to our P2HD Series, and the new recording media, the 'microP2 Card'. The AG-HPX600 now allows camera images to be viewed in a smartphone and tablet PC by enhancing network functionality. It also supports file base searches based on metadata. Basic editing is also possible, so edit and transfer workflows can be carried out straight after capturing images. This enables the amount of equipment used at locations to be reduced, helping to improve work efficiency".

"The new microP2 Card recording media for the AG-HPX600 is compliant with the 'SD Memory Card UHS-II' standard and as well as being highly miniaturized enables cost reduction and versatility. Miniaturizing this product and speeding up read/write functions simplifies work on location. This is scheduled to be released in spring 2013 together with the "microP2 Card Adapter" to allow it to be used with existing P2 devices. This product lineup focuses on the "future vision" of video production and distribution. At this exhibition, we tried to provide an exhibition with a link to the future."

What is Panasonic's "vision of the future"?

"The networking of a series of workflows including video capture, editing and transfer, but we are focusing first on cloud link-ups. Our exhibition this time did not give any definite answers, but rather ideas that make use of clouds as already seen in Europe and the U.S. By connecting to clouds, video production and use workflows change dramatically. The AG-HPX600 wireless editing system with its enhanced network functionality is something that lays the groundwork for this vision."

Increasing needs for network distribution

How did visitors respond to your exhibition?

"Investment in terrestrial digital broadcasting has reached a saturation point, so interest in the filming equipment has increased. In particular, many customers are interested in network distribution. While we focused mainly on exhibits aimed at broadcasting stations in the past, we have increased the number of low-end solution exhibits in recent years. This is because it has become an important challenge to achieve an attractive video service on a restricted budget."

What are the challenges and what improvements can be made to your exhibition in the future?

"While there are needs for solutions exceeding HD, such as 4K-compatible cameras, there are also increasing needs to improve work and cost efficiency at video production locations. It is vital to improve on previous efforts by enhancing our lineup of products supporting customers' wide and varied needs."

Inter BEE's significant role as one of the world's four major broadcasting equipment exhibitions

What is the role of the Inter BEE exhibition?

"Inter BEE is one of the world's four major broadcasting equipment exhibitions and the biggest in Japan, so for that reason it is hugely significant. Its role is to provide a golden opportunity to promote and provide information on new products and ideas to a wealth of customers. Another large merit is that it allows companies to directly see and hear customers' reactions and opinions."

What are your future hopes for the Inter BEE exhibition?

"It would be great if it could attract more visitors from overseas, particularly from Asia. I would like Inter BEE to actively distribute information to people overseas and encourage them to visit."





Continuing on from a theme of "Continuous Innovation", FOR-A exhibited a large number of innovative camera products such as next-generation file-based solutions. With these file-based solutions, a variety of materials can be saved to a server in an MXF file, and workflows including editing, exporting, and archiving are converted to a file base. "MediaConcierge" manages the entire operation and its editing and exporting operability and usability have been improved with the addition of new functions. Its archiving system includes a new-type high-capacity LTO server that enables high-speed transmission.

With regard to its camera products, FOR-A unveiled for the first time in Japan its "FT-ONE" high-speed camera, which is capable of recording at full 4K (4096 x 2160 pixels) at up to 900 frames per second, enabling super-slow motion photography. Up to 9.4 seconds of RAW data can be saved on the internal memory, and the available memory can be further increased with external SSD cartridges. FOR-A screened a demonstration of footage shot in 4K super-slow motion at a specially erected theater inside the booth.

FOR-A displayed a host of new exhibits and products. Its live production related products included the all-in-one live production system, 'SmartDirect', and its video switchers were comprised of two new "HANABI" products ("HVS-390HS" 2M/E model and "HVS-4000HSA" 2M/E - 3M/E model). We asked Takayuki Shiratori, Director of the Planning and Public Relations Group in FOR-A's Planning Office about the reaction of visitors to its exhibition and his thoughts about the future role of Inter BEE.

Feeling of new possibilities and markets expand as movie and CM industry visitors increase



Mr. Takayuki Shiratori Group Manager PR & Marketing Group, Planning Division FOR-A COMPANY LIMITED

Unveiling the "FT-ONE" full 4K high-speed camera for the first time in Japan

Tell us about your main exhibits at this exhibition

"Next-generation file-based solutions and the 'FT-ONE' full 4K high-speed camera were the main exhibits on display at this exhibition. We started providing file-based solutions from 2007 and we have continued to advance our products while incorporating the views of customers. As a general overview of this technology, this year we strongly advocated the merits of file-based workflows that integrate and manage operations ranging from ingesting to editing, exporting and archiving materials."

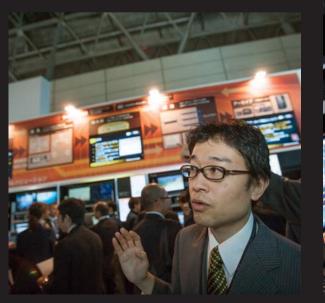
"In addition, the FT-ONE camera is a product into which we have invested a lot of effort. It is equipped with the newlydeveloped 'FT1-CMOS' full 4K resolution/ high-sensitivity global shutter method CMOS color sensor, enabling superslow motion photography at full 4K resolution and up to 900 frames per second. It can also record up to 9.4 seconds of RAW data at a full 4K resolution and 900 frames per second. and save it in the included standard internal memory. It supports simultaneous recording and playback of sports and live broadcasts. In addition, the camera is equipped with 2 HD output systems - the 3G-SDI 4 system and a HD output system for the viewfinder. Aimed at post-production work, this product allows data to be retrieved by SSD cartridge and it exhibits great power in shooting special effects for movies and so on. Incidentally, the FT-ONE was exhibited for the first time in Japan at Inter BEE 2012."

Great interest in migration from base band to file base

What ideas did you come up with to display your exhibits?

"Placing emphasis on the conversion to file base for local broadcasting stations, we gave specific file-based solution proposals as to what converting from base band to file base will change and what kind of management methods are required."

"We cooperated with our group company, EXA International, and produced a demonstration film about the FT-ONE. At a specially erected theater in our booth, we screened 4K superslow footage that had been color graded.





How did visitors react to your exhibition?

"I strongly feel that customers' interest in file-based solutions is increasing every year. We therefore focused on immediately usable solutions this year rather than merely concepts. It seemed to help customers form a definite image and many shared our opinions."

"I also get the feeling that we had more visitors from the movie and CM industries rather than just broadcasting stations due to the improvements made to our camera product lineup. Many cameramen working in the field visited our booth, which was a large increase on the small number that came previously.

"More visitors than average came this year. Due to requests to actually try out our products and to see demonstrations, I got the impression that these will lead to more concrete demands compared to normal years. We hope that such positive developments will turn into actual business negotiations."



Inter BEE provides a valuable opportunity to directly hear the opinions of customers

What role does Inter BEE play as far as your company is concerned?

"Inter BEE is the most important exhibition in Japan. I believe that it provides a golden opportunity for companies to promote a variety of their latest products to customers involved in the video industry. Being able to get opinions directly from customers is a big advantage. Developers who rarely get a chance to come into contact with customers also take part as staff, so they get to hear requests and improvements straight from customers working in the field. That feedback is incorporated in development work, enabling us to create even better products."

What are your future hopes for the Inter BEE exhibition?

"I have the impression that Inter BEE has actively distributed information via the Internet and social media. There is a limit to the amount of information we can distribute ourselves, so we are extremely grateful for this. We hope that Inter BEE will continue these efforts in the future. Providing there is a demand, we would be grateful if Inter BEE could strengthen information distributed to overseas to encourage more foreign customers to visit the exhibition."



Fuji Film exhibited a wide variety of its much-awaited new lens products including the "ZK4.7×19", which was met with a favorable reception when announced at the 2012 NAB. It also unveiled the "ZK3.5×85" telephoto lens for cinema cameras at Inter BEE 2012.

The ZK4.7×19 lens has a focal length ranging from 19mm to 90mm, while the ZK3.5×85 is a high-performance PL mount lens that can support a focal length from 85mm to 300mm. Both are equipped with an attachable electrical drive unit. This enables zoom and focus functions to be operated electrically, increasing the scope of fields of operation.

One of Fuji Film's showpieces is the "XA99x8.4BE", which can zoom in by 99 times. This is a "zoom in and zoom out" high-power broadcast lens that supports the world's largest wide-angle of up to 8.4mm from a distance of 832mm. Renewing the mechanism and control circuit improved the performance of its "optical vibration control mechanism" and, as a result, enhanced video filming time stability.

In addition, an abundance of diverse products that widen the scope of video production and use were exhibited. These included the "FinePix REAL 3D W3" 3D digital camera and "FinePix REAL 3D V3" 3D & 2D digital photo frame, the "IS-100" color management system for digital video film locations, and 6th generation LTO tape, which achieves maximum compression capacity of 6.25TB. We asked Hiroyuki Hosaka of the Fujifilm Optical Business Device Division, about the reaction of visitors to its exhibition and the role of the Inter BEE exhibition.

Improving performance and usability to speed up digital capability of video equipment



Mr. Hiroyuki Hosaka Television Lenses, Sales & Marketing Group No.2 Sales & Marketing Div., Optical Device Business Div. FUJIFILM Corporation



Equipping PL lens with an electrical drive unit

What were your main products at this exhibition?

"The latest cinema lenses. We particularly put a lot of effort into PL lenses this year. The major features of the ZK4.7×19 and ZK3.5×85 are to pursue high optical performance and attempt to improve operability. In addition to being smaller and lighter, they are equipped with an electrically controlled drive unit, which can smoothly operate zoom and focus functions. It fully displays high optical performance and its scope of image expression will surely expand. The ZK4.7×19 is a product that garnered a large reaction when it was unveiled at NAB in 2012. This Inter BEE exhibition was the first time this product was exhibited in Japan and it also hosted the Japanese debut of the ZK3.5×85."

"Beside lenses, we exhibited a 3D digital camera and 3D digital photo frame, the "IS-100" color management system for digital video film locations based on Fujifilm color reproduction and color management technologies, and 6th generation LTO tape, which achieves maximum compression capacity of 6.25TB. The IS-100 is the first digital video filming system that we have been involved in, and it seemed to get a large reaction. At the booth we demonstrated in real-time how to adjust color balance, intensity, brightness etc. by operating an i-Pad. The 6th generation LTO tape should be ready for release any time now. It is also being earmarked for archiving use."

What ideas did you come up with to highlight your exhibits?

"For our lens products, we set up a temporary studio at the booth similar to last year. We devised lighting that enabled visitors to experience firsthand expression ability and ease-ofuse in an environment similar to an actual studio. Cameras were arranged so that the lens faced outside the booth, enabling the telephoto lens to capture more distant subjects."

Increasing number of visitors outside the industry

Fujifilm announced the conclusion of sales of film for filming and screening the other day, so what was the reaction of visitors?

"Concluding sales of film for filming and screening is part of the business transition to deal with the digitization of movie filming, production and storage processes. However, we have worked on the digitization of equipment from an early stage, so there was no marked change from customers."

"Fujifilm has worked hard to exploit the merits of digitization in our products. This is evident, for example, in the inclusion of drive units in PL lenses. We improved usability by adding digitally controlled driving parts in analog-type optical devices such as lenses. We were able to successfully combine digital elements with the good qualities of analog and provide an improved product. This is a large step in the direction we are taking."

Who were the main visitors to your booth?

"Previously most visitors were from broadcasting stations, but the number of visitors from the movie and CM industries has increased over the last few years. Customer needs are changing and they don't really discriminate between equipment for movie and TV uses any more. A cause of this may be a growing support for high picture quality. There has been a move toward an emphasis on the true performance and potential of equipment".

"Including a drive unit in PL lenses is achieved by adding a broadcasting lens accessory to movie lenses, which is a sign of the advancing fusion between these two lenses. Irrespective of occupation type, customers requiring high picture quality and ease-of-use are increasing, so we believe that realizing such needs is our responsibility as a manufacturer."



Inter BEE is a vital point of contact with customers

Tell us about the role of the Inter BEE exhibition

"NAB in spring and Inter BEE in the fall make up a dual cycle of major exhibitions.

Inter BEE, in particular, is the largest broadcasting equipment exhibition in Japan and we consider it to be a vital point of contact with customers. While we have the opportunity to make contact with customers in our daily sales activities, chances to deal with customers from various occupations at the same time are rare. In this sense, Inter BEE plays a significant role."

What requests and hopes do you have for Inter BEE?

"We want to see and study other company trends, such as exhibition content, display method and booth layout, but we can never leave our booth for the entire exhibition period. It would be great, for example, if InterBEE could provide at least 1 hour prior to opening the exhibition on the first day for us to visit other booths."

"It would also help if InterBEE could be held at a slightly earlier period. The reason being is that some customers make up their budgets a little earlier than Inter BEE. If the exhibition started earlier, exhibition content could de designed to appeal to companies' compiling their budget for the next financial year."





Proposing total digital audio solutions that fully demonstrate the Group's combined power

Yamaha exhibited a variety of new products including its new CL series of digital mixers, the NEXO speaker system, and Steinberg music production software.

Yamaha's latest CL series combines digital mixer technologies accumulated over 25 years. Features include a touch panel that can be intuitively operated and an effector equipped with 'premium rack' functions created in collaboration with Rupert Neve Designs.

The STM series was exhibited as a new NEXO product that can handle events aimed at hundreds to tens of thousands people. It is easy to handle, rigging can be carried out by a single person and the angle of the grand stack can be fixed. This series also supports the construction of large-scale systems that arrange main and bass modules into a double array and triple arrays.

Another new product in addition to the CL series was the advanced production system, "NUAGE", which was co-developed with Steinberg. This is a DAW solution equipped with control parts, such as a fader and master unit, as well as an audio interface.

In addition, the combined merits of NEXO and Steinberg becoming group companies were promoted at this exhibition. Because these new products are compatible with the 'Dante' digital audio network, digital audio-related total solutions integrating all brands were displayed.



Mr. Manabu Takeda Supervisor, Marketing Group PA Sales & Marketing Division YAMAHA CORPORATION



PLARAG

Hopes for application methods that bring out the attractiveness of audio equipment

What do you think is the role of Inter BEE?

"It is the dominant exhibition in Japan. We are very grateful because it allows us to directly hear the opinions of people from various positions ranging from individual users to corporate customers. It is a valuable exhibition because we can get a real feel for customers' reactions and product evaluation."

What hopes do you have for Inter BEE?

"While there are a lot of video equipment exhibits aimed at the broadcasting industry, audio is also a crucial element of increasing the attractiveness of video contents. We were considering how to display exhibits that give visitors a feel for their performance and quality, but there are sound pressure regulations regarding indoor booths so expanding the booth in that way is difficult. We have exhibited speakers in a soundproofed and sound insulated booth to demonstrate their performance, but when the speakers are large their appeal is not fully demonstrated in small places. I hope that Inter BEE will examine ways for exhibitors to demonstrate the potential of professional audio equipment."

Displaying a lineup of products compatible with Dante

What was the concept behind your exhibition this time?

"The concept behind our exhibition was "All to the NEXT". In addition to the Yamaha, CL series, NEXO and Steinberg brands, we proposed Yamaha Group total solutions. Specifically, we demonstrated that the world of digital audio has reached a new stage by connecting these new products to the "Dante" digital audio network and monitoring and controlling audio via a network."

What kind of exhibition did you set out to provide?

"We devised ways to expertly demonstrate the combined strengths of the Yamaha Group. We expanded the number of segments from 20 to 25 this year and stopped dedicating segments solely to one brand. We thought that by doing so, we could present a clearer overall picture of workflows through total solutions. We demonstrated that by showing the overall picture, we can meet a wide range of needs from recording to music production and live venue use."

World debut of the "NUAGE" DAW system

Which of your exhibits got a particularly good reception?

"The Dante-compatible total solutions obviously got a good reception, and among those the Yamaha-Steinberg co-developed 'NUAGE' system solution for post-production was extremely well-received. This is the first joint product between us since Yamaha incorporated Steinberg as a group company, and it made its debut on the global stage at this Inter BEE exhibition. Because of a lack of large special purpose controllers in the past, I feel that there are strong needs for a system for business use.

What do you think visitors are looking for?

"Rather than thinking about video and audio separately, recently there has been greater demand for solutions combining both and, in fact, NUAGE is a product that meets such needs. While its main function is audio editing, editing can be performed while synchronizing with video. We gave a demonstration of audio editing together with video at the booth."

"Such needs have intensified because ways to combine audio and video have increased. For example, some live music club customers not only stage concerts, they also record the concert and sell it as a package product or distribute the music with a video via a network. Thinking of the various ways this could be developed, there is a need for systems to integrally process audio and video."



Inter BEE Exhibition Report Exhibit Map

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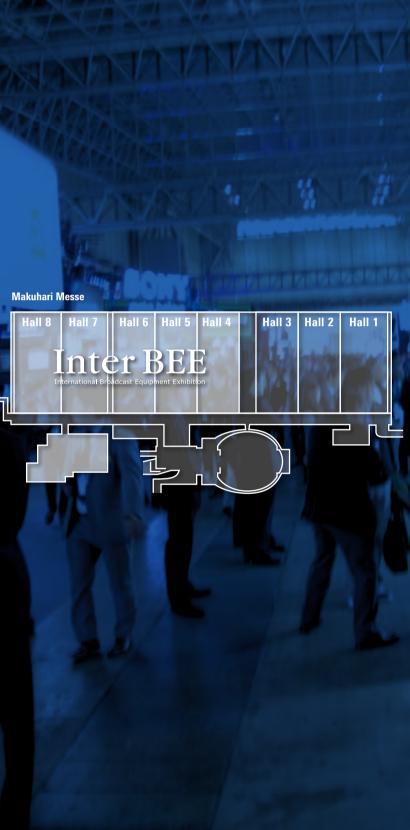




EXHIBIT MAP

EXHIBIT MAP



Exhibitor List



4205 ANTELOPE AUDIO

4215 ASNICS CO., LTD.

4216 Ballad Co., Ltd.

4404 Bestec Audio Inc.

4514 ComodoMattina, Inc.

4614 ComodoMattina, Inc.

4402 Crescent Co., Ltd.

4002 D&M Holdings Inc.

4602 DSP JAPAN Ltd.

4209 ELECTORI CO., LTD.

4511 Dream Inc.

4606 EXCEL INC.

4513 FOSTEX COMPANY

4608 Fraunhofer IIS

4611 Graphica Inc.

4610 GROOVE CO., LTD.

hibino corporation

HOOK UP, INC.

4208 IMAI & COMPANY, LTD.

4506 JR Sound Co., LTD.

4510 Line 6 Japan K. K.

4515 LOGIFULL Co.. Ltd

4108 Media Integration, Inc

4104 MEDIA PLUS CO., LTD.

4507 MI7 JAPAN INC.

4004 MORISHITA AVT

4609 Neutrik Limited

4607 NTI Japan Limited

4409 OTARITEC Corporation

Roland Corporation

4306 SENNHEISER JAPAN K.K.

4501 Solid State Logic Japan K.K.

4307 Shure Japan Limited

4615 SANKEN MICROPHONE CO., LTD.

4106 Sigma Systems Engineering Co., Ltd.

Solid State Logic Japan K.K.

4302 Onkyo Tokki Ltd.

4605 PULSE. CO., LTD.

4616 S.C.ALLIANCE INC.

4212 MIT INC.

4110

4006

4007

4107

4613

4604

148

4512 LIVEGEAB Inc.

ICONIC

4308 hibino intersound corporation

HOUSE119 Co., Ltd.

4711 MATSUDA TRADING CO., LTD.

MIURA CORPORATION

Miyaji Import Division

Miyaji Pro Audio

4503 MORSON JAPAN CO., LTD.

4603 NIHON ELECTRO HARMONIX K.K.

Penn Fabrication Japan INC.

4210 NITTOBO ACOUSTIC ENGINEERING CO., LTD.

4303 Fourbit Corporation

4214 Continental Far East Inc.

4617 Avid

4005

4001

4408

4406

4601

4308

4205

4511

4401

4304 AUDIO BRAINS co., Itd

4206 audio-technica corporation

4103 AUTHENTIC INTERNATIONAL

CANAL WORKS CORPORATION

DIGITAL LABORATORY, INC.

4612 ETANI ELECTRONICS CO., LTD.

EVI AUDIO JAPAN, LTD.

FIRST ENGINEERING CO., LTD.

HANAOKA MUSEN DENKI CO., LTD.

4308 Studer, Janan Broadcast I td STUDIO FOLIPMENT CORPORATION 4101 4617 Sunmuse Corn 4502 Suyama Dental Laboratory Co., Ltd. SYNTHAX JAPAN INC. 4508 TAC SYSTEM, INC. 4008 TAMURA CORPORATION 4405 4407 TC GROUP JAPAN. Inc. TEAC CORPORATION 4301 4403 Tech Trust Japan Co., LTD. 4211 TechnoHouse Inc. TOA Corporation 4202 4506 TOMOCA Electronics Co., LTD. 4305 TOYO Corporation 4203 TRITECH INCORPORATED 4505 UETAX Corporation 4003 Volt Ampere Inc. YAMAHA CORPORATION 4410 4509 YAMAKI ELECTRIC CORPORATION

4207 SOUNDTUBE ENTERTAINMENT INC.



Equipment

5515 A&A Co., Ltd. 5102 ADTECHNO Inc AJA Video Systems 8416 5222 Alchemy 5402 Altera Japan, LTD 5402 ALTIMA Corp. 6001 ALVIX Corporation 6302 ANRITSU CORPORATION 5510 Ardis Technologies 5507 ARMOR CORPORATION 7202 ASACA CORPORATION 8407 ASK CORPORATION 5410 ASTRODESIGN, Inc. 7301 AT Communications K.K ATEN JAPAN CO., LTD. 6310 8103 Atomos Co., Ltd. 5616 Autodesk I td BAY TECHNOLOGIES, INC. 8212 BLACK BOX Network Services Co., Ltd. 6107 7206 Blackmagic Design 8102 Born Digital, Inc. 5216 BROADCAST INDIA CAMPING WORKS Inc. 6404 5401 Canare Electric Co., Ltd. Canon Inc. / Canon Marketing Japan Inc. 8218 6301 Capella Systems 6301 Carina System Co., Ltd. Carl Zeiss Co. Ltd. 7208 5214 CCBN 6204 CHIEF 5001 CINEMAX CORPORATION 6109 Circle Co., Ltd. 7306 Cosmic Engineering Incorporation 5118 Crescent, inc. 5113 CueBellsSync, Inc. 6201 Cybernetech Corporation DAIKIN INDUSTRIES, LTD. 4702 5117 DATABROAD CORP. 7407 DataDirect Networks Japan, Inc. DEMPA PUBLICATIONS, INC. 6403 5105 DHT CORPORATION 5220 Digital Hollywood

DOREMI LARS Inc. 8215 8216 D-Storm Inc 7409 DUPLEX COLLTD 5508 DX ANTENNA CO., LTD 5604 EIDEN Co., Ltd. 5104 ELECTORI CO., LTD ELECTORI CO., LTD 5305 5402 ELSENA, Inc. 6303 EPSON SALES JAPAN CORP. 7002 FXLIGHT LTD 6407 Extron Electronics Janan 5603 Faith Co I td 8312 FLIGHTCOPTER Flying Camera Systems 6603 Fontworks Inc. 6507 FOR-A COMPANY LIMITED 5608 Forest Dyne Systems Corporation 7403 Frontiers Co., Ltd. 6108 Fuchu Giken Inc. 7103 FUJI XEROX Co., Ltd. 6506 FULIEII M Corporation FUJIFILM Corporation ELECTRONIC IMAGING PRODUCTS DIV. 6506 6506 FILLIEU M Corporation OPTICAL DEVICE BUSINESS DIV FUJIFILM Corporation PHOTO IMAGING PRODUCTS DIV. 6506 FILIEI M Corporation RECORDING MEDIA PRODUCTS DIV 6506 6306 FUJIKOWA INDUSTRY CO., LTD. 6408 Fujitsu Limited 5514 FUYOH VIDEO INDUSTRY CO., LTD. 7509 Gansui corporation 7101 GeoScience Co., Ltd. 6208 GIN-ICHI CORPORATION GoPro NIPPON 8516 5617 Grass Vallev K K 7516 Harmonic Japan G K HEIWA SEIKI KOGYO CO LTD 6501 HIBAKAWA HEWTECH CORP 5602 5506 HIBOTECH INC 5114 Hitachi Kokusai Electric Inc. 6307 Hitachi Solutions, Ltd 6307 Hitachi Systems, Ltd. HOEI SANGYO CO., LTD. 8406 5201 Hokuwa Co., Ltd. 5217 Hong Kong Trade Development Council HYPERTOOLS CO., LTD. 8405 I.S.X. CORPORATION 5605 5212 IARM 5211 IBC 5403 IBEX Technology Co., Ltd. 6502 IDK Corporation 7203 IDX Company, Ltd. 7209 IKEGAMI TSUSHINKI CO., LTD 5509 IMAGE STUDIO 109, INC. 6504 IMAGENICS Co. 1 td 5504 imd Japan 8311 Indvzone Co. LTD 5502 InnoOos Corporation 6308 Intec's Inc INTER-TEC Co., Ltd 5609 6305 INTOPIX ISLAND K K 6402 ITOCHU Cable Systems Corp 5109 Japan Broadcast Solutions Inc. 5003 Japan Communication Equipment Co., Ltd. 5511 JAPAN MATERIAL CO., LTD. 8316 Japan Weather Association 5218 Joshibi University of Art and Design 6607 JPC Co., LTD. 8104 .IVC KENWOOD Corporation KAMOLKAKOSHI Co. 1 td 5303 Keisoku Giken Co., Ltd. 8213 7302 Kenko Professional Imaging Co., Ltd 5213 KOBA 2013 (KOBEA E&EX INC.) 5112 KOHKEN COMPANY, LTD. 8214 KOMAMURA CORPORATION KONICA MINOLTA OPTICS, INC. 7412 8403 KUBOTEK Corporation 6207 K-WILL Corporation KYOSHIN COMMUNICATIONS Co., Ltd. 6503 Kvushu TEN Co., LTD. 6606 5103 Laguna Hills, Inc. 5408 Lambda Systems Inc 6315 Lancer Link Co., Ltd. 6210 I FADER ELECTRONICS CORP 6101 LSI JAPAN CO., LTD. 5202 LTO Program

8314 DITECT. CORPORATION

5107 LYNXTECHNIK AG 5601 M&I Network Inc. 7204 Manfrotto Distribution K.K. 4704 MASPRO DENKOH CORP 5511 Matrox Electronics Systems Ltd. MATSUDA TRADING CO., LTD. 5115 7406 Matsuura Kikai Seisakusho Co., Ltd. 8315 Media Garden Inc. 5308 MEDIA GLOBAL LINKS CO., LTD. MEDIACAST CO., LTD 5501 MEIKO TECH CO., LTD. 5204 5101 METAL TOYS MICROBOARDS TECHNOLOGY INC. 6604 7003 MICROCOM LTD. 6206 Miharu Communications Inc. 8417 Mikimoto Beans 5405 MITOMO CO., LTD. MITSUBISHI ELECTRIC INFORMATION SYSTEMS 8316 5205 Mitsubishi Kagaku Media Co., Ltd. 5108 MOUBIC INC. MUSASHI CO., LTD 7001 5210 NAB SHOW 7208 nac Image Technology Inc. 5302 Namoto Trading Co. 1 td 5116 NEC Corporation 5005 NEP Inc. 7104 NETMARKS INC. 6304 Netwell Corporation 5614 NETWORK ELECTRONICS JAPAN CO. 6106 NextoDI Co., Ltd. 8105 NGC CORPORATION NICCABI CO., Ltd. 5406 NIKON IMAGING JAPAN INC. 7307 5106 Nimbus Inc. NIPPO ELECTRONICS Co., Ltd. 6105 5613 Nippon Antenna., Ltd 6401 Nippon Telegraph and Telephone Corporation 7205 NIPPON VIDEO SYSTEM CO. LTD 5404 NIXUS Hokkaido Nikko Telecommunications, Co., Ltd. 4709 NKK SWITCHES -NIHON KAIHEIKI IND. CO., LTD. 7515 NobbyTech I td 7512 NTE CORPORATION 6401 NTT Advanced Technology Corporation 6401 NTT Electronics Corporation NTT IT CORPORATION 6401 8211 ONTEC CO LTD 5611 OPHIT CO I TD 5205 OPTICAL ARCHIVE GROUI 6110 PACO ELECTRONICS INDUSTRY INC. 7308 Panasonic Corporation 7308 Panasonic System Solutions Japan Co. Ltd. 5409 PHOTRON LIMITED 5205 PIONEER CORPORATION 5406 Plannet., LTD. 5606 Power Zenith Inc. PROSPER ELECTRONICS Inc. 6313 6103 P-tec Co I td 5312 Quantel K.K. 7303 RATEC Limited Company 7207 BENT ACT SHOTOKU CORP 4701 RIKEI CORPORATION 5223 Rikkvo Universitv 5516 RIP-TIE INC. 7510 ROCKET Inc. 6406 Rohde & Schwarz Japan K.K. 4710 Roland Corporation 5203 Bovi Corporation 6209 sachtler Janan Corn 7513 Sakura Eiki Co., Ltd. SAMPLIEY SYSTEMS 6602 7201 SANSHIN FLECTRONICS CO. LTD 7305 Sanwa Cine Equipment Rental Co., Ltd. 6316 Seika Digital Image Corporation SEMTECH Switzerland GmbH Japan Branch 7304 5206 SETTSU METAL INDUSTRIAL CO., LTD. 7202 Shibasoku Co., Ltd. 7408 SHINKI CORPORATION 7207 Shotoku Corp. 6104 Sigma ITS Co., Ltd. 7511 SINSEI SHOJI CO., LTD. 6309 SiS Co., LTD. 7302 SLIK CORPORATION 7504 Soho Corporation 5615 Soliton Systems K.K.

6211 Sony Corporation/Sony Business Solutions Corporation 5307 STAR COMMUNICATIONS K K 6312 STUDIO PLUS 5002 Strawberry Media Arts Co., Ltd. 8211 Streambox SUGAWA VIDEO ENGINEERING CO., LTD. 6311 SUMITOMO ELECTRIC INDUSTRIES, LTD. 6601 5607 Sun Instruments, Inc. Sunmulon Co., Ltd. 7501 6314 Svnerav K.K. T3Media Inc 8316 Takahashi Construction Co. 1 td 6205 5306 TAKIGEN MEG. CO. LTD 4708 TANAKA DENKI 4707 TANIZAWA SEISAKUSHO TTD 5407 TECH. S Corporation 5311 Technical Farm 8404 Technical Supply Japan Co., Ltd. 6505 TechnoHouse Inc. 8217 TECHNONET CO., LTD. 6308 Tec's Inc 8210 Tektronix 7404 Teleforce Co I td 5215 TELE-satellite Magazine 5612 THIRDWAVE TECHNOLOGIES Co., Ltd. 5615 Tokyo Broadcasting System Television, Inc. 8101 TOKYO ELECTRON DEVICE LTD. 5219 Tokyo University of Technology 7402 Too Corporation 8515 Toshiba Corporation 5301 TOTSU INTERNATIONAL CO., LTD. 5304 Traffic Sim Co., Ltd. 5513 Tsubata Engineering Co., Ltd. 7514 TVLOGIC 5505 UNITEX Corporation 6203 Universal Computer Laboratory Co., Ltd. 6504 VIDEOTRON CORP. 5605 ViiTA Technology Co., Ltd. 6305 VILLAGE Island Co., Ltd. 5310 Vinten Japan K.K. 7517 Visual Graphics Inc. 5004 WASEI CO., LTD. 5309 WELL BUYING INDUSTRIAL CO., LTD 8101 Xiliny K K 5610 Yokogawa Digital Computer Corporation 5221 YOMIUBI INSTITUTE OF TECHNOLOGY 7105 YOSHIMI CAMERA CO., LTD 6405 YUASA CO., LTD. 6605 Z3 Technology, LLC



8508 Agai Trading Corporation 8504 auroralitebank Co. FIRST ENGINEERING CO., LTD. 8505 8509 JAPAN THEATER SERVICE CO., LTD. JAPANESE SOCIETY of LIGHTING DIRECTORS 8512 8507 KOTO ELECTRIC CO., LTD. LITE PUTER ENTERPRISE CO., LTD. 8601 8510 PROKIZAL COM INC. 8514 Toshiba Lighting & Technology Corporation 8514 Toshiba Lighting and Technology Engineering Corporation 8603 VISIO LIGHT INC. 8513 WORLD LIGHTING FAIR 2013



EXHIBITOR LIST

8517 Adobe Systems Co., Ltd. 8203 Alfredcore, Inc. 8204 CamCast7 Inc. 8302 CTC LABORATORY SYSTEMS Corporation CTCSP Corporation 8301 8209 Explorer inc. FAIRWAY Corporation 8402 8002 FORUM8 Co., Ltd. 8003 FS-NET Inc. 8519 Intel 8310 IPDC Forum 8305 IT Access Co., Ltd. 8204 Media Traverse Co., Ltd. 8001 MEDIAEDGE Corporation 8005 Mizuho Information & Research Institute Inc. 8308 NetOneSystems Co., Ltd 8206 Next Generation Radio Group 8208 PLAT-EASE 8309 Qumu, Inc. RealNetworks, Inc. 8306 RED DIGITAL JAPAN 8518 Rimage Japan Co., Ltd 8309 8207 Satellite Communications Network 8204 Teradek LLC 8303 3D CONSORTIUM 8004 3D eye pictures Video Research Ltd. 8205

Production Promote Area

- 8411 DIGITAL EGG INC. 8408 Digital Frontier Inc.
- 8415 Digital Media Lab., Inc.
- 8412 NHK Media Technology, Inc
- 8307 NTT LEARNING SYSTEMS CORPORATION 8410 OMNIBUS JAPAN INC
- 8413 0XYB0T
- 8414 Polygon Pictures Inc. 8409 WORKS CORPORATION INC

The Professional Information Site for Audio, Video and Communications Inter BEE online www.inter-bee.com

Inter BEE sets up a press team "Inter BEE News Center", which distributes information such as exhibition information provided by each exhibitor as well as information about exhibitions related to Japan and countries overseas. Collected information is distributed in the form of articles and videos by the press team and provided to target customers through the Online Magazine and Inter BEE TV on Inter BEE orificial website.

Inter BEE Online articles (excerpt)

Magazine

Sigma ITS Co., Ltd.

Exhibiting LTO Dubbing System, a LTO-5 video archive control device for file-based workflows

Sigma ITS (#6104) will exhibit the LTO Dubbing System as an archiving system targeting the growing demand for file-based digitization of broadcast media. By remotely controlling a LTO-5 video

archive recorder, the system allows users to partially automate the process of VTR tape filing. A write-out function also allows for saving onto external recorded media storage, VTR tapes, and other formats.

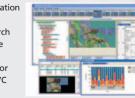
Used in conjunction with the company's SHAU-201 alarm aggregation terminal, users can continuously monitor and collect information from VTR deck playback

Magazine

Mizuho Information & Research Institute Inc. 2012.10.22UP

Next Generation HEVC Stream Analyzer Tool

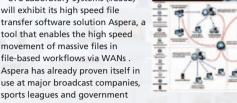
Stream Analysis of Next Generation Video Coding Standard HEVC Mizuho Information & Research (#8005) will display and provide in-booth demonstrations of its HEVC Stream Analyzer, a tool for analyzing next-generation HEVC bitstream as a new answer for imaging solutions.



On October 16, Mizuho announced the development of an HEVC assessment tool called the 'HEVC Stream Analyzer', which consists of software that assesses the characteristics of the signal (stream) as it has been compressed and encoded under the used is displayed in a

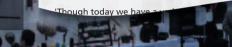
CTC LABORATORY SYSTEMS Corporation Exhibit High Speed File Transfer Software 'Aspera' CTC Laboratory Systems (#8302)

Magazine



2012.10.22UP

agencies around the world as well as Hollywood studios. What makes Aspera special is that it eliminates bottlenecks by using CTC's own fasp technology instead of FTP or HTTP. Since the API is open it is possible to integrate Aspera into existing systems.



Magazine

DSP JAPAN Ltd.

2012.10.22UP

2012.10.22UP

Exhibiting Products Including Newest Audio Processor Horus Made by Merging Technologies, **MC-Pro Sound-Field Automatic Corrector from French Company**

DSP Japan (#4602) will exhibit its

newest audio processor, Horus. Also on display will be the MC-Pro

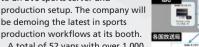
Sound-Field Automatic Corrector manufactured by the French company Trinnov. The MC-Pro is garnering notable popularity for its high-speed processing and accurate audio correction. In addition, the fully handmade high-fidelity M-series speakers from the Swiss company PSI will be exhibited, as well as the ES-series small mixers from the Swiss company Sonosax. a co which has earned the complete

Magazine PHOTRON LIMITED 2012.10.22UP

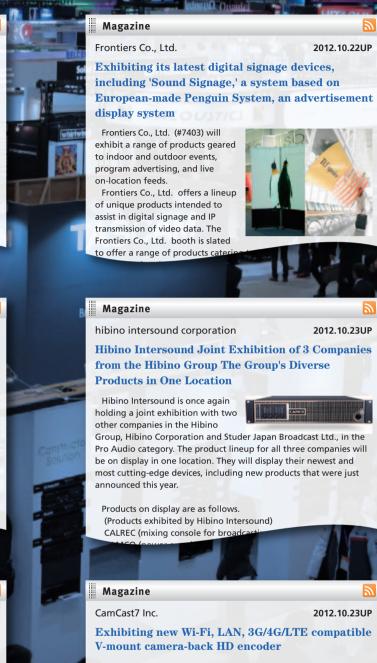
Photron reproduces workflow used at the Summer Olympics broadcast center, presents the latest in file-based sports production systems using EVS products

Photron (#5409) will reproduce the system used for the Summer Olympics in London, which ties in to an EVS sports server and production setup. The company will

Olympics.



A total of 52 vans with over 1,000 cameras and 300 EVS servers were used to provide live coverage of 43 locations at



CamCast7 will exhibit a new BRIK V-mount H.264 encoder at its booth (#8204). This ultra-small camera back HD encoder can deliver live footage from anywhere which has

an Internet connection. This encoder comes via the America based Teradek, LLC. CamCast7 specializes in live Internet broadcast services and the sale of related equipment. The company is Teradek's sole sales agent in Japan and imports, sells, and offers support for the company's products.

Using a dedicated decoder, users can retrieve data for monitor out, as well as easily forward live footage to CDN such as the Ustream and NicoNico Douga live platfu CUDE U 20

Magazine

2012.10.22UP

2012.10.23UP

2012.10.23UP

MIT INC.

Exhibiting special LAN cables for concerts and outdoor construction, NBC connector cables; also planning demos of mobile digital audio signal analyzer

MIT (#4212) is known for development and sales of interfaces and cables for audio, video, and computer applications for businesses, including broadcasting departments, recording studios, and public halls. In this case, MIT will exhibit its newest lineup of Mogami cables. MIT is well known for high sound quality and efficiency, in everything from analog audio to high-frequency bandwidth solutions for igital video



2012.10.23UP

2012.10.23UP

Magazine

RealNetworks, Inc.

Latest version of streaming Helix Universal Server and Helix Media Library content management tool

held at Makuhari Messe from 16 (Friday). The company plans to use its booth (#8306) to showcase the latest version of its streaming



Helix Universal Server and its Helix Media Library content management tool.

Helix Universal Server: Latest Version is Compatible with MPEG-DASH RealNetworks is slated to exhibit the latest version of Helix Universal Server, the company's stream

Magazine

OPTICAL ARCHIVE GROUP

2012.10.25UP

Exhibiting BDXL discs, 100GB BD-R media for long-term archiving. Stored at 25 and 50% relative humidity, they have a data recoverability period of over 50 years

Mitsubishi Kagaku Media (#5 will exhibit its recently annou BDXL, a professional 100GB BD archive disc. This direct-read a write Blu-ray disc is intended f long-term (10+ year) professio storage and is to be used for

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storing public documents, government files, and other critical data such as that stored by libraries and corporations. The discs meet OPARG (Optical Archive Group) standards.

The discs are specially des

RealNetworks will be appearing for the first time at InterBEE 2012. November 14 (Wednesday) through





Magazine **IPDC** Forum

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2012.11.5UP 20 eloped by 5	Adobe Systems Co., Ltd. 2012.11.5UP Demos Video Production Using its Adobe Creative Suite 6 Offers demos of video production solutions and	JHA	OTARITEC Corporation Presenting a range of new products the world: offerings from Germany's audiotechnik and LAWO, as well as	s d&b	Fraunhofer IIS Demo of MPEG-DASH adapti HE-AAC 5.1 with surround su and speaking volume optimiz	upport for Android 4.1,
I airwaves. ed in iscreen itent while e the ISDB-T	 hosts 'Adobe Video Intensive Training Session' Adobe Systems (#8517) will exhibit its latest video production solutions geared at the evolving broadcast industry. The exhibit includes Adobe's latest media development tool, Adobe Creative Suite 6 (CS6), as well as its newest subscription-based video production environment, Adobe Creative Cloud. CS6: multi-device compatible video production Interprete of the exhibities 	TEC S	OTARITEC (#4409) to exhibit a wide range of new products far more than in years prior. On display will be the V-Series, the latest talked from German firm d&b audiotechnik, specialist i speakers. In addition, British firm xta's new DS80 distributer, will be on view. Germany's Junger Audio, a maker of digital pri- provide OTARITEC with the LM2-JS, a 2-channel processor customized for Japan. Also on view wi 4-channel loudness control processor designed for environments.	d-about product in SR and facilities 000, a mic/line rocessors, will loudness control ill be the LM4, a	developed in collaboration w Fraunhofer-Gesellschaft is a German IT oriented private research institution composed of 80 research units, including 60 laboratories within Germany. It has a wide scope, providing various technological solutions for everything from construction to energy environmental, nanotechnology, and el logistics. It also has a developing licens of Fraunhofer-Gesellschaft is that it	y, security, medical, even transportation and
	Magazine		Magazine		Magazine	
2012.11.5UP	Atomos Co., Ltd. 2012.11.6UP	14	Blackmagic Design	2012.11.7UP	Soliton Systems K.K.	2012.11.7UP
el for use well as or Android	Exhibiting various new products including the 'Ninja2' ProRes compatible portable recorder, the 'Connect' portable recorder, and the 'Ronin'		Two models of the Cinema Camera, Blackmagic Cinema Camera, will be The booth will be enlarged and a ph	e displayed	Joint Exhibit with TBS - Exh mobile video relay 'Smart-tel	ubit featuring the
e character character 2D/3D	recorder, which comes with a small monitor ATOMOS (#8103) will perform demos in combination with the company's 'Samurai' and 'Ninja2' HD(SD)-SDI input output compatible and ProRes compatible portable recorders, and major camera manufacturers' camcorders and DSLR. ATOMOS will also exhibit its 'Connect H2S' (HDMI to SDI) and 'Connect S2H' (SDI to HDMI) HDMI-SDI portable converters, as well as its 'Ronin' and 'Ronin Duo'		corner will be established A photography corner will be established and two models of the Blackmagic Cinema Camera will be displayed Black Magic Design will display two models of the Blackmagic Cinema Camera, the EF model as well as the MFT model, which will support the micro four-thirds lens announced at the IBC.		Mobile relay system with demonstrated success in the TV relay field Soliton Systems is to hold a joint exhibit with TBS showcasing the 'Smart telecaster HD' from its mobile video relay 'Smart-telecaster' product series, the 'S which works with the Android OS, as v products. Smart-telecaster is a system that allow high-resolution video using a video car	well as yet-unannounced new ws anyone to easily relay
	ProRes(AVID DNxHD) portable decision		The booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited of the booth will be expanded to a cited		It can also be used to check on progree	
2012.11.6UP	Teleforce Co Ltd. 2012.11.6UP	15	Media Integration, Inc.	2012.11.7UP	NEC Corporation	2012.11.8UP
rack', and other iternal	Exhibiting the NH-462 Digital Video Recorder, a Full-HD H.264 video recorder with skipback play functions	2	Demos of new mic products made by company Earthworks, and a loudney solution from the British company M	y the American ss control	With "Feel the Innovation" 7 Newest Imaging Solution, wi Master System	Theme, NEC Unveils
t plane	Teleforce will exhibit the NH-462 Digital Video Recorder, a Full-HD recorder, equipped with a one-touch searchable skipback play function to locate the point in time of earthquake and other security alarms. Real time H.264 recording in Full-HD (1920x1080) with an HD-SDI input. Up to 60fps recording capability. Capable of transmitting at a distance of up to 200 meters. Can be equipped with two RAID1 high-capacity HDD's. With the pre-recording function, the moment of an alarm can be easily searched and played back from the		Media Integration (#4108) will exhibit the 'WL40V' wireless high-definition vocal mic head made by the American company Earthworks, as well as its 'Installation' mic series for equipment/sound. British company Nugen Audio will exhibit its latest loudness contre -Using the 'SR40V' wired mic as a base to creat The WL40V is a hand-held transmitter capsule	te a wireless capsule	Feel the Innovation, NEC's corporate theme, will underscore introductions of the company's broadcasting solution, which includes its next release master system and a new model production switcher. The newest, third generation studio master system will be introduced on the booth's main stage. (#5116).	
ed to the size	prerecording, corresponding to an extension	R	wireless mics into high-definition wirele		At center stage: Introduction of new	AND IN THE REAL

2012.11

Multiscreen Broadcasting Study Group to demonstrate 15 television programs developed broadcasting companies for multiscreens

The Multiscreen Broadcasting Study Group will give a demonstration of multiscreen broadcasts at the IPDC Forum booth (#8310). The demo uses IPDC

(IP Data Casting) to transmit IP packets over the digital airwaves

The Multiscreen Broadcasting Study Group was started in December 2011 with the aim of implementing a 'multiscreen broadcasting service' letting viewers enjoy related content while watching a television program. That service would use the ISDB digital terrestrial television broadcas

Magazine

TECHNONET CO., LTD.

VFEX-ES sportscoder system entry model for us in sports broadcasts to be exhibited, as well as sports broadcast information services for Andro

Technonet (#8217) has released 'VFEX-ES', a sportscoder system for HD(SDI) input-output which is optimized for sports broadcasts such as soccer, baseball, rugby, volleyball, road relay, marathon.



Announced as an entry model for the 3D-compatible characte generator 'VFEX-R' series As an entry model for the 'VFEX-R' series, which is a character generator compatible with the company's high-vision 2D/3D

graphics & 3D CG animation, this pr

Magazine

TAKIGEN MFG. CO., LTD.

'dual structure vibration control 19 inch rack', a lightweight aluminum rack for trucks and oth vehicles which does not interfere with internal equipment, even in a vibrating transport plane

Takigen MFG (#5306) will exhibit its 'dual structure vibration control 19 inch rack' which does not interfere with internal equipment, even in a vibrating transport plane



(for use in trucks, etc.). It is a lightweight rack which is fabricate from a combination of aluminum die casting, aluminum frames, aluminum panels (tie-dyed materials). It can accommodate IECS standard 19 inch equipment.

Because it uses extruded aluminum, it can be designed to the of your choice, and can be custo



AMS Neve's console 'Genesys', and more. In addition, there will also be a reference exhibit of Topcon's 360-degree vid stem '360VR Lite'

cameras, showing the effects of the lighting. Visitors can check out the lighting effects in the

monitoring space.

"KR402" speakers will be the latest additions to the the K-array Red



Line series. In lighting equipment, the new LIZ series I lead a pack of new offer

commented on the exhibition contents at this year's InterBEE, "Up until now, we have focused on appealing to data broadcas equipment customers. This year, ou

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Inter BEE Exhibition Report							Online Magazine Headlin
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Harmonic Japan G.K.	2012.11.11UP	Kenko Professional Imaging Co., Ltd.	2012.11.11UP	STAR COMMUNICATIONS K.	C. 2012.11.12UP	TAMURA CORPORATION	2012.11.12UF
Exhibiting digital content workd state of the art equipment for da highly functional servers, and tr multiscreen devices	ata transmission,	LED lighting demo in makeshift s exhibits include variable angle ca system, lighting fixture that turn into green screens	amera support	Introducing the new TVU company TVU Networks, product line that include version, a Cloud version transmits via an iPhone	es a 900g lightweight	Exhibiting products such a audio mixer, digital wirele audio and wireless devices stations and broadcasters	ess intercom, and s developed for television
Continuing from last year, Harmonic Japan will exhibit its digital content workflow solutions. The company exhibits end-to-end solutions for content creation and distribution from encoding to recording, editing, transcoding, transmitting, and consumption on multiscre Harmonic will introduce its technology for workflow process at separate booths for: 'C & Delivery'; 'Production & Playout'	r each stage of the	 Solutions for studio lighting using all Camlight LED lights Kenko Professional Imaging (#7302) is participating with Kenko Tokina and Slik. A temporary studio in the booth is used to demonstrate studio lighting using Camlight LED lights from CUK Hing for all lighting. Besides displaying new products such as the support system Matthews HD DC Slider and I (HMI light head with 800/1200W) 		Star Communications (#5307) w show the new TVUPack series transmitters from TVU Networks. These transmitters allow real-time transmission of HD video over mobile phone networks. The TVUPack series allows live to expensive or technically impossib networks such as 3G, LTE, 4G and bigh resolutions. TVU Network	e proadcasts that were previously too le. It simultaneously uses several	Tamura Corporation (#4405) will be exhibiting audio and wireless devices developed for television channels and broadcasters. The main items of this exhibition will b its flagship NT880 model digital audio mixer high-quality audio system, and its digital wireless intercom that can play a vital role intra-station communication system	in the construction of any
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SETTSU METAL INDUSTRIAL CO., LTD.	2012.11.11UP	NTF CORPORATION	2012.11.11UP	NTT Advanced Technology C	orporation 2012.11.14UP	NTT Electronics Corporation	2012.11.14U
To display GT Line dustproof/wa for transporting military and ele which are used by NATO Settsu Metal Industrial Co., Ltd. (#5206) will be showcasing Italian company GT Line's Explorer Cases, which are officially used by NATO forces. Explorer Cases are 100% dustproof and waterproof (IP67) truk cases that can transport delicate military equipment and electronic environments. Just as in last year's exhibition, Settsu Met display the ultra-light 19-inch rack cabinet re- high density packaging RGC cabinet red	ectronic equipment	Exhibiting waterproof housing/parts waterproof/dust proof equipment lighting equipment and LED light imagery, underwater fixed-point custom-built waterproof housing/ waterproof housing/parts and waterproof/dust proof equipment—from planning and design to manufacturing and sales—will be exhibiting their products with the aim of expanding their business. The main products that with	t such as LED s for underwater cameras, and	SDK for High Quality TV NTT Advanced Technology will exhibiting and demonstrating the lightweight, low-latency software codec SDK (HDVE-200SDK/HDVD-200SDK) fo high quality TV conference system at the NTT booth (#6401). Transmission of two way HD vio with 60msec delay.	er a b a a b a b b c b c c c c c c c c c c c c c	Exhibiting New Transcod MPEG-DASH (HVX500 se Line of AVC/H.264 IP Enc (MV5000 series) NTT Electronics displayed their media transcoder (HVX500 series), which now has MPEG-DASH functionality, as well as their high image quality and low delay HD video AVC/H.264 IP encoder/decode with IP transmission enabled MV5000 series at the NTT booth (# new product that was recently and Multi-Screen Video Demo Usine	ries) As Well As Their oder/Decoders
ETANI ELECTRONICS CO., LTD.	2012.11.12UP	Quantel K.K.	2012.11.12UP	Vinten Japan K.K.	2012.11.14UP	Autodesk Ltd.	2012.11.14UP
Exhibiting audio sound analyzer 'ASA-10mk ' which can measure speakers, and a convenient 'anal	device, the distortion of	Focuse on Pablo Rio, Enterprise and QTube products, showcasing technologies and solutions	sQ,	"Q-Ball"Pan/Tilt Camera Ultra-Compact Remote C	System with Control Camera	Autodesk Smoke with Int Visual Effects	
ETANI Electronics Co., Ltd. will be exhibiting an audio measurement devices such as the audio sound analyzer 'ASA-10mk ' and the iPhone/iPod touch audio sound analyzer application 'ASA mini.'		Quantel (#5312) will showcase its original technologies and solutions, focusing on three core products: Pablo Rio, Enterprise sQ, and QTube. At this year's NAB and IBC shows, the company focused on a theme of 'Beulting nest		Vinten Japan (#5310) is displayin their 11cm spherical "Q-Ball" ultra-compact pan/tilt camera system. It weighs approximately 1 kg. It is equipped with a 10X opti zoom lens and 2 megapixel CMO camera sensor. Vinten Japan is also displaying 1		Autodesk (#5616) is exhibiting their Autodesk Smoke with integrated editing and visual effects. In the later 2013 version, the UI, performance, and functions have been greatly enhanced. Connect FX includes functions for high-end users. It	

in the booth (#4612) of measurement using the 'ASA-10mk ' and the iPhone iPod touch application 'ASA mini'.

■The audio sound analyzer 'ASA-10ml

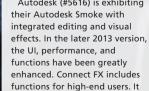
Demonstrations will be conducted

iterations of its products.



products and technologies poised to shake up the broadcast industry. At InterBEE, the firm will exhibit and demo the latest

Vinten Japan is also displaying their "Vision blue 5" camera support system that is compatible with the latest digital portable video cameras, and is equipped with a perfect balance stepless adjustment system, LF drag system, and weighs only 2.4 kg. In addition, they are showing their "ABHDRX" wireless transmitter/receiver.





costs only 535,500 yen. It is planned to be released in December. There is a demonstration of the latest version, and user case examples are given.

Information about the pre-release version, which has already been downloaded 35,000 times throughout the

Evolution,' announcing new

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Inter BEE Exhibition Report

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	Inter BEE Exhibition Report								Online Magazine Headline	
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	Sunmuse Corp. Audio-Visual Fusion Produce with Avid Sunmuse, which is sharing a booth with Avid (#4617), is introducing their "UNIVEL" de-reverberation and circul focuring plus in		Shibasoku Co., Ltd. VC7 Series Multi-Format Shibasoku (#7202) is exhibiting their VC7 Series of TV format converters. Features include motio compensation for suppressing jaggyness even when conversion is		P	Sony Corporation/Sony Business Solut Live Video Demonstration 4K Camera The Sony Business Solutions (#6211) exhibition is based on their three pillars; "4K", "File-base colutions" and "Live have " Their	ı of the "PMW-F55"	ATEN JAPAN CO., LTD. Matrix Switcher that can to 8 Systems ATEN JAPAN (#6310) is showing new products under their "VanCryst" ATEN video brand including their HDMI matrix	2012.11.15UP Coutput 8 HDMI Signals	
-	and signal focusing plug-in software by Zynaptiq GmbH, which is sold by Sunmuse. Compatible with formats such as Pro Tool RTAS (Real-Time AudioSuite), AAX (Avid A (Steinberg's Virtual Studio Technolo Avid is introducing their A/V integ version of their Interplay PAM (Proc is introducing a file-based workflow utilizing media.	gy). grated products such as the latest duction Asset Management), and	done for different frame numbers. Size (2U, 7 kg) and cost have been dramatically reduced. Because it is compact, it is easy to use at relay points and shooting locations.			solutions", and "Live base." Their "PMW-F554" 4K camera with the newly developed 4K sensor is capable of 4K live broadcasting. At their booth, they demonstrate live They also are exhibiting their new along with their existing 7000X. Th part of a compact and low-cost pro- be for live usage, but the 6500 can 7000X includes two switcher proces	broadcasting to a 4K monitor. w MVS-3000 and 6500 switchers he 3000 and 6500 switchers are bduct line. It is mainly assumed to also be used for editing. The	switcher, which is planned to be released at the beginning of December, and an HDMI extender that uses optical fibers.	ations of ALTUSEN brand products nonly used for transmissions such	
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	NIKON IMAGING JAPAN INC.	2012.11.14UP	Shotoku Corp.	2012.11.14UP	itian -	TVLOGIC	2012.11.15UP	ALVIX Corporation	2012.11.15UP	r
X	Digital/Film SLR Cameras Professional Features Nikon Imaging Japan (#7307) is appealing their latest D800 and D800E digital/film SLR cameras, and the video functions (D-Movie) of the existing D4. Both are capable of shooting in Nikon FX format at Full D 1920x1080/30p. The D800 series in particular has m including an HDMI mini terminal im to both the rear body LCD monitor same time, and ability to shoot unce In addition, there are many "NIKK lenses) that can be used for the D800	A secessary professional features terface, ability to output video and an external monitor at the ompressed video.	Tripod Head for Large Ca a Maximum Load of 90 kg SHOTOKU (#7207) is displaying their remote system, virtual device extendable cranes, heads, pedestals, and compact tripod systems. Their "SG900" tripod head for large cameras can handle a maximum load of 90 kg, and was developed based on their pursuit of movement. The pedestal contains a smoother movement, balance, and	s, a frigidity, usability, and smooth an air cylinder, which allows for		"XVM Series" of HD Displa The Korean company TVLOGIC (#7514) is exhibiting their "XVM Series" of HD displays with LED panel. They are available in four size; 17 inches, 24 inches, 32 inches, and 47 inches. The 17 inch model is compatible with 3G, and the quality of the backlight has been improved.	ays with LED Panel	Compact Device, Simple ALVIX (#6001) is displaying their new "DVS-10S" product for superimposing single SDI signals. With the software, typed text can be displayed in real time. 256×256 dot logos can also be displayed. The "DVS-109" model is compatible with 9 channels.	Drg-105	
		all the set							C POINT OF	
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	Fuchu Giken Inc. Self-Developed FM Transr be Used for Broadcasting f during Emergencies		GIN-ICHI CORPORATION First Prototype in Japan "Multicage Plus" GIN-ICHI (#6208), which handles	2012.11.14UP of the Chrosziel	· ·	AT Communications K.K. Auto Tracking Phase Arra Track Satellites and Comm AT Communications (#7301) is		At the Canon booth this time, they are exhibiting their latest 4K	Japan Inc. 2012.11.15UP Zoom Lens and 4K Display	
	Fuchu Giken (#6110) is displaying many self-developed products including transmitters and transponders for FM broadcast stations. "SA300 Series" FM transmitters and transponders, "SA-030-SS" variable frequency type community FM transmitters, ar	d "SA-001-SS" mini FM	overseas products, is displaying various camera support and accessory products including new Steadicam products for HD video (Steadicam Tango, Steadicam Zephyr HD), camera sliders made b the new brand Cinevate, Multicage by Tiffen, and monitors made by M Multicage Rus by Chroczial is aphil	Plus by Chrosziel, filters made		exhibiting two satellite communication vehicles that use a Nissan Elgrand. They are also displaying their latest CCT200 Series of transportable antennas that are equivalent to 2m, which is a first in Japan. CCT120 system antenna for vehicl	is a second s	HD equipment. The highlight of the exhibition is the demonstration of the EOS C500 with Canon's CN-E30-300mm cinema style zoom lens. It features 4K RAW image output and clear images at low see The recorder uses an astro desig confirming images is also exhibite At their booth, there is a section	n sitivity. n 4K SSD recorder. A 4K display for d for reference.	

type community FM transmitters, and "SA-001-SS" mini FM transmitters for variable frequency type broadcasts, and more. Multicage Plus by Chrosziel is exhibited for reference.

low emissions, low power consumption, low fuel consumption, and low heat generation. It is possible to use it at sites via a computer. An auto tracking phase array antenna that can track satellites and communicate while moving is also exhibit

At their booth, there is a section that introduces various lenses

and a broadcast camera system for outdoor news coverage during disasters.



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METAL TOYS 2012.11.15UP	SHINKI CORPORATION 2012.11.15UP	SANSHIN ELECTRONICS CO., LTD. 2012.11.15UP
Dolly with Tires that can be Replaced in 30 Seconds and "Beetle" Compact Dolly with a Maximum Load of 200 kg METAL TOYS (#5101) is mainly exhibiting rails and dollies at their booth. They are introducing a dolly with 8 air tires that allows one person to replace the tires in just 30 seconds. In addition, with their light, compact "Beetle" dolly, the pole height can be adjusted. Their rails are foldable and light for carrying,	FUNTERTAINMENT 4D "Mosaic System with Downful Auto Tracking Function SHINKI (#7408) is exhibiting PV studio Entertainment 4D. Application for auto tracking mosaicing. Mosaicing is performed by auto tracking the mosaic target based on computer analysis. Target on woment and rotation, and coming are analyzed automatically by a computer so that manual work can be reduced as nuch as possible. In addition to auto search, it is possible to manually switch to trace	SANSHIN ELECTRONICS (#7201) is system by LiveU that uses mobile lines. The LiveU series includes video transmistion portability, and multiple mobile video transmission is possible. It is ideal for newsflashes, live sporting events, weather forecasts, traffic information, mobile broadcast relays (motorbikes, cars, and trains), and broadcast relays for material transmission.
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S.C.ALLIANCE INC. 2012.11.15UP	Sakura Eiki Co., Ltd. 2012.11.15UP	FS-NET, Inc. 2012.11.16UP
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Circle Co., Ltd. 2012.11.15UP "SCORPIO'23" 7m Crane and Virtual CG Combination The broadcast rental company CIRCLE (#6109) is strengthening their sales of rigs and cases for various types of cameras. They are focusing on selling cases that are compatible with smaller cameras. At their booth, a "SCORPIO'23" 7 meter camera crane provided by their department in charge of special equipment contracting, and CG virtual images are combined to configure a collaboration system that synchronization crane movement with CG produced by the group company AIDCA, which produces CG for virtual compositing. It will be sold starting from	NextoDI Co., Ltd.2012.11.16UPExhibiting NVS-AIR, a backup device for memory card dataNexto DI (#6106) is showing the NVS-Air memory backup device. This product backs up data securely and reliably and therefore enables memory card re-use. The backed up data can be saved onto an external drive. The selling point is the cost reduction that it can realize, as it eliminates the need for numerous, expensive large capacity memory card.Rapid backup of 32GB in approx. 5 minutes	Agai Trading Corporation2012.11.16UPDroducts by Kobold of Germany "Cobalt HMI" tightweight Splash-Proof Compact Lighting SystemAgai Trading is exhibiting an al-weather type HMI metal-halide ight) by Kobold of Germany. It is possible to continue shooting because even if it rains suddenly, the power does not go out. At the kebukoro Office, it is possible to try the actual products anytime.
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ASTR	Magazine	Inter BEE TV 🔝	Magazine	Inter BEE TV 🔝		Magazine	Inter BEE TV 🔝	Magazine	Inter BEE TV 🔝
	UETAX Corporation	2012.11.16UP	KAMOI KAKOSHI Co., Ltd.	2012.11.16UP	-7. M-	Visual Graphics Inc.	2012.11.16UP	VIDEOTRON CORP.	2012.11.16UP
dness .		ommunication System that among Up to Four Divers	"mt foto" Universal Tape Used to Create Gray Ch	e for Shooting that can be aarts	HITA	File-Based Workflow - Meiji / Tape Library	Based on Server Solution y by ONKIOHAUS	"LDC-70HD/SD" Low with 2ch Simultane	idness Controller Compatible ous Measurement
TOLEI	UETAX is exhibiting their "SV-220" and "SV-1200" underwater communication systems. This equipment makes it possib to have communication between engineering divers that are underwater with their boat on t surface, and communication and	he ong	KAMOI KAKOSHI is exhibiting their "mt foto" universal tape for shooting. The adhesive removes cleanly when the tape is remove Also, the white, black and gray tapes can be used as a gray char There are three types and three sizes available including Highlig White, Standard Exposure Gray,	ed. t. ht		server that can share 2K and speed.	er and ling plution DNxHD data. WIRED SERVER is a 4K uncompressed serial files at high	is performed for SDI input 2ch simultaneous measure	rerence e, and r with an oudness controller, auto loudness control signals such as line video. It includes a ment function. Two languages and
R		er are installed inside of the diver's le to speak using the hand mic of ilarly, communication is possible			VIII VIII	is possible to view, search, an	ution for archiving shared video data. It ad preview the file server easily from a ting examples using Meiji / Tape		
	Sith the SV-220 com		60			RET		iso that can record to	Sector Se
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*	ComodoMattina, Inc.	2012.11.16UP	sachtler Japan Corp.	2012.11.16UP		hibino corporation	2012.11.16UP	YUASA CO., LTD.	2012.11.16UP
	"GLD" Digital Mixer Syst Console Maker ALLEN&	tem by the British Mixer &HEATH	World Debut of the New Carbon is Used to Reduc	7 High-End ACE "L" Series / ce Weight		JBL's "VTX" Series of I hibino (#4308) is exhibiting	Large-Size Line Array Speakers	for outside broadca	raulic telescopic pole system sting vans that supports
A. C.	and the 8 in/4 out "AR84". The connected via CAT5 Ethernet, an one package. The mixer can have up to 48 in	he btal wo k portion; the 24 in 12 out "AR84" audio rack and main mixer are ad the transmission system is also in aputs and 24 physical outputs, and it		the is sted turns ON for the level adjustment e dark. Aluminum was used for the		"VTX" series of large-size lin speakers. There is a demonst of the "VTX-V25", which is a line array speaker, with the "VTX-S28" subwoofer design go with the "V25". The VTX frequency portion. Two com single chassis. In addition, RE used for the midrange, and integrated smoothly without Its appearance is compact a	e array ration 3-way hed to series uses the D2 driver for the high pression drivers are coupled into a 81 (Radiation Boundary Integrator) is the high range and midrange are	(pan and tilt) of the anter contraction is possible to u	int, they with nsmission nce. It is ansion e as well as rotate and adjust the angle na by remote control. Expansion and up 15m.
	has 20 internal buses. For input p parametric EQ, compressor, limit			-		cardioid array.		This has been adopted in including commercial broa	a a great many broadcasting stations, adcasters and All
	Magazine	Inter BEE TV 🔝	Magazine	Inter BEE TV 🔝	Y 200	Magazine	Inter BEE TV 🔝	Magazine	Inter BEE TV 🔝
	Studer Japan Broadcast Ltd.	2012.11.16UP	TEAC CORPORATION	2012.11.16UP		LEADER ELECTRONICS CO		Rimage Japan Co., Ltd.	/Qumu, Inc. 2012.11.16UP
	"VISTA 1" Console for M Studer Japan Broadcast (#4308 exhibiting their "VISA1" console for mobile broadcasting, which i	s) is	TEAC's CD Drive Tuned "CD9010CF" High Quali- Broadcasting			LV5838 Audio Monito for Up to 12 Hours LEADER ELECTRONICS is	or that can Measure Loudness	Creator with Blu-ra	" On-Demand Optical Disc y Copying Function and ideo Distribution Solutions
	compact and easy to operate. There is a six-layer desk, and by one action it is possible to switch between all layers. "FaderGlow" slits, is equipped as a standard fe to eight colors according to func There are four layers on the co switch by one action. As with the 16 monitor selector, and large/sm monitor section. It is also compar	y , which applies color to the fader eature making it possible to set up ction. ontrol bay, and it is possible to e advanced VISTA5 model, there is a mall switching is possible for tible with 5.1. andard feature, and WAV files from	broadcasting. New Power Distributor The a exclusive functions from the exi	CD drive that has been tuned for AV-P series includes the domestically sting and popular AV-P series. thecker equipped, and it can be		displacement can be displaye Short Term, and Momentary By using the display functio	audio ing. ignals a be monitored for up to 12 hours. Time ed on a chart. Values for Longterm,	RIMAGE Producer series, c standard device for indust Blu-ray disc manufacturing	al disc e deo U Video iness use. 200N" is the highest product in the onsidered as the optical disc publishing rial use. Four drivers are included, and g capabilities have been newly improved. u-Loc" copy protection function for

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terrestrial digital broadcasts and RF signals. Normally, it costs 2,000,000 yen to 3,000,000 yen, but with the capture function it is less than 200.000 ven.

The "Digital Mobile News Gathering" remote broadcast relay transmitter by AVIWEST of France is f

mixing and recording systems that include necessary functions for live sound, live recording, and studio work. In the "StudioLive" family, "StudioLive 24.4.2", "StudioLive 16.4.2", and "StudioLive 16.0.2" are all exhibited. All three have the same operation style. It is similar to an analog mixer. By connecting

module can be

It is possible to input/output basebands from each terminal equipment, and the IP video router becomes the core equipment. In the IP routing system, control is possible based on priority. Baseband signals can be set as the highest priority, and 7 different priority levels can be applied to file signals

broadcast contents are recorded to SD cards. For commercial use, they are planning to add network functions and strengthen output functions.



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Magazine	Inter 822 TV 🔝	Magazine	Inter BEE TV 🔝		Magazine	Inter 822 TV 🔝	Magazine	Inter BEE TV 🔝
KOHKEN COMPANY, LTE Shooting Demonstrat for iPhone The KOHKEN group is demonstrating shooting with lens adapter for iPhone. In addition, they are exhib their new "KE101PT/KE101P twist pair cable extension for type HDMI. It can be embed into electronic facility boxes main body is compact, so it of	20. 2012.11.16UP tion with Lens Adapter the their htting R" or panel ded	Soho Corporation Demonstration of "Net A builds archives with opti and "Qunke," the softwar	2012.11.6UP ars-Q," which automatically atomatical disks from HDD, the installed with it: atomatical disks can now be atomatical disks can now be atomatical disks can now be atomatical disks from HDD, atomatical disks		IKEGAMI TSUSHINKI CO., LTD. Exhibition of a wide range equipment and reference of "Exceeded Technology" IKEGAMI TSUSHINKI introduced wide range of advanced broadcasting equipment with the theme of "Exceeded Technology" in five corners: Camera System, Transmission (Wireless / IP Network), System, Monitors and Fi In the Camera System Introduction was a demonstration of the Unical lineup that seeks high resolution a information cameras and ultra-high Network information cameras and ultra-hight	2012.11.16UP e of state-of-the-art products under the theme a a a a bieBase System. bn Corner at the entrance, there mHD system camera product and high reliability, as well as	TOKYO ELECTRON DEVICE LT Exhibition of "Real Time reference design by Xilin application built into AR TOKYO ELECTRON DEVICE exhibited "Real Time Video Engin (RTVE) OZ745," a reference desig by Xilinx, and "Zynq-7000," an evaluation kit application for broadcasting that uses FPGA built into ARM core manufactured by o	TD. 2012.11.16UP e Video Engine," a ax and an evaluation kit KM core ne n t OMNI TECS. that makes use of a real time video loys the KC705 evaluation kit using a swell as utilizing the generic
Magazine	Inter BEE TV 🔊	Magazine	Inter BEE TV 🔊	4	Magazine	Inter BEE TV 🔊	Magazine	Inter BEE TV 🔊
TOYO Corporation exhibit "Touch Monitor TM3-3G." T new loudness monitor made RTW being introduced into a for the first time. This is an SDI input-output monitor that is compatible u adopted a touch panel displ possible to freely layout the meter and start/stop/reset b	eanel loudness monitor editions in accordance with the operating buddness meter, peak meter, value uttons in accordance with the operating o layout the system easily because ten device in adver	Proposals for NAS-cente environments and 4K hig KYOSHIN COMMUNICATIONS exhibited products carefully selected from various solutions handled by the firm. In the Contents Production Corner, they introduced multi-application environments, such as Adobe, Ap more, centered on two types of I 5000" and GB Labs' "SPACE."	elected solution products: red multi-application digital signage apple, a NAS shared servers: AVID's "ISI environments and in Telestream's re exhiting		ANTELOPE AUDIO New ECLIPSE384 AD/DA the World's First 1U 32ch Antelope Audio is exhibiting the ECLIPSE384 and ORION32 AD/DA converters, which were announced last year. The ECLIPSE384 includes a cue/m function, and is designed to be an all-in-one type studio core. Three analog systems, three AES systems two SPDIF systems, two optical sys connected. As for monitor speaker and Small) can be connected. The ORION is the world's first 10 There are analog input/output ter	AD/DA Converter	a broadcast distribution Capella Systems exhibited two new products: "Cambria Live Studio," a software-based all-in-one live distribution system and "Cambria Live Broadcast," ar Internet broadcast distribution system. "Cambria Live Studio" is able to	"Cambria Live Broadcast," system system
Magazine	Inter BEE TV 🔊	Magazine	Inter BEE TV 🔊		Magazine	Inter 322 TV 🔊	Magazine	Inter BEE TV 🔊
Simple to set up mas a disaster: A digital t	quipment Co., Ltd. 2012.11.16UP ter equipment in the event of terrestrial emergency relay ws the required minimum	Panasonic Corporation New P2HD Product AG- Memory Recorder The Panasonic Group (#7308) is exhibiting their concept of "Link together Link to the future			TAC SYSTEM, INC. Exhibition of the "ANDIA converters that enable th each channel TAC SYSTEM gave an exhibition centered on ProTools and		YAMAHA CORPORATION Exhibition of the latest of that are an accumulation and expertise YAMAHA exhibited their CL ser which are the latest digital mixer	n of 25 years of technology

exhibited a portable digital terrestrial emergency relay transmitter. This transmitter is equipped with all-channel transmission/reception conversion. and an OFDM modulator and

rubidium oscillator. This transmitter can be used as a replacement when there is interference with the transmissions of broadcasting offices.





network collaboration is proposed through their P2HD series, AVCCAM, and HD system equipment. The AG-HPX600 memory card / camera recorder is on display as a new product in the "P2HD" series. Also, in the "AVCCAM" series, many solutions are introduced including the AG-AC90 memory card / camera recorder. Lens mount is 2/3, so existing lenses can be utilized. The new body weighs less that

AVID-related devices. The MADI converter "ANDIAMO 2 Series" that was displayed as a new peripheral is a product which enables matrix

settings of various inputs for outputs with each channel.

Furthermore, this is a device for switching modulation and matrixing keyboards, mice and displays as a studio control system. Control is possible by moving back and forth between multiple computers with one keyboard. This c





This follows the M7 series. The effector comes with functions from collaboration with Neve that is called the premium rack.

There was also a display of the STM

In the operational format, intuitive operations are possible with a touch panel as a product that has brought together the digital mixer technologies of YAMAHA that have been accumulated over 25 years.

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freeze, loudness and PSE flicker. Dolby loudness compensation has been installed, so if the average loudness is high, a file will be created that has revised this to the correct value.

The "SPG8000" is a new TV sync generator that newly doubles the power supply, allowing for hot-sw

Magazine	Inter 322 TV 🔝	á	
Hitachi Kokusai Electric Inc.	2012.11.20UP		I
Demonstration of digital	nadio broadcasting at		1

90MHz-108MHz with a V-Low multimedia transmitter: Realization of a compact and high performance power amplifier

a V-Low multimedia transmitter. This is a new digital broadcasting system that utilizes the vacant space of analog television

broadcasting, road information and disaster prevention information was given in the 90MHz-108MHz bandwidth that corresponds to VHF channels 1-3. Three 400W power amplifiers (PA) ncrease power up to 1.2KM for t

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Magazine Intera	322 TV 🔝 📕	Magazine	Inter BEE TV 🔝		Magazine	Inter 322 TV 🔝	Magazine	Inter BEE TV 🔝
NIXUS Hokkaido Nikko Telecommunications, Co., Lto	d. 2012.11.27UP	Carl Zeiss Co. Ltd.	2012.11.28UP		CTCSP Corporation	2012.12.4UP	IDK Corporation	2012.12.4UP
Exhibition of the 4K/8K-compatible "CG-Store"	telop system		es of mount, including PL, rds: 15mm to 135mm focal t Prime 2" series		Exhibition of live stream U.S. firm Elemental: Real processing utilizing GPU	lization of high-speed	Exhibition of a solution transmissions of 100m or the installation costs of	r more: Appeal to reduce
Hokkaido Nikko Telecommunications exhibited the telop system "CG-Store." Last year, this was compatible only with HD, but this year, it now supports 4K/8K. It is possible to create movie subtitles and captions easily with the sense of cre- captions for television news programs through th This system is equipped with an ASTRODESIGN bc possible to output 4K subtitles and captions with The CG-Store delivery applications allows the st	his same product. bard and so it is SDI signals.	In addition to traditional product such as the "Compact Prime" series which is a reputable fixed focal length lens, Carl Zeiss exhibited a great number of new products in the series. These new products wi be launched in order from next yet Exhibition of the latest lenses to The "CP. 2 Super Speed T1.5" and	tts es, Hear.		CTCSP, a group company of ITOCHU Techno-Solutions, exhibited encoder products from the U.S. firm Elemental Technologies. Elemental developed a technologies (GPU) of encoding technologies d to significantly reduce the costs o because processing of full high de	by that performs multiple using a graphics processing unit leveloped by this firm. It is possible of constructing a streaming system efinition quality video can be	simplify equipment confi IDK exhibited the "HDMI Cat6 Extender/Divider System" in the firm's "HDMI Cat6 Transmission Solutions." Usually, HDMI signals can only be extended up to 5m, but up to 100m is possible at 1:1 and up to 60m at each level can	iguration s
subtitles and captions for each item.		Prime" series. These have lens size			performed in one tenth the time		Large-scale digital signage can	
Magazine Intera	BEE TV 🔝	Magazine	Inter BEE TV 🔊		Magazine	Inter BEE TV 🔝	Magazine	Inter BEE TV 🔊
Yokogawa Digital Computer Corporation	2012.11.28UP	ELECTORI CO., LTD.	2012.11.29UP	The summer of	HEIWA SEIKI KOGYO CO., LTI		MEDIAEDGE	2012.12.5UP
Exhibition of the "Satellite Area PRU a relay station monitoring system that the electromagnetic wave situation a audio/video of a broadcasting area at Yokogawa Digital Computer exhibited their new satellite area	at monitors nd	A wireless intercom mad SUNGJIN that allows add low cost to existing syste ELECTORI exhibited a wireless intercom using the 2.4GHz bandwidth by the South Korean	ditions and expansion at		Exhibition of new large to series: Significant impro- the introduction of a ster and stabilizer HEIWA SEIKI KOGYO exhibited the "RSP-850" and "RSP-750c"	vements to operability by	Demonstration of 4K vid transmissions: First exh products, including the I "Video Pro" MEDIAEDGE exhibited the "HDSS 4/m1" a video player the	ibition of various new low-cost converter
PRUS+. In contrast to traditional relay station monitoring systems that monitor only the measured values of electromag new product allows the monitoring of all of vide measured values of electromagnetic waves. Alth monitoring devices have been installed in relay s	eo, sounds and lough unt <mark>il now</mark>	firm SUNGJIN. This makes it possible to have compact system operations even outdoors because both the master unit and subordin The introduction costs of this syste products from other firms. The may wired intercom. Users can add a w systems by connecting with an exit	nate units have a compact shape. em are lower than that of 2.4GHz aster unit has an interface with a vireless intercom to their existing		which are new products in their R Plus series. The RS Plus series is unchanged from the traditional R series but is a bigger and greater version equipped with pan and ti 40 degrees to plus 60 degrees with balance system which does not sta	ts Example 2 and a step-less counter op at any angle.	cameras were captured by an end displayed which had been received	or K signage system corner. At the en in which HDMI signals from four coder and with video then ed by the network-compatible 4K
become possible to carry out transmi		lesdinete de			These are products supplied as a		live video transmitter "MEDIAEDU	
Magazine Intera	322 TV 🔊	Magazine	Inter BEE TV 🔝		Magazine	Inter 322 TV 🔊	Magazine	Inter BEE TV 🔝
audio-technica corporation	2012.11.30UP	Keisoku Giken Co., Ltd.	2012.11.30UP		Rovi Corporation	2012.12.5UP	JAPAN MATERIAL CO., LTD.	2012.12.5UP
Exhibition of the side address microp "AT5040" that is suitable for musical sound collection: Achievement of a h of minus 20db by coming with four co	instrument igh sensitivity	Exhibition of a prototype Scheduled for release in Keisoku Giken exhibited a prototype of a 2K 4K up-converte			Demonstration of "CODE HEVC and Sony's XAVC: Enterprise" that support Rovi exhibited "MainConcept	Exhibition of "TotalCode	Exhibition of the 4K-com "Maevex" by the Canadia multi-view capable of spl signal systems on HDI m	in firm matrox and a lit displays of four HD-SDI
audio-technica exhibited "AT5040" which is a side-address microphone for the sound collection of musical instruments. Ordinary condenser microphone units have a circular shape, but this product has in by linking four rectangular units (2 microns). This		unit that adopts super-resolution technology. A compact A5 size ha been achieved for this unit and signal processing technology is employed that has been independently developed by Keis unit is scheduled to be released ir provide plans of evaluator units p	oku Giken. The super-resolution n February 2013. There is a plan to		CODEC SDK," a development too that supports standard codecs, formats and streaming. The tool also features a new HEVC-compatible function. Moreover, in the "MainConcept of is compatible with Sony's XAVC a decoding.	CODEC SDK Broadcast Version" it	JAPAN MATERIAL exhibited a m multi-viewer "MicroQuad" from the Canadian firm matrox. This makes it possible to split and display four HD-SDI signal system on HDI monitors.	
that optimal performance can be obtained in rece largest unit in the history of audo-technica which size of standard circular units. Ordin	ording. This is the	This is the 4K HDMI-compatible UDR-N50A. Output is possible in a	compact uncompressed recorder		In addition to this, the server d "TotalCode Enterprise" that was			n real time. This is compatible with stribute 4K/2K video by

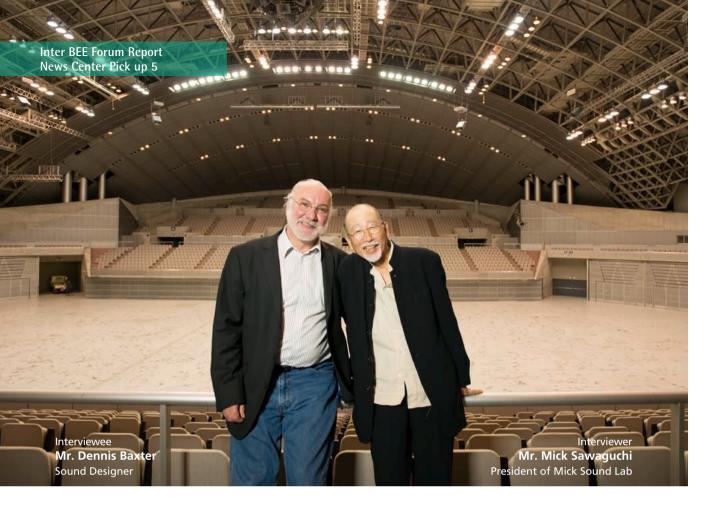
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m	Magazine InterBEETV	Magazine	Inter BEE TV 🔝	and an interest	Magazine	Inter 822 TV 🔕	Magazine	Inter BEE T	🗸 🔯 🔤
	HYPERTOOLS CO., LTD. 2012.12	SUP YOSHIMI CAMERA CO., LT	D. 2012.12.5UP		IMAGENICS Co., Ltd.	2012.12.24UP	M&I Network, Inc.	2012.12	2.25UP
	Exhibition of the VGA splitter with bandwidth extended to 730MHz and a DVI-VGA converter t allows EDID settings with a DIP switch		-	US	"RS-1550B" that is equip video rotator function i		"SE-2800" manufactur	nput-compatible switche ed by the Taiwanese firm dio delay box "AD-100" t EC	m 🔤 🗌
	HYPERTOOLS exhibited a variety of new products; sound/video extenders, splitters, exchangers and converters. The high-end VGA/audio splitters "SP-VS 102A," "SP-VS-104A" and	YOSHIMI CAMERA exhibited time-lapse photography elect dolly called "Samurai."	ntrol		IMAGENICS exhibited the "RS-1550B," a DVI/HDMI frame synchronizer. In addition to the traditional frame synchronizer a scan converter functions, this comes with a rotator and extern	and DVT7L-A>>70744 R5-15500	M&I Network exhibited the "SE-2800," a HD/SD switcher manufactured by the Taiwane firm Data Video, and "AD-100 audio delay box.	se	
	"SP-VS 102A, SP-VS-104A and "SP-VS 108A" had a traditional bandwidth that was compatible with 300MHz to 350MHz, but support is now provided up to 730MHz. There was a demonstration in which the same video w projected on two screens.	dolly from December. The fea	I control electric dolly and time-lapse ture of these products is that they can d control is also possible with a 0.1	F		ons are possible. It is now possible pomatically to the resolution set by	12-screen displays enabled th	atible and supports 12 inputs with rough 2-screen multi-previews. Ti Ilion yen; the 8-input version is 1.	'he ba
					ror DataBroad	ST 😤		Dist	
	Magazine InterBEETV	Magazine	Inter BEE TV 🔝	2	Magazine	Inter 822 TV 🔝	Magazine	Inter 822 T	v 🔝 🚺
	Suyama Dental Laboratory. Co., Ltd. 2012.12	FUYOH VIDEO INDUSTRY	CO., LTD. 2012.12.11UP		SYNTHAX JAPAN INC.	2012.12.25UP	Tec's Inc. / Intec's Inc.	2012.12	2.25UP
	Exhibition of the animation viewing series "Mon in the "FIT EAR" brand of ear monitors for individuals that are produced by taking a mold of their ears	32×32 matrix switcherfminiaturization to 1U	89130" and "DSR9030," new rs: Realization of by the adoption of a DIN		a MADI recording soluti	ration of "HDSPe MADI FX," ion that is e and supports up to 390ch		nch viewfinder manufact PHATRON that has adop	
	Suyama Dental Laboratory manufacture custom ear monitors that fit individuals by taking a mold of their ears in the "FIT EAR" brand. Traditionally, these products wre supplied as commercial ear monitors for music events, but in recent years, there range of usage has been extended to include video production sites and applications for listening to music.	also shortened and this is suit	432 duce ption		SYNTHAX JAPAN exhibited an demonstrated "HDSPe MAXI FX, MADI recording solution. MADI (Multichannel Audio Dig Interface) is the standard for au signal interfaces. The AES/EBU standard has been extended to a allows 125MB of data to be tran and coaxial cable. Long-distance multi-channels are supplied by t accuracy of sample units. The in-	," a gital dio support multi-channels and this issmitted through a BNC terminal e audio transmissions of the simplest method with an	on-board cameras, there was with an MTF lens mount conv	h phic of rigs ie to at are handled by Tec's. In the rig a showcase of the "PMW-F3" ins ersion, "PMW-F3 equipped with ens and a "EOS C500PL" that com	a new
								1-01	
	Magazine InterBEETV		Inter BEE TV 🔝			Inter BEE TV 🔝		Inter BEE T	
	NIHON ELECTRO HARMONIX K.K. 2012.12.1 Exhibition of the FairComp-670, a replica of th Fairchild Comp 670: Demonstration of the albumastering sound source of nokko NIHON ELECTRO HARMONIX exhibited "FairComp-670," a	The color system "IS- the shooting of the mo Equipped with multip matching function FUJIFILM Corporation PHOT			was used in the London FIRST ENGINEERING exhibited Al server "Sapphire Touch"	control server factured by AVOLITES that Olympics	manufactured by MOO device "Avid Motion O TOTSU INTERNATIONAL exh the file-based ingest/digest sy	S system "mxf SPEEDRA G and the real time 3DCC traphics"	IL"
	compressor manufactured by the German company MODE MACHINES. This is a replica of the "Fairchild Compressor 670" that has been called the "vintage compressor" and which has been u as high-end equipment in the world's leading recording studios since the 1960s. The "Fairchild Compressor 670" is a compressor utilizes no less than 20 vacuum tubes. Few of these actual maching	exhibit. hat The "IS-100" is a system that	ns for ns. Example 1 and	0	console table in the world from software "Capture" and the late	the s of powcase of the best-selling lighting		many em" 2012 e each component required in	
1	exist and they are said to have a market price of 30,000 dollars of more even today.		ion monitor color control. The "IS-100		trusses.		file-based workflows into a si file-based solutions. It is possi	ngle platform and so provides ide ble to increase	eal

112 miles



2012 was the year of the quadrennial Olympics. A session entitled, "Audio System Construction for Large-scale Sports Events such as the Olympics" was held at the Inter BEE Content Forum 2012 to coincide with the Olympic year. In addition to being the world's largest sports festival, broadcasting the Olympics requires the construction of the most complex and advanced audio production system in the world.

Mr. Dennis Baxter was in charge of sound design at the London Olympics. Mr. Baxter went independent after being in charge of Olympic broadcasts at NBC, and has worked as a sound designer at large-scale sports events including the Olympics.

He has served as a sound designer at 8 Olympics including Atlanta (1996 Summer Olympics), Sydney (2000 Summer Olympics), Salt Lake City (2002 Winter Olympics), Athens (2004 Summer Olympics), Turin (2006 Winter Olympics), Beijing (2008 Summer Olympics), Vancouver (2010 Winter Olympics), and London (2012 Summer Olympics). He has also worked as a sound designer for hundreds of sports events, such as the World Cup and NASCAR, and he has won 5 Emmy Awards for sports program audio engineering. He is the No.1 sound designer for sports outside broadcasting.

At the session Mr. Baxter introduced sound systems he designed for the London Olympics. In addition, problems that actually arose at events and their solutions were discussed, and a wide variety of sports event presentation techniques were described in detail.

The interviewer, Mick Sawaguchi, has served as a TV drama mixer for NHK and has overseen a wealth of internationallyacclaimed works that have won awards such as the Arts Festival Grand Prize, HBF Award, IBC Nombre d'Or Award, and Vatican Hope Award. He has worked hard to develop surround sound and held many workshops, seminars, and technical presentations mainly at the AES Convention. He served as the Director of the Program Production Engineering Center in 2003.

He is the leading expert in surround sound and is well-known in the professional audio industry both in Japan and abroad. For example, he was given the name, the "Master of Sound", by JAS for his services to audio. After leaving NHK in 2005, he taught sound design at the Tokyo University of the Arts, Department of Musical Creativity and Environment via a position as an audio promotion advisor for the Pioneer Corporation. He then presided over the "Surround Terakoya Lab" to teach and spread surround technology. Through his activities at the Surround Terakoya Lab he won the "AES JAPAN AWARD" (2009) and received the Japan Audio Society Award for "Investigation into Allowance of Home-theaters' Surround Speaker Placement for Acceptable Perception of Reproduced Sound" in December, 2012.

When it comes to professional sound, Messrs. Sawaguchi and Baxter are two of the best in the world. In this interview, Mr. Sawaguchi asks Mr. Baxter about technical issues in sound design as well as his thoughts as a professional working on the front line of the sound design profession.

Bringing out the best of all 60 Olympic events through sound

Overseeing sound design for 8 Olympics over 20 years

Sawaguchi: "Tell us about your previous work experience."

Baxter: "I have worked as a freelance engineer in the broadcasting industry or to be more precise, sports broadcasting, for about 35 years. I have had the honor of doing this great job all over the world. In particular, my work with the Olympic Committee has lasted for about 20 years. I started fully operating as a sound designer for Olympic projects from the Atlanta Olympics in 1996, so Sochi will be my ninth."

Sawaguchi: "You have gained vast experience at the Olympics ranging from analog to 5.1 surround. What events led to your involvement with sound for sports programs?"

Baxter: "I worked as a mixer for outside broadcasting programs at NBC and was in charge of outside broadcasts at the Seoul Olympics for NBC in 1988. From the next Olympics at Barcelona in 1992 a new management structure and organization was put in place and I started working full-time for Olympic broadcasts. At that time I was introduced to Mr. Manolo Romero, who was in charge of Olympic broadcasts, and it was then that I felt that this was the job for me."

"At the Atlanta Olympics in 1996, the Olympic Committee started recruiting large numbers of specialists in areas improve and increase the scale of Olympic broadcasts. TV viewers and sponsor companies applauded the move. Efforts made at that time set the standard for Olympic broadcasts."

such as video & lighting and sound to

Bringing out the best of up to 60 events through sound

Sawaguchi: "What difficulties did you undergo at first?"

Baxter: "Because I had been in charge of outside broadcasting in the beginning, I didn't really understand what was required for the Olympics. All of a sudden I was made the planner and just the act of going to the office was hard. When I first started working for Olympic broadcasts, I was really surprised at the number of events there are 60. So, to begin with I had to learn about these events. I watched previous Olympic video archives and analyzed the main points of each event." "The biggest challenge at first and something that was very important was working together with sporting organizations including FIFA and FIG (International Gymnastics Federation). Each sporting event has many restrictions when it comes to broadcasting, so it was necessary to get approval from each sporting organization when filming these events. For example, attaching a single microphone required approval. Building a good relationship with

sporting organizations enabled us to get approval smoothly. I spent a lot of time at first building good relationships with sporting organizations, broadcasting people, and audio crew."

"In actual fact, at that time most of the 60 events hadn't been broadcast on TV. Also, different sports are popular in different countries – for example, judo is big in Japan, archery in Korea, table tennis in China and so on. It could be said that the Olympics is a place to present and make such sports more popular internationally. Sound design has an extremely important role in bringing the best out of such events."

"At the London Olympics we got complaints from gymnastic organizations that the sound of each athletes' actions when competing was overly-vivid. However, I rejected this saying that it was what the viewers wanted. Viewers don't watch the broadcasts at a theater but rather indoors from places such as the living room, kitchen, and bedroom, so I explained that they want to hear all those intricate sounds from the athletes' breathing, shaking hands, and expressing emotions. It is my job to present those intricate sounds for the sake of sound expression. If sounds from the venue can be relayed so precisely, a commentator will be superfluous."





Introduction of digital sound for the London Olympics

Sawaguchi: "What will your future role at the Olympics be?"

Baxter: "In addition to sound design work, which I previously did at the Olympics for a long time, I have worked alone in sound production as well as the numerous jobs involved with its related technology. However, I increased the number of staff for the London Olympics because the workload has continuously increased. For the London Olympics I concentrated my efforts solely on sound production. I was able to look at the overall picture by focusing on high-quality Olympic sound that will take us to the future."

"At the London Olympics we used nothing but digital outside broadcast vans and peripheral equipment for the first time. One person commented that it was the best sound they had ever heard at the Olympics". I replied that that's because the high-quality sound was all created digitally."

"Now that the London Olympics has finished, I am in the process of coming up with some good ideas for the next Olympics in Brazil. While watching the Olympics in close detail, I got a clear vision of what I want to do. To achieve that vision I will be working on technical improvements and computer program enhancements while building a collaborative partnership with various sporting organizations. I will also present some new ideas on broadcasting improvement to sporting organizations."

Sawaguchi: "What has inspired you to carry out sound design over many years for large-scale sport events such

as the Olympics?" **Baxter:** "I love a c

Baxter: "I love a challenge. I knew it wasn't going to be simple and it took me a long time to understand the reason for this. I have carried out broadcasting jobs by using methods that suited me and were an improvement on previous methods, and I continue to feel like this towards the Olympics. This has made me the person I am and I still get a buzz from doing things in a fresh and unusual way."

"The Olympics is a special event to many people. One of the things that has developed with the Olympics is sound. However, while video has developed at an astonishing rate hand-in-hand with the Olympics, the evolution of sound is lagging behind. Consequently, sound is now attracting a lot of interest. Producers need to recognize that sound is crucial to make better programs."

Deepened trust of Olympic work through Audio-Technica collaboration

Sawaguchi: "Do you collaborate with Japanese manufacturers?"

Baxter: "I was introduced to a company called Audio-Technica by a contact from Panasonic in 1997, and I have been working with them ever since. That meeting was a great opportunity for both of us. I am very grateful for and proud of this excellent relationship."

"When I suggest something they give me the immediate go-ahead and think about how they can help me." We worked together at the Atlanta Olympics and also at Sydney. For example, if I request more stereo microphones, they have them prepared for me one year later. Audio-Technica has a great deal of trust in my vision."





It is the family watching TV at home that is the real valued "customer"

Creating sound that will satisfy the viewers at home

Sawaguchi: "What point did you most want to make at the Inter BEE 2012 session?"

Baxter: "An important point is that we mustn't forget the viewers at home. The TV viewers at home make up a large proportion of viewing figures. The actual situation, however, is that most peoples' audio equipment is disorganized and that equipment setup such as matching equipment is not carried out. We professionals should always keep these people in mind. I haven't been able to set about achieving a perfect surround sound for such an environment."

"What I am proposing is a 4.0 mix which can be effective in such an environment. LFE is often misinterpreted. The real meaning of LFE in movies is "low frequency effect." It is not "low frequency enhancement" as it is sometimes misinterpreted by people in the TV industry. Although there seems to be a negative opinion of LFE, I think that sound development has progressed beyond 4.0. As long as the sound expresses even the most intricate sounds, one does not have to sit in the best place to enjoy it."

"I think that we should return to the past and have stereo 3D sound that uses DSP. And then change that to a surround format. Adding devices to the back of speakers would expand sound and create a theater-like effect. This would enable an extremely well-balanced sound wherever one sits."

"Although there are opinions refuting this logic, I think that this technique would reduce the restrictions caused by viewing positions. If everyone is in a theater environment this would not be necessary, but the situation is different in actual households. We must never forget our real customers – the general viewers."

Sawaguchi: "That's a very important point."

Baxter: "Ordinary families watching TV at home are my real customers. If customers are happy then it's all good. I do my mixing work for viewers and I intend to do whatever I can for their enjoyment."

"I think this is a highly artistic and creative job like that of a painter or artist. A different color can be drawn by using a different microphone. My wife is an artist and it was she who compared sound to a color. It could be said that we are "soundscape' creators who are working with a beautiful paint called sound." Inter BEE Forum Report News Center Pick up 6

Interviewer Mr. Hideichi Tamegaya Professor of the Joshibi University of Art and Design Graduate School, Design Course (Media Art)

Interviewee Mr. Rodney Grubbs NASA Digital Television Program Manager

The Visual Symposium, "Feel the Mysteriously Beautiful Universe! ~ Evolution of Visual Technology with High Sense of Realism ~" was held on November 15, the second day of the Inter BEE exhibition. It introduced the latest space visual technology such as the NASA space visual system and visualization of image data sent back from the JPL (Jet Propulsion Laboratory) Mars Robert.

Rodney Grubbs, the NASA Digital Television Program Manager came to Japan to introduce NASA activities to the general public with images using valuable photographic materials and CG.

Mr. Grubbs defined such activities as "sharing things that the nation can actually relate to while helping to improve the work of scientists and engineers. He also pointed out that introducing advanced technology via images "contributed to scientific progress and education."

The interviewer for the interview will be Mr. Hideichi Tamegaya, a Professor of the Joshibi University of Art and Design Graduate School who acted as the Visual Symposium coordinator. While holding a post at NHK he was responsible for Hi-Vision video production, which was the most advanced broadcasting technology at that time. He also pioneered program production techniques with leading-edge video technology, such as the latest program production that makes use of technology synthesizing Hi-Vision CG and photographed images. Due to suggest applied by Mr. Tamegaya, NASA included Japanese-made hi-vision cameras in its space shuttle. While keeping his feet on the ground, he has contributed to the vivid images of our planet beamed back from space.

Mr. Tamegaya, who has forged a close relationship with NASA in visual production over a long period, asked Mr. Grubbs about the role of visual communication at NASA and Japanese visual technological capability focusing on future NASA activities and Inter BEE exhibitions.



Sharing space development results with images raises staff morale

"I want to show the real space to the nation"

Tamegaya: "Thank you for taking part in the Inter BEE 2012 Visual Symposium. What was your impression of the symposium?"

Grubbs: "I felt that it was a perfect bridge between technology and art. I have worked as an art producer and been involved in content production, but I am now a more technologicallyinclined person."

"At today's symposium I spoke logically about how technology has been useful. Those of us pursuing technology in a variety of related fields including science, art and education are very grateful for this symposium because I think it is crucial to merge all of these things. I am particularly focusing on 'real-time' and 'live programming.' If this technology continues to progress, we should be able to broadcast live from the space craft in Super Hi-Vision. That would be fantastic."

"If the technology progresses, cameras and compression technology will evolve. This will enable artists to create spectacular visualization. I was very impressed when I listened to everyone who took the rostrum at the session explain how asteroids, comets, meteors and everything in the solar system interact by using actual and visual data. If we had more time, I would have liked to talk about my involvement with film-making and how I have contributed to other peoples' excellent works over the past few years."

Tamegaya: "You're in the visual department at NASA where you're trying to communication visually with the tax-paying general public as well as children. Is it important to approach this from a certain angle in order to appeal to viewers?"

Grubbs: "Yes. It's the same for Japan, but American taxpayers are paying for everything we do including spacecraft and staff. So, it is important to give them something for their money."

"The NASA charter reads: 'Everything created by NASA is the property of the American public.' Therefore, we must share something that the American people can actually relate to rather than an abstract thing. And at the same time, we help to improve the work of scientists and engineers."

"It's a great honor to be involved in the space program because I can make a contribution to scientific progress and education while providing taxpayers with something for their money."

Tamegaya: "I saw a video on YouTube of the space shuttle being carried on a road near Hollywood. The American people really like the space shuttle don't they. What do you think about that?"

Grubbs: "When seeing a space shuttle of that magnitude so close-up, it must make people wonder how such an enormous object can fly up to space. In a sense, it would be deeply moving seeing it close-up in something like high-definition video. By seeing it close-up, one would feel for the first time the incredible power of this enormous shuttle that travels to and from space."

"This scene reminded me how great it would be to show real space to people because they are really interested."

"The number of launches and launch sites increase with private participation"

Tamegaya: "I saw a shuttle launch at Cape Canaveral a long time ago. I was very impressed at the godlike light generated by the shuttle. Many people want to see the shuttle launch from tourist locations as well. What do you think about the future visual system of NASA?"

Grubbs: "I think that NASA space crafts will continue to be launched from Cape Canaveral in the future. And I think that rockets will continue to get bigger, meaning that people will have to be positioned even further away from launch sites. As a result, Hi-Vision images or Super Hi-Vision will become extremely important. The larger the ship the greater the danger. Rockets will become larger than Saturn V."

"Commercial space craft from companies such as SpaceX, Orbital Sciences and Virgin Galactic will soon be launching from private bases and facilities in Texas, New Mexico and the coastal areas of Virginia & Delaware. By doing so, there will be a greater opportunity for many people to see space craft launches. They will be able to witness firsthand the power of the real thing and its awe-inspiring light. It's hard to describe to someone who has never seen it with their own eyes. It's a spectacular scene."





"Uniting the world through international joint development on space"

Tamegaya: "When will NASA launch its next rocket?"

Grubbs: "A large-scale rocket is under construction and we are currently thinking about the mission details. I'm only guessing, but I think that it is inevitable we will return to the Moon and Lagrangian point. We will construct a spaceship to go the Moon, Lagrangian point and Mars. I think that Mars is an inevitable destination, however, I don't think that the U.S. will do this alone. It will be a joint project with numerous countries. I think this will be an international spaceship."

"The reason being is solar system space exploration will be done on a global scale and I don't think that the government of one country alone could afford to do this. I don't think there will be lunar surface pictures taken solely by NASA any more. Spacewalks will probably be carried out in partnership with Russia, the EU, China and various other countries such as Japan." "I am 46 but I still have the desire to go into space. Of course I would have

more chance to go if I was 26. Unlike war, joint space exploration could unite the world." **Tamegaya:** "That's right"

"Fully-equipped TV program production environment in NASA Centers"

Tamegaya: "Is there a group in NASA in charge of visual programs?" Grubbs: "We have a Public Affairs Department. Each NASA Center has a fully-equipped environment to make TV programs. This mainly includes programs about science and engineering at each center, but educational programs are also made."

"To give you an interesting example, I could talk about the transit of Venus. It is a very rare, fantastic event, so many people from various centers including the Jet Propulsion Laboratory, Marshall Space Flight Center, and the Goddard Space Flight Center got involved. We placed a camera at the peak of a volcano in Hawaii, filmed it in 4K in real-time, and showed it via a live stream on NASA TV. This video was distributed with a story while switching regions across the world. This illustrates how a story can be composed in real-time while adding scientific data there and then in real-time."

Transit of Venus shot in 4K and broadcast live on NASA TV in real-time

"Special educational programs can also be produced"

Tamegaya: "Your department is linked to the media group, NASA TV, isn't it? How do you communicate with each other?"

Grubbs: "All NASA TV producers hold a weekly conference call to tell each other about ongoing advancements. People on the technical side organize the necessary technology and infrastructure based on this. For example, going back to the transit of Venus I just mentioned, my team secured the Internet environment weeks beforehand and setup the satellite time. With all systems in place, our live show was able to switch between every place."

"Content producers and technical people also communicate once a week. We can, therefore, identify major events weeks or months in advance."

"We also have special education programs that we document live such as robot and moon buggy contests." **Tamegaya:** "Are you the manager of

NASA's visual group?" **Grubbs:** "Yes, I am. I am responsible for the technical relationship between each

center of the NASA Digital Television Working Group. There is also a Web Video Working Group and previously broadcast programs are available on the Internet as a streaming video." "Recently, a group handling static images was set up, so we now have "My job is to assume responsibility for the development of a mutually-supporting infrastructure, enabling general workers, scientists, and engineers to exchange contents. This is extremely important, but if there are no contents they cannot be distributed. Contents are a prerequisite."

static image, web and video contents."

"Proposing techniques for better products with a focus on 4K and HEVC"

Tamegaya: "Do people involved with contents want to use high-quality images? Have you had any requests for new facilities to accommodate this?" **Grubbs:** "Sometimes. Technical people have progressed further than contentrelated items. For example, we are focusing on 4K and HEVC. We are looking beyond the issue of content production."

"By looking into the future, we have been able to propose techniques for good products such as better infrastructural facilities and cameras. This means that content providers will follow." "We must move forward at NASA. Official people rarely take the lead and come and say, "I want to do something like this." Normally, we make proposals by saying "can we do this by doing it like so".

"We frequently work in partnership with Japanese manufacturers and broadcasting stations"

Tamegaya: "Have you developed some new system for collaborating with Japanese industries?"

Grubbs: "We often collaborate with the Japanese industry. On the subject of the 3DA1 camera that flew into space, we had discussions with Panasonic about whether we could make slightly more interesting content with 3D. We decided to make it the authorized camera for our journey into space after discussing what would happen if we took a 3D camera to the space station. This was our collaboration with Japanese companies."

"Such collaboration is extremely beneficial and has continued for many years. We have worked in partnership with Japanese companies carrying out technological developments including Panasonic, JAXA, NHK and Sony."

"So it is a really great opportunity for us to be able to take part in events such as Inter BEE that allow us to calculate the future."





Inter BEE Content Forum 2012

Venue : International Conference Room, 2F, International Conference Hall, Organizer : Japan Electronics Show Association(JESA)

Next Generation Content — Reliance and Creation —

Welcoming a presenter who is a leading authority in the fields of film and music both here and abroad, latest user experience-shaped content business trends were discussed.

Special Sessions

Japanese / English simultaneous interpreting available



THE VISION OF DOUBLE NEGATIVE SINGAPORE

British VFX Studio DOUBLE NEGATIVE. The 14-year history of this company was traced, during which time they have worked on a number of major Hollywood projects including Harry Potter and Batman Begins. In 2009, they penetrated into Asia and established DOUBLE NEGATIVE SINGAPORE. The vision of this company including productions in Asia and collaboration with talents in Asia were also revealed.

Ms. Zoe Cranley CG Supervisor, DOUBLE NEGATIVE SINGAPORE

11:20 ▶12:00

The Broadcast and Media Industry Business & Technology Outlook

The IABM is an organization represented by around 300 companies in the broadcasting and media industries. The IABM understands the supply and service sector in their own way through its members. The many activities by the IABM include market research and studies, and they try to understand business, technology dynamics, and trends through these activities. During this session, data was verified from a business viewpoint in order to determine technical promotion factors that have the greatest impact. Mr. John Ive





11.14

Super Hi-Vision in London Olympic

During the London Olympics, in collaboration with the OBS (Olympic Broadcasting Services) and BBC (British Broadcasting Corporation), public viewings of sporting events in Super Hi-Vision were held in Japan, the UK, and the United States. These were held to accelerate the development of new media with large screens, high definition, and realistic sensations, for promoting diffusion and development in Japan, the United States and Europe by collaborating with overseas broadcasting organization, and for research/development and verification of transmission technologies via IP networks. Technical contents were reported. Mr. Masayuki Sugawara

Executive Research Engineer, Advanced Television Systems Research Division, NHK Science and Technology Research Laboratories

15:00 ▶16:30

Audio System Construction in Olympic

Mr. Dennis Baxter is a leader in the Olympic sports broadcasting field, which requires complicated and advanced sound production system configuration. He gave details about issues and solutions related to sound system configuration during the London Olympics, and also explained various technologies.

Mr. Dennis Baxter Sound Designer

10:30 ▶11:30

Satellite Interference!...and the Carrier ID

Satellite interference caused by unnecessary satellite uplinks from other stations occurs continuously. Carrier IDs were standardized so that by 2015, it should be possible to identify sources by adding IDs to satellite uplinks. Mr. Coleman from sIRG, which promotes Carrier IDs, introduced the history of Carrier IDs, tests conducted prior to the London Olympics, and future trends.

Mr. Martin Coleman Executive Director, sIRG







International Symposium, Visual Production (Japanese / English simultaneous interpreting available) Charge require

14:00 ▶17:00

Feel the Mysteriously Beautiful Universe! ~Evolution of Visual Technology with High Sense of Realism~

"The earth viewed from space is really beautiful." Every time we see images taken from space, we feel romanticism or a dream. We introduced the latest space image technologies such as the NASA's space imaging systems as well as the imaging technology by JPL (Jet Propulsion Laboratory) of pictures sent from the Mars explorer.One of very popular programs of NHK, "The Cosmic Shore" allowed us to experience the magnificent space high definition image technologies using ultra high sensitivity HD cameras and computer graphics (CG).Space is a complicated existence. By recreating such complexity in HD images, we can experience more realistic sensations. Collaboration between high-definition video using the latest technical developments and content production is essential for bringing footage of the universe to people that fulfills their hopes and dreams. This forum was held in hopes of becoming a bridge between future technologies and content.



Panelists



Mr. Rodney Grubbs Digital Television Program Manager, NASA



Mr. Shigeru Suzuki Member of technical staff, Instrument Software and Science Data Systems Section, Jet Propulsion Laboratory, California Institute of Technology



Mr. Hideichi Tamegaya Professor, Graduate School, Joshibi University of Art & Design



Mr. Taro Ishii Senior Program Director, Production Center 1, Science Programs Division, Program Production Department, Japan Broadcasting Corporation



Mr. Hirobumi Kurata Art Director, CG Section, Digital Media Design Services, NHK Art Inc.



Mr. Seiji Kunishige Director, A Member of Executive Board, NHK Art Inc.



MC

11.16

(Fri



International Symposium, Audio Production (Japanese / English simultaneous interpreting available) Charge require

14:00 ▶17:00

Audio Construction in Large-scale Sports Production

With the full deployment of terrestrial digital broadcasting, the style of sound creation for sports relays is also changing dramatically. Audio specialists in Japan in the field of sports relay were assembled to introduce latest information and to hold a discussion. This session could not be missed by people who are participating in or who wish to participate in sporting event broadcasting for broadcast stations, CATV, satellite sports channels, production, etc. Large-scale sports productions require audio production, various communication system configurations, return video between actual sites, and complicated system configurations for producing news sounds and IS audio for world-wide distribution in addition to the main broadcast. Issues were discussed based on actual cases.



Panelists

11.1



Mr. Shogo Takaoka Audio Production Engineering Division, NTV Technical Resources Inc.



Mr. Hirohide Takeshita Deputy Director, Production Center, Technical Department, Fuji Television Network, Inc.



Mr. Mick Sawaguchi President, Mick Sound Lab, Fellow AES/IBS



Mr. Teruaki Wasan Section Chief, Production Engineering Center, Engineering Division, Asahi Broadcasting Corporation



Mr. Shigeyuki Ikeda Broadcast Engineering Department, News Technical Center Outside Broadcast Engineering Division, Japan Broadcasting Corporation



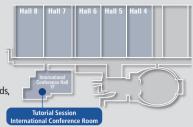
Mr. Toru Kamekawa Professor, Musical Creativity and the Environment, Tokyo University of the Arts

Inter BEE Forum Report Programs

Inter BEE Tutorial Session

Venue : Room 101, International Conference Hall, Makuhari Messe Organizer : Japan Electronics Show Association (JESA)

Lecturers and instructors who are active in the industry will provide instruction on trends in leading edge technologies, making the best use of the latest equipment and systems, as well as content production methods, to neophytes in the broadcasting, audio and video industries, as well as students who are planning to work in the industry. This will help to enhance the development of human resources in the industry.



Audio Session Basic Knowledge for audio technicians

13:00 ►14:30 Session A

Latest trend of audio production and measurements by mobile tools

With the diffusion of mobile terminals with PC functions, sound measuring and creation devices that have been large and expensive until recently have become less expensive, provide higher precision and become available on a mobile terminal. This fact was verified from viewpoints such as digital domain, analog domain, operability, portability, and applications that can be used for business were introduced. Technologies that are used and examples of applications were also explained.





Mr. Masayuki Saito Engineering Director, Synthax Japan Inc. Mr. Shokichiro Hino President, Etani Electronics Co., Ltd.

15:00 ▶ 16:30 Session B

11 1

Current Situation of File-base Audio/Visual Production

Video and audio systems are changing from conventional tape media to a production and transmission systems that utilize digital data and a PC server network. This lecture looked back the history while introducing examples of the present operation system and introduced the prospect will be shown for establishing a total file-based system in the future.



Mr. Takahiko Yamamoto President, TAC System Inc.

Visual Session Basic Knowledge for digital video creators

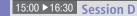
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13:00 ▶14:30 Session C

Development of New Visual Expression in Television ~ Application of the Latest Shooting Equipment ~

Shooting techniques were explained for the digital devices such as digital SLRs, high-speed cameras, underwater high-speed cameras, and high-sensitivity cameras that were used for producing the video expression program "Niyodogawa – Mysterious Blue", which is about the cleanest river in Japan based on average chemical constituents.

Mr. Daisuke Semiya Directeur of Photography, Technical Division in Kochi Bureau, Japan Broadcasting Corporation



Shooting Techniques in Human Documentaries

After the Great East Japan Earthquake, many news and information programs have been produced. A news photographer who has been reporting about disaster victims based on behind-the-news themes such as "Loss of Livelihood" and "Suffering and Sorrow", gave analysis of news reports according to psychology, shooting equipment, and shooting techniques.

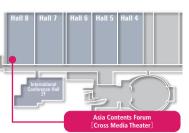


Mr. Shinji Yuki Chief Engineer, Broadcasting Engineering Department, Technical Operations and Engineering Division, Technical Operations and Engineering Center, Japan Broadcasting Corporation

Asia Contents Forum Powered by DigiCon6

Venue : Cross Media Theater, Exhibition Hall 8, Makuhari Messe Special Collaborator : TBS DigiCon6 Moderators: Mr. Takafumi Yuuki, Asia Contents Forum Director Mr. Akira Sakamoto, Asia Contents Forum Deputy Director

Collaboration between Inter BEE and "TBS DigiCon6", which is a shooting contest by TBS that began in 2000 with a goal of "Discovering and Developing Creators", and is now held in ten regions throughout Asia. Creators who are active on the front lines of new content production fields and young creators in Japan and overseas gave discourses about their pieces.





DigiCon6 Top Creator Session

The Thai movie director Adisorn Tresirikasem, who won the best director award at the Shanghai International Film Festival for the film, "My Girl", and Toshihiro Nagoshi who is the top creator in the Japanese gaming field and is responsible for the "Yakuza" series and "Monkey Ball" series gave special quest discourses where they talked about content production environments based on their experiences.

•MC: Ms. Yuumi Furuya, TBS announcer •Moderator: Mr. Yasuhiro Yamaguchi, DigiCon6 Festival Director









Introduction of excellent works at 14th TBS DigiCon6 (DigiCon6 Asian Creator's Talk)

13:30 ▶14:30 16:00 ▶16:30

Mr. Toshihiro Nagoshi Director & Chief Creative Officer (CCO)

SEGA Corporation

15:00 ▶16:00 Session 2

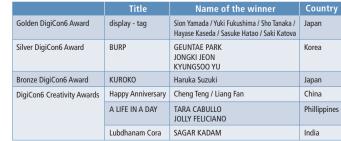
Young creators who received the highest award for their work at DigiCon6 regional awards held in different regions of Asia and related parties visited Japan and introduced their nominated pieces and talked about their content production environments.

•MC: Ms. Yuumi Furuya, TBS announcer •Moderator: Mr. Yasuhiro Yamaguchi, DigiCon6 Festival Director

Mr.Alan Chiu I Jen (Taiwan) Mr. Sagar Narendra KADAM (India)

or detailed info, http://www.digicon6.com

The 14th TBS DigiCon6 Award Winner list



Special Session 1

15:00 ▶16:30

Changing times: from viewing to experience -Projection Mapping takes you to the futuristic style of "images"

Main staff of "TOKYO STATION VISION" event held at Tokyo station Marunouchi building in the last September explained behind-the-scenes of Projection Mapping production and possibility of experience-enhanced image based on the making of that event.









Mr. Daisuke Suzawa

Producer, P.I.C.S. Co., Ltd.

Mr. Daisuke Moriuchi Business Headquarters Project Develop Department Chief Producer, NHK ENTERPRISES

Mr. Teruhisa Uchida ETC PIGI JAPON DIV. Media Entertainment, S.C. ALLIANCE Inc.

Special Session 2

15:00 ▶16:30

Example of theatrical VFX work: Making of Space Brothers VFX

Entered Omnibus Japan Inc. in 1999. As the CG director, directed VFX scenes for "Kantoku Banzai", TV-CM "NTT DoCoMo Data Communication "Tetsujin 28 (Gigantor)". "SPACE SHOWER TV "HOT Title" and "CR Space Battleship Yamato 2 (Fujishoji)" that he planned and produced were highly recognized and released in SIGGRAPH2007 and 2009 respectively. He talked about the VFX scenes whose high quality drew much attention.





Mr. Yasuo Koga CG director, Omnibus Japan Inc.



Presenter: 11.15 (Thu.) Ms. Weihua GAO (China)

11.16

(Fri

Mr. LEE Chin (Hong Kong) Mr.Geuntae PARK (Korea) Mr.Kvungsoo YU (Korea) Mr.Gabing ZENO (Malaysia)

The 14th TBS DigiCon6 Award

Ms. Juhaidah BINTI JEOMIN (Malavsia) Mr. John Alistaire Cruz FELLICIANO (Philippines) Mr. Takeyuki ONISHI (Philippines) Mr.TAN PANG REN (Singapore) Mr.Teo Say Kiam Raymond (Singapore) Mr. Pidok MOOMUENSRI (Thailand)

Cross Media Theater

Venue : Exhibition Hall 8. Makuhari Messe

In 2012, "CrossMedia Theater" was newly established as a place for cross media and digital content. Content production/management and distribution/purchasing in new industry fields has drawn attention from various guarters, and new business areas were proposed.

IPDC Forum Symposium 2012 Sponsored by : IPDC Forum

10:30 ► 12:00 Conference Venue: Room 101, International Conference Hall, Makuhari Messe

Trend of second screen and possibility of deployment of IPDC in overseas countries

In terms of second screen services that many of foreign countries are seriously considering their introduction, the session reported exhibitions in overseas countries and latest situation of consideration in Japan. Also, introduced consideration progress about possibility of application for domestic terrestrial digital broadcasting or ISDB-T in overseas countries based on the affinity between IPDC and second screens.

Part 1: A close-up of trend in overseas countries for second screen that is becoming a global trend Business Development Consultant, civolution

Mr. Yasushi Kato Mr. Yuuki Tanaka IT consultant / Researcher

Mr. Seiichi Takagi Chief senior technician, Carrier Netiwork Business Unit, NEC Corporation

Part 2: Expectation of ISDB-T-adopted countries toward IPDC

Mr. Seiichi Takagi Chief senior technician, Carrier Netiwork Business Unit, NEC Corporation Mr. Koji Suginuma Mr. Marcelo Zuffo Professor, University of Sao Paulo's Laboratory of Systems Integration

13:00 ▶ 14:30 Talk session Venue: Makuhari Messe Exhibition hall 8 "Cross Media Theater"

All about IPDC!

-Introduction of IPDC technologies: from introduction cases to solutions for operational challenges-

This session features all about IPDC which many people know it only superficially including basics such as confirmation of its advantages, summary of challenges for actual introduction to actual solutions by experts that utilize IPDC and sharing of knowhow for those who are considering introduction of IPDC to the broadcasting field.

Part 1 IPDC technologies and previous instances

Mr. Shin Hamaguchi Mr. Yuuki Sakanashi Mr. Shinichiro Tonooka Senior manager, Management Planning Department, mmbi Inc.

Director, System Management Strategy Room, Mainichi Broadcasting System, Inc. Director, Technology Promotion Department, Broadcast Promotion Bureau, Kansai Telecasting Corporation

Part 2 Future of digital broadcasting and IPDC

Mr. Hidekazu Imatani Deputy Director, MEdia Sevices/TV Division, Dentsu Inc. Kansai Mr. Tomoyuki Okamura Director, Digital Technology Promotion Section, Fuji Television Network, In-Mr. Hiroshi Saito Manager, Management Strategy Room, Mainichi Broadcasting System, Inc Mr. Masahiro Otsuka Technology strategy director, Technical Bureau, KBC Co., Ltd.



Pre Visualization (Pre-Visu) session

13:00 ▶14:00

Introduction of "Pre-Visualization" cases in Japan and Hollywood report

Introduces actual examples that utilized Pre-Visualization in film production. The topic was the real-time Pre-Visualization method that checks scenes being filmed on the real-time basis not by more popular method, simulation with CG movies. This technique is extremely effective to carry out Pre-Visualization for movies or other works that contain a number of scenes. We strongly encourage visitors to view and take advantage of this opportunity to inspire your film production Also, latest information was reported for Hollywood, the U.S., one of leading Pre-Visualization countries. It's a can't-miss event.

Mr. Satoshi Yamaguchi ACW DEEP President/ Pre-Visu supervisor





V-Low Session

10:30 ► 12:00 Session 1

Next-generation radio as "an emergency radio in every home"

Based on lessons from the Great East Japan Earthquake, the role of local radio was considered for the Tonankai Earthquake, which is assumed to occur in the future along the Nankai Trough. The areas where the speakers are from are expected to have major damage from this Tonankai Earthquake. Next generation radio using V-Low frequency was discussed based on how it is viewed in each area and consideration of issues so that is can be "Strong for Disasters".

.14	Mr. Taro Kimura	President, CSRA & V-Low Emergency Digital Community Radio Investigative Committee, Representative president, Zushi Hayama Community Broadcasting Company	
≥d.)	Mr. Kiyoshi Izumi	Representative president, FM TANABE Community FM Station in Tanabe city, Wakayama prefecture	to
	Mr. Kenichiro Kawabata	BANBAN Networks Co., Ltd., Kinki V-Low experiment head office	1
	Mr. Kazunori Shibata	FM Toyohashi Co., Ltd. Toyohashi Cable Network inc.	



10:30 ▶ 12:00 Session 2

New radio culture cultivated by new generation radios

It is believed that the potential for digital radio should be discussed more as a next generation radio that is "Strong for Disasters". Ouestions about digital radio such as 'What is the potential of digital radio using V-Low frequency based on the viewpoint of community broadcast stations that are proven local media?', 'Will it be successful as a business?', 'How is content made?', and 'What is the relationship with the Internet?' were considered from different viewpoints by two experts.

- Mr. Taro Kimura 11.16
 - President, The Community Simul Radio Alliance (CSRA) Representative president, Zushi Hayama Community Broadcasting Company
 - Mr. Hiroyoshi Sunakawa Associate professor, College of Sociology Communication and Media Studies, Rikkvo University
 - Mr. Tomoyuki Kadotani Executive Officer, Director of Streaming Business in Main music.jp Business Unit Director of Net Radio MTLLtd



Production Promote Booth

ouring Inter BEE, a CG and VFX production booth that is representative of /FX creators so that content creators will visit the site. During the

h, where there was lively ange, and new possil content production by ooration among ologies from software ar ardware manufacturers along with the creativity of conter reators were pointed out.

Production & Creator's Night

The "Production & Creator's Night" exchange party with digital CG and VFX creators from Japan and overseas was held with CG and VFX productions representing Japan to make them more familiar with the latest video works

in addition to the video equipment. A total of 153 people attended.

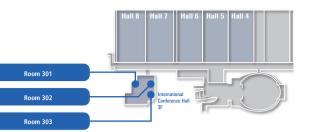


Inter BEE Forum Report

The 49th Symposium of Broadcast Technology

November 14 (Wed.) to 16 (Fri.)

Venue: 3rd Floor, International Conference Hall, Makuhari Messe The Japan Commercial Broadcasters Association (JBA)



Special Program

11.15 (Thu.

10:30 ►12:00 Room 301, International Conference Hall

Will broadcasting and communications collaborations give rise to new ideas?

~ What comes next after digital? ~



Symposium of Broadcast Technology

	Venue	11/14 (Wed.)	11/15 (Thu.)	11/16 (Fri.)	
	Da	10:30 ▶ 15:30 Network Linkage / Communication	13:30 ▶ 16:00	10:30 ▶ 15:55	
11.14 (Wed.) 	Room 301	1 10:30 ▶ 12:10 Information Technology / Network	Special Program	Broadcast Operation	
11.16 (Fri.)	Room 302	13:00 ▶ 15:55 Transmission	10:30 ▶12:10 Pictorial Image Technology	10:30 ▶ 15:05 Datacasting / Digital Services	
	Room 303	10:30 ▶ 16:20 Production Engineering	10:30 ▶12:10 Production Engineering	10:30 ▶ 15:05 Sound Broadcasting / Audio	







Breakdown of registered visitor number

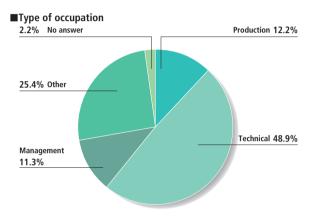
	-			
	11.14 (Wed.)	11.15 (Thu.)	11.16 (Fri.)	TOTAL
Domestic	10,223	10,259	10,625	31,107
Overseas	457	208	85	750
TOTAL	10,680	10,467	10,710	31,857

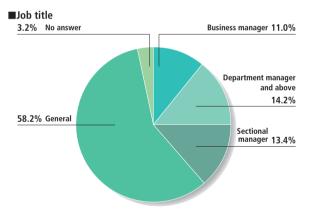
Breakdown of registered visitors

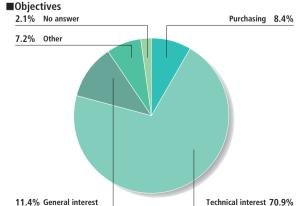
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Area	Number of countries & region / Number of visitors	Breakdown of visitors by country & region
Domestic	1 country / 31,107	Japan 31,107
Asia	11 countries & region / 618	Korea 389 / China 70 / Taiwan 41 / Thailand 23 / Hong Kong 21 / Singapore 21 / Indonesia 19 / Malaysia14 / Philippines 11 / Sri Lanka 5 / India 4
North, Central and South America	7 countries / 64	U.S.A 48 / Brazil 8 / Peru 3 / Chile 2 / Uruguay 1 / Costa Rica 1 / Paraguay 1
Oceania	2 countries / 2	Australia 1 / New Zealand 1
Middle East / Africa	7 countries / 13	Zimbabwe 3 / Mozambique 3 / Angola 2 / Israel 2 / Congo 1 / Turkey 1 / Botswana1
Europe	8 countries / 42	United Kingdom 17 / Germany 12 / France 4 / Sweden 3 / Finland 3 / The Netherlands 1 / Denmark 1 / Poland 1
Unknown		11
TOTAL	36 countries & region	31,857

♦Visitor demography

■Age Group 2.0% No answer Teens 3.5% 24.2% 50's or over 20's 16.7% 28.6% 40's 30's 25.0%









Type of Business

State-run Broadcasting Station	3.0%	Related Internet Business	2.3%
Commercial TV Broadcaster	8.8%	Telecommunications Carrier	3.0%
Radio Station	0.8%	Content Delivery Network	0.9%
Post production	7.5%	Facilities and Stores	1.5%
Production House	4.7%	Government office, Organization	1.7%
Film and Video Production Company	5.5%	Trading Company	5.8%
Video Software Production Company	1.5%	Other User	8.9%
Recording Company	0.7%	Equipment Manufacture	13.0%
Related PA Equipment	4.1%	Ad Agency	1.3%
Related CATV	2.8%	Student	7.0%
Related Staging, Art and Lighting	3.0%	Other	7.7%
Related Contents Publishers	2.6%	No Answer	1.9%

■Interest (Multiple answers accepted)

	• •		
Audio Equipment	32.9%	Transmission Systems	8.1%
Video Equipment	53.4%	Electronic Power Unit	4.1%
Microphone	9.9%	Measuring Equipment	6.2%
Mixer	11.5%	Stand-by and Peripheral Products	8.0%
Speaker	10.8%	Software	11.2%
Camera	26.5%	Art and staging	3.8%
VTRs, Memory Cards, Optical Disks	11.6%	IPTV	7.4%
Servers, Storage	10.6%	Mobile TV	6.6%
Lighting Equipment	9.3%	Digital Signage	9.5%
Electronic Display	14.0%	Digital Cinema	7.7%
Editing and Production Equipment	20.5%	3D	8.7%
Multimedia System	8.6%	Digital Contents	8.3%
Production Management Systems	3.9%	Other	2.6%
Output System	8.2%	No Answer	2.3%
Relay System	9.7%		

Visitor Questionnaire result

•What was your goal in coming to "Inter BEE 2012"?

64.0% To obtain the latest information on products and technologies

- **19.4%** To get a handle on industry trends
- **6.1%** To make a preliminary examination concerning introduction of devices and technologies.
- 4.4% General interest
- **2.9%** To interact with and improve friendly relations with business partners
- **1.3%** To obtain rival company information
- 0.8% To develop a new business route

20

0.7% Business Meeting0.4% Other

10

% Other

◆How satisfied to accomplish your goal?

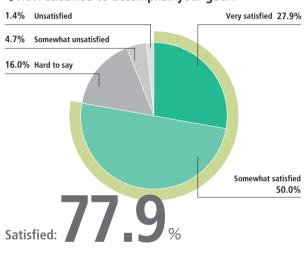
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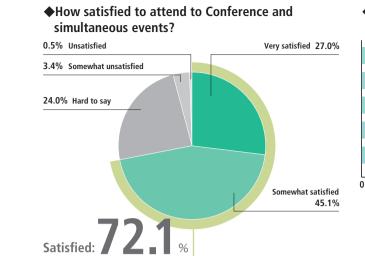
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60

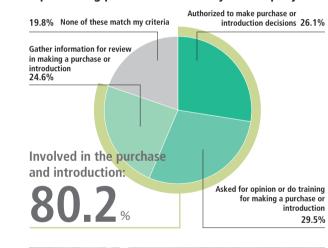
70







To what degree are you involved in the process of purchasing products/services in your company?

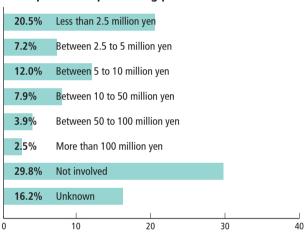




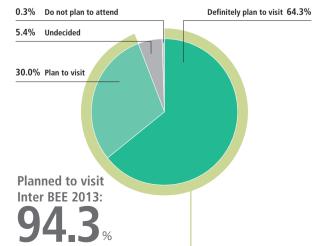




How much is annual budget you are involved in the process of purchasing products/services?



◆Do you plan to visit Inter BEE 2013?



Visitor Questionnaire result



Number of exhibitors

Exhibition category	No. of exhibitors	No. of booth
Professional Audio Equipment	289	284
Professional Lighting Equipment	22	25
Video and Broadcast Equipment	533	1,048
Cross Media	27	66
Total	871	1,423

Exhibitors:

871 companies (Record-high)

Breakdown of exhibitors

Area	Number of countries / region Number of exhibitors	Breakdown of exhibitors by country & region
Domestic	1 country / 380 companies	Japan 380
Asia	6 countries & region / 53 companies	Taiwan 19 / China19 / Korea 11 / Singapore 2 / Hong Kong 1 / India 1
North, South and Central America	4 countries / 193 companies	USA 173 / Canada 18 / Brazil 1 / Mexico 1
Oceania	2 countries / 14 companies	Australia 13 / New Zealand 1
Middle East	2 countries / 5 companies	Israel 4 / Turkey 1
Africa	1 country / 1 companies	South Africa 1
Europe	20 countries / 225 companies	Germany 82 / United Kingdom 60 / Italy 13 / Ukraine 1 / Austria 3 / The Netherlands 8 / Croatia 1 / Switzerland 8 / Sweden 9 / Spain 4 / Slovakia 1 / Denmark 5 / Norway 4 / Hungary 4 / Finland 1 / France 13 / Bulgaria 1 / Belgium 5 / Portugal 1 / Liechtenstein 1
TOTAL	36 countries & region	871 companies

No. of overseas exhibitors:

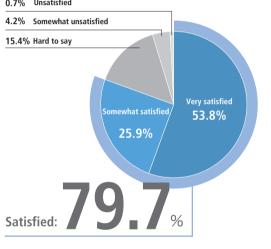


Exhibitor Questionnaire result

What were your main objectives for exhibiting at Inter BEE 2012? (Multiple answers accepted)

80.4%	Marketing new products and technologies
79.7%	Sales promotion of products and/or technologies
68.5%	Seeking new clients in Japan
62.9%	Collecting information from visitors
44.8%	Strengthening relations with business clients
23.1%	Achieving business agreements
10.5%	Creating new overseas clients
) 10	20 30 40 50 60 70 80 90

How satisfied to accomplish your goal? 0.7% Unsatisfied



Targeted type of business (Multiple answers accepted)

• rangetea type of basiness (maniple answers acceptea)				
Commercial TV Broadcaster	85.3%	Trading Company	25.2%	
State-run Broadcasting Station 78.		Content Delivery Network	24.5%	
Related CATV	59.4%	Other User	23.1%	
Film and Video Production Company	51.0%	Facilities and Stores	22.4%	
Postproduction	46.9% Related Staging, Art and L		18.9%	
Production House	43.4%	3.4% Related PA Equipment		
Government office, Organization	37.8%	Related Internet Business	16.8%	
Radio Station	36.4%	Recording Company	11.9%	
Video Software Production Company	32.2%	Student	8.4%	
Equipment Manufacture	30.1%	Ad Agency	5.6%	
Telecommunications Carrier	27.3%	Other	4.2%	
Related Contents Publishers	26.6%			

Targeted Occupation (Multiple answers accepted)

Engineering	84.6%
Production	60.8%
Management	25.9%
Other	4.9%



1. Distribution of press releases

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メディアのデジタルイノベーション

Notification of start of exhibitor recruiting	2/29
Notification of start of pre-admission registration	9/10
Attracting interviewers	11/8
Information announcing the event	11/13
Set up press room	11/14-11/16
Reported completion	11/16

2. News Media Representatives



3. Number of articles in the printed media

Before the show	80
During the show	27
After the show	68
Total	175

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4. Newspapers and Magazines Articles in Japan

Automation Review
B-maga
Broadcast Engineering
Dempa Shimbun
Dempa Times
Eizo Shimbun
FujiSankei Business i. (Osaka)
FujiSankei Business i. (Tokyo)
Full Digital Innovation (FDI)
NEW MEDIA
Nikkan Kogyo Shimbun (Osaka)
Nikkan Kogyo Shimbun (Tokyo)
Nikkei Sangyo Shimbun (Osaka)
Nikkei Sangyo Shimbun (Tokyo)
NIPPON CAMERA
ОРТСОМ
PRONEWS
Sound & Recording Magazine
Tele-Cable Newspaper
VIDEO JOURNAL

5. On-air media

Japan	TBS Television (CS)	News Bard 1600	
	Fuji Television Network	New Weekly Fuji Remarks	
Europe	NTN 24	Informativo NTN	
		CTS Salud Ciencia et Technologia	
U.S.A	NBC Sports Network	"Hard Drive"	
	MAV TV	"Hard Drive"	
	TUFF TV	"Hard Drive"	
	Wealth TV	Wealth International News	
	MundoFox	"Noticias" (daily newscast)	
Canada	CAVE TV	"Hard Drive"	
Central & NTN24		Informativo NTN (repeat)	
South America		CTS Salud Ciencia et Technologia	

6. List of publication (Domestic)

Broadcast Engineering
CG World & Digital Video
Dempa Shimbun
Dempa Times
Eizo Shimbun
Full Digital Innovation (FDI)
Hoso Journal
Journal of Professional Lighting (JPL)
MJ
Motion Picture and Television Engineering
NEW MEDIA
Nikkei Sangyo Shimbun
PRO SOUND
Sound and Recording Magazine
Stage Sound Journal
Telecommunication
Telecommunication Video Journal

7. List of publication (overseas)

ABU Technical Review
Asia Pacific Broadcasting
Broadcast Engineering
Broadcast India
Broadcast & Production
IBC Daily
IBI(International Broadcast Information)
JEI
Korea electronic newspaper
PA (Pro Audio)
Panorama Audiovisual Brazil
Panorama Audiovisual Latin America
Tele-Satellite Cable
TV Technology
Video Plus

8. Inter BEE Official Mail Magazine

Inter BEE sends News Center information, such as Inter BEE highlights and articles posted on Inter BEE Online, in e-mail magazine form to target visitors from the Inter BEE Visitor Database.



9. Inter BEE Online Magazine

Inter BEE has provided year-round newsy information related to Inter BEE exhibitors, domestic and international exhibitions and the latest industry news in the form of the Online magazine(written) and Inter BEE TV (movie).

♦Inter BEE 2012 exhibitors articles

Inter BEE TV: 160 Online Magazine: 51 Total: 211	
◆Related exhibitions articles: 40	
◆Latest industry news: 133	

10. Creation of Printed PR Tool

 Poster: Distributed to exhibitors and concerned parties Invitation ticket, Leaflet and envelop(J, E): Distributed to exhibitors, concerned parties and the media • Exhibition Information: Distributed to all attendees during the show



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11. Media Partners

Relevant industry magazines/papers support Inter BEE as media partners

株式会社《一工业工艺/ENSinc	ExpoTODAY	映像新聞	オートナルビュー
兼六館出版	の工業運信	<u>979/181</u>	PRONEWS"
S VJ	世界广播电视画	通信興業新聞社	テレケーブル
extel 電波タイムス社	NEWMEDIA		く部門
放送ジャーナル	Yukan Media, inc.		æв

12. Inter BEE Official Website **Official Website Page Views:**

5,431,980

Social Networking

We created a Inter BEE Facebook page from which we distributed exhibitor's information and articles on official website. We also posted

photos of events to tell the 2012 exhibition in real time.

Facebook (Japanese / English)

[Activities]

- Distributed exhibition information consisting mainly of latest **Online Magazines**
- · Uploaded photos from the exhibition venue
- Allowed official Twitter account tweets to be viewed

Inter BEE 2013 International Broadcast Equipment Exhibition 11.13 Wed. >>> 15 Fri. at Makuhari Messe, TOKYO

Professional Show for Audio,

Organizer: JEITA Japan Electronics and Information Technology Industries Association

Snow 101 Auro, Video and Communications

Management/Contact Japan Electronics Show Association Ote Center Bldg., 1-1-3 Otemachi, Chiyoda-ku, Tokyo 100-0004 Tel: +81-3-6212-5231 FAX: +81-3-6212-5225 E-mail: contact2013@inter-bee.com