Inter BEE

International Broadcast Equipment Exhibition

■Organizer

JEITA Japan Electronics and Information Technology Industries Association

■Management/Contact

Japan Electronics Show Association
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International Broadcast Equipment Exhibition Inter BEE

REVIEW 2013

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International Broadcast Equipment Exhibition

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Inter BEE 2013

International Broadcast Equipment Exhibition

Inter BEE 2013 (the 49th International Broadcast Equipment Exhibition) was held over a period of 3 days from November 13 (Wed) to November 15 (Fri) at Makuhari Messe in Chiba city with the support of 5 ministerial organizations and the co-operation of 31 other industry associations.

■The Leading Domestic Professional Media Exhibition

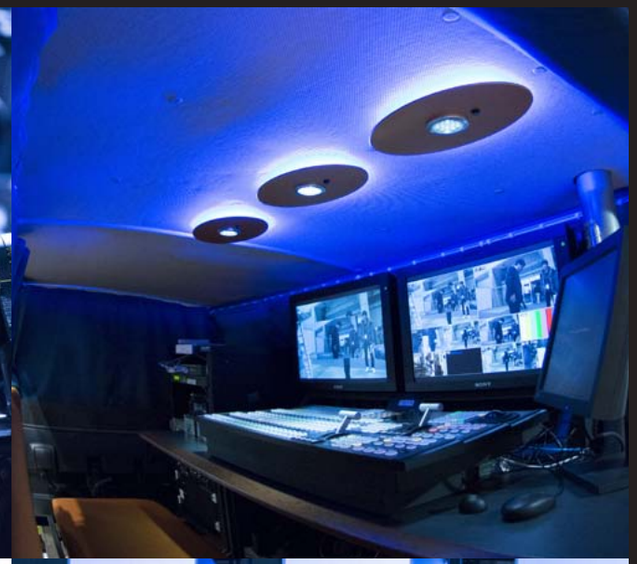
In this year, which marked the 60th anniversary of the commencement of television broadcasting in Japan, many exhibitors from the four categories of Video and Broadcasting Equipment, Professional Lighting, Professional Audio and Cross Media gathered at Inter BEE, currently in its 49th year. The exhibition provides an information exchange and transmission hub for those in the broadcasting industry, related electronic equipment makers, associated service industries and content business, as well as creators and designers, to meet in the same space once a year to pick up on the latest trends in broadcasting and related technologies.

With the decision to host the 2020 Olympic and Paralympic Games in Tokyo, in response to the great expectations for advancements in broadcasting services, various companies and organizations from the media industry came forth to present exciting solutions and ideas for 4K/8K High Definition video technology, second screen and smart TV, video streaming and much more for both now and into the near future.

■A diverse range of conferences and open seminars held simultaneously

In addition to the "Inter BEE Content Forum", "Tutorial Session" and "Cross Media Theater" organized and run by Inter BEE at the exhibition and message exchanging conference, this time the 50th "JBA Symposium of Broadcast Technology" sponsored by The Japan Commercial Broadcasters Association, as well as the "Loudness Workshop" primarily organized by the Japan Post Production Association, were simultaneously held in the same space.

And, for the first time ever, the "Japan Post Production Conference", which is a Japanese version of the paid admission conference held at the NAB Show in the U.S, was also held at Inter BEE, where top domestic and international creators and industry-leading professionals showed off their diversity and potential in the realm of media and content.



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: **918** (record-high) companies

Number of overseas exhibitors: **536** (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: **31,979**

Number of news media representatives: **324**

International

Leading-edge technology under the global spotlight

The world's attention is currently focused on the latest advancements in broadcast services, such as 4K/8K, being promoted by the all-Japanese technology that will be used for the Tokyo Olympic and Paralympic Games.

Overseas exhibitors: **30** countries/regions

Overseas visitors: **34** countries/regions

Professional Audio

Sound that resonates in the heart is reproduced with technology

PA and live stage equipment which continues to innovate for more powerful and high-quality sound, MA-related equipment such as DAW, etc., which is becoming more efficient and multi-functional, plus bringing together the latest topical equipment and technologies with additional functions, such as digital microphones, loudness, etc. from manufacturers across the world.

■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 Cabinets, Racks, Pedestals, Camera Tripods, Camera Platforms, Cranes, Steadycams, Furniture, Camera Carrying Cases, Other Related

■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 using the latest coding technology.
Other proposals which would spawn subsequent businesses, such as various data transmission services and application examples, etc. were also made.

■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.), H.264 Encoder/Decoder, HEVC Encoder/Decoder, Transcoder, 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, 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, Cloud Service, 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, Audio Archive, Rental Image, 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

50th Symposium of Broadcast Technology

Outline

■Name

International Broadcast Equipment Exhibition 2013
(a.k.a. Inter BEE 2013)

■Period

Wednesday, November 13th – Friday, November 15th (3 days)

■Exhibition hours

November 13th and 14th 10:00 a.m. to 5:30 p.m.
November 15th 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) *Listed by date established.
Japan Broadcasting Corporation (NHK)
The Japan Commercial Broadcasters Association (JBA)
The Association of Radio Industries and Businesses (ARIB) *No particular order

■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 Satellite Broadcasting Association
Japan Stage Sound Business Cooperative
Japanese Society of Cinematographers
Japanese Society of Lighting Directors
Motion Picture and Television Engineering 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
Visual Industry Promotion Organization

■Global Partners

■Managed by

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How to create television programs to reach viewers
A secret key to the smash-hit success

Ms. Marini Ramlan
HEAD, CONTENT INNOVATION PRIMEWORKS STUDIOS

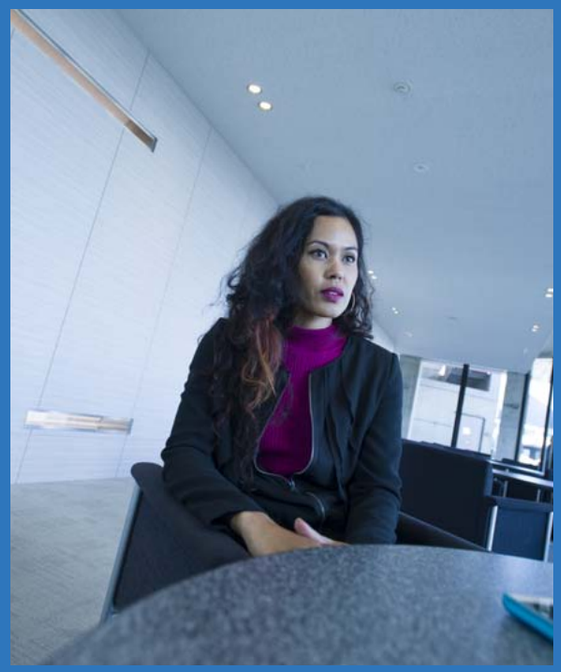
Malaysia's unique media industry dominated by one company owning all commercial channels

Malaysia is one of the most economically advanced countries in Southeast Asia. The country is developing its network infrastructure through national policy, planning to start terrestrial digital broadcasting in 2015.

Meanwhile, its media industry has developed in a little peculiar way. In addition to two state-run television stations, TV1 and TV2, there are four private stations, TV3, ntv7, 8TV, and TV9, all of which are owned by a company named Media Prima. This is an enormous, far-reaching company that holds not only television stations but also print media publishers, radio stations, and digital content production companies.

Primeworks Studios, one of its subsidiaries, produces content for the affiliated broadcasters as well as distributes Asian television programs, movies, and so on. The company creates big-hit content one after another in collaboration with social media.

This time we interviewed Ms. Marini Ramlan, who is responsible for these new media in Primeworks Studios, about Malaysia's content industry.



■Malaysia's television broadcasting market and viewer demands

In Malaysia, nationwide broadcasting services are offered by TV3, TV9, TV2, TV1, and cable television stations.

Among them, TV3 and TV9, the broadcasters owned by Media Prima, have extremely high viewing shares, with 33 percent and 10.5 percent respectively. Their sister channels covering urban areas, 8TV and ntv7, also have overwhelming viewing shares.

This is mainly because they support videos, IPTV (internet streaming service), print media, and social media. Naturally, as the content producer of the group's television stations, Primeworks Studios needs to support these various platforms. Among them, interactive content is the most demanded now.

In this context, Primeworks Studios launched a Website "tonton" in 2010 as complementary to television broadcasting. The Website not only streams television shows of the group's broadcasters but also offers original video content, and the number of registered users has increased to 3.3 million.

It is Ms. Marini Ramlan who takes charge of these new media. She undertakes a wide range of work including developing the content copyrighted by her company and looking for good animation content to distribute.

■Smash-hit content originated from the Website

Though it started as complementary to television, tonton has made difference in the media industry through its original, captivating content.

A leading example is Autumn Di Hatiku (or Autumn in My Heart in Malay). This is an original video only available on tonton. The plot is a romantic comedy where a student from Korea falls in love with a Malaysian girl. According to Marini, one of keys to this success is collaboration with social media.

"Recent viewers cannot be satisfied with simply watching television, so we thought we would need to offer a multi-platform service such as one including communication. That is why we created content for each media platform including Facebook and Twitter. We distributed information about shooting locations, as well as produced applications. One of our interactive content programs even earned 75,000 page views at the time of the video's transmission. I think this interactive communication with viewers made the program very popular."

Autumn Di Hatiku enjoyed a burst of popularity. Its leading actor Kim Jin Sun also became a public favorite, keeping a high profile on radio as well.

"Everyone falls in love with this Korean actor. He really made a great sensation," said Marini.

The program was so popular that eventually it was aired on television. This web-originated series of five-minute stories (28 stories in total) developed into a great work attracting many

viewers, thanks to creative content and effective promotion.

"We are now planning for the second season. We are very proud of this reverse phenomenon."

■Current market trends and future opportunities

Now in Malaysia, dramas are the most popular form of content, holding all the top 20 slots on the tonton charts. Especially, family dramas and romantic comedies are in the public favor.

"Most of them were made in Malaysia, but Korean and Filipino dramas are also very popular. Though Japanese programs used to be widely watched, Korean dramas have grown in popularity since Winter Sonata. They are affordable to buy and air. It seems that they have penetrated into Malaysia's market while widely broadcasted."

Korean pop music is also widely favored, maybe driven by the popularity of Korean dramas. They are so popular that Malay girls wearing Islamic headscarves can speak Korean very well.

On the other hand, a new category of content is emerging that introduces a variety of Asian lifestyles. One of the examples is travel documentaries.

Hip-Hoppin' Asia is a high-rated show aired on 8TV where Joe Flizzow, a Malaysian hip hop star, communicates music information while traveling to various cities in Asia. A key to this success seems to be high awareness created by social media.

"We produced two episodes about Japan. Much to my delight, they were accessed from Japan, too," said Marini.

A program where an actor travels to eight countries tackling a variety of challenges also earns high ratings.

These trends have been supported by diversification in the Malaysian digital market. With the spread of Youtube and mobile viewing, a habit to watch what you want when you want is being established.

Besides traditional television viewing, other media viewing is spreading, and their synergetic effects generate a new type of content.

Marini is seeking how to create world-leading content beyond this.

■Creating global content inspired by Asian lifestyles

Primeworks Studios have provided content mainly to the sister companies for the domestic media market. Marini wants to create new content for foreign markets going forward.

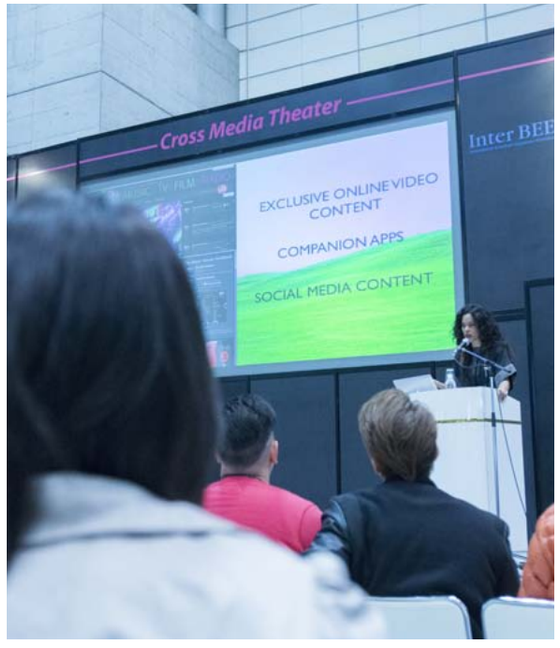
"First, we are planning to produce content for Arab countries, which share the common culture of Islam with us. The region also has great potential for market growth. Moreover, we expect that programs broadcasted there may spread into European countries."

The topic of the content is Asian lifestyles. Of course there are reasons for this; travel documentaries are growing in popularity, and Marini also takes into account the trend that recent Western programs often include Asian motifs. She believes that global interest in Asian culture is rising.

Cultures, myths, legends, and cityscapes they are all ordinary topics, but there is a type of content that only locally-based company can create.

Marini indicates that collaboration is important to that end.

"Though Western firms are producing programs to introduce Asia, I think it is difficult for them to create ones with deep insight into the region. We can compete against Western production companies by creating such programs. To this end, we need to reach international standards. We might not be able to do it by ourselves, but I believe we can do it by collaborating with other companies."



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

Inter BEE 2013 Keynote Speech

Current and future of 4K and 8K
“A call for collective efforts to accelerate the progress of high definition technology”

Inter BEE 2013, held at Makuhari Messe, Chiba, Japan, from 13 to 15 November, drastically increased the number of 4K-related products on display and revealed high expectations for new broadcasting services. To realize 4K/8K broadcasts, the Japanese Ministry of Internal Affairs and Communications (MIC) formulated a roadmap with a clear timeframe. Meanwhile, the Next Generation Television & Broadcasting Promotion Forum (NexTV-F) kicked off with its first general assembly on May 2, 2013. This incorporated organization for nationwide cooperation to promote 4K/8K broadcasts was organized by NHK, Sony, NTT, and Sky Perfect JSAT, with participation of 21 companies including five Tokyo-based key stations, WOWOW, KDDI, NEC, Panasonic, and Toshiba. The organization adopts a flat structure where each company has a seat on the board of directors and actively engages in promotion, development, research and survey activities for 4K/8K broadcasts.

In his keynote speech entitled “Strategy for Advancement of Broadcasting Services,” Mr. Toshiyuki Minami, Deputy Director-General of the MIC Information and Communications Bureau, discussed the current situation and future potential of advanced broadcasting services, centered on 4K/8K. The following is the main points of his speech.

■ Increasingly diversified needs of viewers Content production support for 4K/8K broadcasts

The needs of television viewers will be more diversified, such as desires for the beauty of ultra-high-resolution images, smart televisions, and online video distribution. I believe that compared with 2K digital television, in the age of 4K/8K, the receiver market will become more attractive with a wide range of services to meet viewers’ needs and a combination of various functions.

In Japan, the NexTV-F was launched to set a path leading to the realization of 4K/8K broadcasting services. With the participation of a variety of players such as broadcasters, communication common carriers, receiver manufacturers, advertising agencies, and trading companies, the forum has just started its activities.

4K/8K content production might be a common problem among the related companies. The MIC will establish a test-bed environment to help them solve this problem. “Chicken Race,” a 4K drama aired by WOWOW, demonstrated quality differences between old and new technologies even when viewed in 2K.

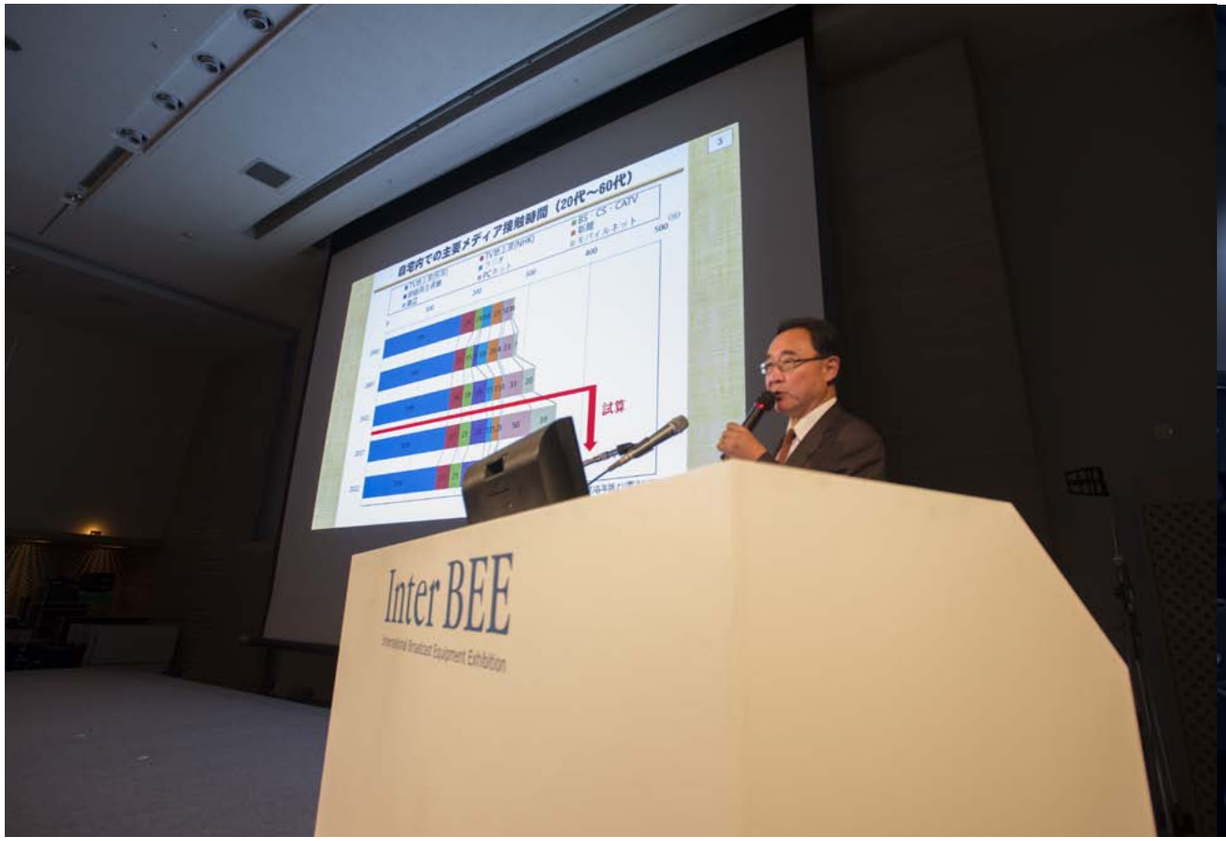
This indicates that 4K content production has a large advantage, even for 2K viewing. I believe video techniques will be dramatically advanced by 4K/8K. 4K/8K content should be created as much as possible in advance, not immediately before the service starts.

■ Information sharing by the NexTV-F and expectations for the participation of local stations

Trial production so far revealed differences in usability between new 4K and conventional 2K broadcasting cameras, such as how to bring an object into focus. The NexTV-F members are exchanging information to improve the usability of 4K production devices including cameras and make them easier for professionals to use.

Though the NexTV-F now consists mainly of key commercial stations, the participation of local broadcasters is crucial for its future. The other day, at the annual conference of the Japan Commercial Broadcasters Association, I had an opportunity to discuss with presidents of local stations. With the progress of BS, CS, and 4K viewing environment, more and more executive officers of local broadcasters seem to have a sense of crisis that they might lag behind.

Prior production of 4K content will bring us great advantages. Local broadcasters also might as well start learning how to shoot 4K/8K video and other related technology as soon as possible. To that end, the NexTV-F is designed to encourage broad participation.



■ Expanded collaboration between 4K/8K and the next-generation high-function television or B2B

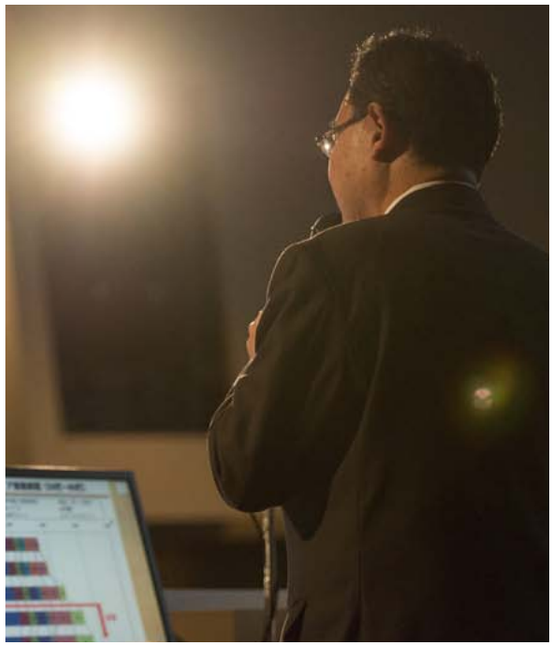
It is not enough for 4K/8K technology to pursue the beauty of images and super high definition quality. Its development needs to be promoted along with the next-generation smart television development. The NexTV-F established a committee to ensure the collaboration between the 4K/8K and next-generation smart television advancement.

Moreover, 4K/8K technology needs to be applied to the B2B sector, such as medical devices, design, museums, and surveillance cameras. To this end, a committee on utilization of the technology was also set up. Trials and errors for 4K/8K already started in various fields.

■ Financial support to accelerate the realization of 4K/8K broadcasts

The MIC provides financial supports for the 4K/8K development, though the ministry offered no financial support even at the start of television and color television broadcasts. The reason why this time we assist the promotion of 4K/8K with a supplementary budget of 3.1 billion yen for test-bed environment setup and the like is because we are requesting the industry to move up the start of the new broadcasts ahead of other countries. Recognizing that the development schedule is really tight, we are willing to back up the industry.

In 2012, we made a sudden decision to ask for a supplementary budget, managing to obtain the minimum necessary amount. Meanwhile, we have received requests for more support. Of course we will carry on with our assistance. Next year, the MIC is planning to request budget for this field to continue our support. In addition, a new budget will be allocated as economic stimulus. We are discussing with the fiscal authority if we can use part of the budget for the 4K/8K development.



■ Aiming at starting 4K test broadcasts with using a HEVC chip devices for the Brazil World Cup

At this Inter BEE 2013, NEC exhibits a HEVC real-time hardware encoder at its booth. The system of the product is not on chip, and we hope that the relevant manufacturers cooperate to pack the functionality into a single chip as soon as possible.

We would like manufacturers to make their best efforts to commercialize single chip HEVC real-time encoders and decoders by the time of the start of 4K test broadcasting at the Brazil World Cup in 2014.

Broadcasters' efforts to produce 4K/8K content are also expanding step by step. The other day, I had a chance to watch "the Chorus," an 8K program produced by NHK. This was pictured in a long shot throughout the whole story, which made me feel as if I watched something like a Noh or play. It was so fantastic that I had high expectations for the birth of brand new, innovative video expressions.

■ Formulation of technical standards aiming at international standardization

Meanwhile, the MIC started establishing technical standards required for 4K/8K broadcasting. It will begin with satellite broadcasting and then will be extended to CATVs. Currently, we are discussing technical conditions to realize 4K/8K satellite broadcasts, including encoding and multiplexing methods.

To prevent the Japanese technology from falling into a "Galapagosization" syndrome, we pay close attention to the movements of the International Telecommunication Union and other global organizations for international standardization. Our discussions about technical conditions include the standardization of specific video formats such as the number of pixels, frame frequency, and color gamut. We are planning to determine the technical standards for 4K/8K satellite broadcasting by March 2014, and then carry on with discussion about necessary regulations.

■ Use of 4K content in the local government and education sectors and use of 8K cameras in the health care sector

4K/8K technology can be used for various B2B markets, including not only the television transmission business but also signage, digital cinema, education, design, health care, and surveillance cameras. Health care workers hope to take advantage of 8K cameras for medical purposes, while local governments want to use 4K content. Moreover, those involved in education consider using 4K/8K technology for e-whiteboards.

Another crucial factor for practical use of 4K/8K technology is collaboration with the next generation smart television technology, which connects broadcasting programs with smart phones and tablets using control signals from the channel on the HTML5 television.

The participation of third parties such as application companies will broaden the range of content. The more content resources broadcasters open to public, the wider the range of content third parties can provide.

Leading VFX production supervisors discuss the present and future of the VFX industry

Last year saw a massive shakeup in the American VFX industry. Rhythm & Hues, a studio that worked on the VFX for many Hollywood movies such as “The Chronicles of Narnia” and “Life of Pi”, went bankrupt.

Given an abundance of funding, and having worked on many movies that made heavy use of VFX, it was quite shocking for a studio that seemed perfectly normal to go bankrupt. And, ILM, who could be considered as the grandfather of VFX from their work on the Star Wars series, was acquired by Disney, which is another example of the various shockwaves occurring in the VFX industry.

We asked for the thoughts of two major Hollywood VFX supervisors on the present and future of the industry.

Transitioning from Hollywood dependent VFX production to becoming global production organizations

Mr. Jason Schugardt
VFX Supervisor
Method Studios

Mr. Stuart Farley
Head of 3D
Double Negative Visual Effects Singapore

Double Negative is a production studio headquartered in England that works on major films such as "Thor: The Dark World" and "Hunger Games: Catching Fire", and while liaising with directors, is widely involved in film production.

They are also now involved with small scale independent art-house films as well. Currently they operate a branch in Singapore, and though they currently operate on a scale of 1,000 and 250 employees respectively, 16 years ago at the time of its establishment there were only about 20 people.

The current head of the 3D division in Singapore, Stuart Farley, has a unique background as a microelectronics engineer. At university, he studied science, and after graduation, he joined an electronics company that worked on the development of radars and other technology for the British Minister of Defense. After four years working there, he then made his foray into the VFX industry.

“I really wanted to do something creative, so I studied CG on the side by myself. I approached various companies with some demo reels I made, and got into Pinewood Films. I was working on the CG for a Gerry Anderson TV series, but I was also involved with Double Negative through the R&D for it, and with that connection I eventually changed jobs.”

Initially employed as a junior staff member, he gained experience in various roles, and also in management. Twelve years since starting work at Double Negative, in September 2013 he was transferred to Singapore and is currently the head of 3D there.

On the other hand, the studio that Jason Schugardt works at, Method Studios, is headquartered in Los Angeles. It also has offices in New York, Chicago, Detroit, Atlanta, as well as Canada, England and Australia. It's been about 16 years since the studio was established.

The studio originally worked on commercials but added in feature film work four years ago. Some examples of their work include "Cloud Atlas" and "Iron Man 3".

Jason received a BFA in Electronic Media at Virginia Commonwealth University knowing he wanted to work in the VFX industry. He moved to California in 1996 and got his start as an intern and tape operator for Boss Film Studios.

After that, he worked at several small scale studios that allowed him to wear many hats, from data I.O., I.T., and CG generalist, to CG supervisor and on-set VFX supervisor. With a broad knowledge VFX production he honed his craft in lighting and compositing at the larger studios. He traveled around the world working at Sony Pictures Imageworks, Weta, Animal Logic and MPC London, before coming back to Asylum Visual Effects in Los Angeles. He moved to Method Studios in 2010 and is currently a VFX supervisor there.

■The current state of VFX and the future market

Q: What do you think about the collapse of Rhythm & Hues?

Stuart: I think that the entire industry being in a complex situation as well as the international economic conditions had a significant influence on that. Working in London, what is becoming important on a daily basis is how to produce the next film more efficiently, more quickly, and also according to budget. It feels like keeping everything within budget has become even stricter than ever.

Jason: The irony of a company winning the Visual Effects Oscar while simultaneously going out of business speaks to how tough VFX industry is. The industry is always changing and companies have to remain agile to evolve with it. Only 10 years ago, VFX studios set themselves apart by developing proprietary software and rigid pipelines to be able to handle 3000 shot shows. Today, those studios are using more off-the-shelf-software which gives them access to a larger pool of talent that they didn't have to train. Today, they are opening branches in locations where the clients want to work. Today, they are looking at new territories to diversify their revenue stream from features and commercials to web and other non-traditional multimedia projects.

Q: Speaking of Asia, Stuart, you're in a studio in Singapore, what's it like?

Stuart: The Singapore branch was set up five years ago. By entering Asia at an early stage, we were able to expand in scale in the following one and half to two years. The work we're engaged in is widening in scope, we've developed talented local human resources, and we're involved in high end blockbuster work. I feel it was a good investment.

From here on, the issue is how we can get involved in even more major films. Confidence is increasing in London as well as in the Singapore staff and their abilities. We're thinking that for this studio, we want to be more involved in production with Asia as the base.

Jason: We don't have an office in Asia, but we do have nine studios throughout the world. Two advantages of having offices in various countries and regions are tax benefits and time differences.

From the client's perspective, despite using just a single point of contact at Method, if deadlines are tight, a global network of artists can work on their project continuously which maximizes production time.

Although we were initially focused on Hollywood production when we first started working on films, we now have substantial presence in Vancouver and London and their markets are continuing to grow. I think it's important to be aware of changes in global film production in order to evolve with the market demands.

Q: How do you see the Chinese market?

Jason: So for 2012, M.P.A.A. reported 34.7 billion dollars in global box office sales. The US was #1 in box office sales with 10.8 billion, but things are changing. Previously, Japan held 2nd place with China in 3rd, but since, China has overtaken Japan. The growth in China is incredible.

Analysts predict that over the next 5 years they will build 25,000 screens. That's over 13 screens a day. The same report predicts that by 2020, the Chinese box office sales will surpass the U.S. In the coming years. I'm sure many people will be looking to capture opportunities from that growth.

Stuart: While its expansion as a market is certainly fascinating, it's important to know what kinds of films are popular. Last year the Chinese made "Journey to the west" movie was number 1, and below that in 5th and 6th were the Hollywood made VFX movies "Man of Steel" and "Pacific Rim". I think you can see their level of interest in VFX is pretty high.

Jason: In China, the number of international films that can be screened is limited so that they can't compete with domestic films. Because of that, in order to enter the market without having to worry about the limit, many production companies are co-producing with Chinese production companies to try to get around the limit by being a Chinese made movie. However, in order to please the Chinese audience, you get orders to change the story, so there are also some difficulties with that.

■On the future of movies and the future of VFX

Q: Previously you mentioned 4K cinemas, it seems likely that resolution will increase in the future. What are your thoughts on that?

Jason: There used to be a time when even real-time playback at 720 x 480 was difficult. As it became easier, 1080P became the norm. You can easily draw a line and predict that 4K will become easier as well, and perhaps even standard. Right now, 8K sounds crazy, but it exists - and looks incredible!

Stuart: When we were working on Dark Knight Rises, we experienced working with IMAX 70 which is equivalent to 8K. I'd like to make the most out of those kinds of experiences.

Jason: Nowadays you don't need an expensive, traditional film camera to shoot film - people are creating movies on their iPhones which raises the question - what defines a movie? It's not narrowed down by resolution or format anymore.

Q: What do you think about the future of VFX?

Jason: I think it's a really exciting time right now. A lot of new technology has come out which enables us to do things we would have never considered possible before.

As we turn our attention to the global market, I hope we can create mutually inspiring relationships. I grew up watching Japanese anime which is still an inspiration for the work I do today. I hope that China will not only glean inspiration from what we create, but create works that inspire and drive us in turn. It's the sharing of these ideas and building on these techniques that will inspire and challenge the next generation of filmmakers and VFX artists.

Stuart: Just as Jason said I think it's an exciting time. Regardless of the size of the studio, we're at a stage now where anyone is able to create things so real it's as if you had taken a photo of it.

With those kinds of tools in our power, it will be possible for us to tell stories that we thought were difficult to do up until now, and we'll be able to do even more in the future as well.

"Television stations will be the key players in video delivery in the HTML5 era"

Interview with Dr. Jun Murai of Keio University

A session titled "Latest Trends in Video Delivery in the HTML5 Era" was held on the first day of Inter BEE on November 13. Dr. Jun Murai, Dean and Professor of the Faculty of Environment and Information Studies at Keio University, served as a moderator on the panel discussion "Possibilities and Technical Challenges of Video Streaming in the HTML5 Era"

Dr. Murai has been very straightforward and has given insight about the possibilities of using the Internet in relation to basic technologies from the dawn of the Internet era in Japan. "JUNET," which was essentially the origin of the Internet in Japan, was started by Dr. Murai as a connection between Tokyo Institute of Technology and Keio University for personal data transfer.

Moreover, Dr. Murai has also given direction in various settings to the role and standards of Japan in information communications. He was also involved in the development of the "Dubbing 10" application rules relating to personal use of digital television broadcasting in Japan proposed by the Information and Communications Council of the Ministry of Internal Affairs and Communications in 2008.

Currently, Dr. Murai is active in various fields as a facilitator of links between the content business and Internet/IPs starting with broadcasting. For example, as the Chief Director of the IPTV Forum, he has been focusing his attention on activities relating to the standardization of new broadcasting and Internet services, including Hybridcast, through the fusion of broadcasting and IP.

We spoke to Dr. Murai about the current state of HTML5 and the future expansion of this in an interview.

"Broadcasting stations that have video contents will play the leading role on the Internet with HTML5"

■What is the position and importance of video delivery using HTML5 for broadcasters?

"There has been a rapid increase in opportunities to deliver and view video on the Web due to the popularization and increase in speed of the Internet. When we examine the amount of traffic on the Internet, we see that more than 80% of this is video. It has become very important to formulate HTML5 standards to deal with the rapid increase in demand for video in the same way everywhere."

"HTML5 is a standard for Web content and includes a new architecture that supports the current era of video delivery. This standard is aiming to receive a formal recommendation in 2014. HTML5 makes movies, audio and graph renderings possible in the browser without the need for plug-ins. Browsers play and view videos in the so-called "Rich Internet Applications" using the languages that support the latest multimedia, such as JavaFX, Adobe Flash, and Microsoft Silverlight. As it is already known, Adobe is proactively working on the transition to HTML5 in the production environment. For example, the company has discontinued the development of Flash Player for mobile browsers and will release a conversion tool from Flash to HTML5."

"In the past, commercial broadcasters conducted business with a model focused on commercial based income On the other hand, the Internet industry has developed advertising business in a form that sees more direct contact with consumers. This is an earnings structure that is different from traditional television commercials. In the future, real-time two-way communications through video will be deployed on a full-scale basis with the further advance in the use of video delivery. Under these circumstances, there is a possibility that the structure of content in broadcasting will change."

"Moreover, it is possible that the further expansion in the viewing environment of movie delivery by video through HTML5 will also encourage a transformation in the business model of television stations. The importance of viewing on the Internet for television stations will no doubt further increase. Already, the devices used by consumers to view videos are not only by television receivers, but also by sophisticated smartphones and tablet devices. We have arrived at an era when video content is viewed on a daily basis on devices other than televisions with there being many display devices beyond televisions, such as smartphones, tablets and digital signage."

"Of course, there will also be an increase in the demand for the creation of new video content with the continued expansion of devices on which it is possible to view video not limited to television. The position of television stations with the capabilities to continually take up the challenge of high quality by producing a lot of video content will surely be of even greater importance in the future. Television stations in the HTML5 browser era will become key players in video production and delivery by flexibly responding to the changes in the business model of the Internet without clinging to the previous business model of broadcasting stations."

Dr. Jun Murai
Dean/Professor, Faculty of Environment and Information Studies, Keio University

"It enables the provision of the best services for diverse devices and viewing forms"

■What are the challenges in terms of technology/application and the prospects for a resolution to these?

"The mechanism of the delivery of video itself will change through the development of HTML5. It will become technologically easier than ever before to distribute video footage on the Internet. In this digital age despite its limits, even the low-cost television receivers have such functions HTML5 is being standardized in the direction of development by browser technologies that enable minimum but sufficient processing powers even for inexpensive televisions."

"Processing speeds differ depending on the device (e.g. smartphone, personal computer and tablet). Moreover, the amount of data that can be handled also differs. The prerequisite of television broadcasting in the future will be that it will become necessary to provide toward these various devices. At that time, the provision of the best services for each device will be demanded from the style of offering broadly the same services in broadcasting today. HTML5 is intended to provide these variety of services. By utilizing HTML5, it has now become possible to provide the best services for the device capabilities and viewing form. Furthermore, HTML5 can present new directions for broadcasters in terms of adding even higher value to television shows. In the future, the breadth of the size, capabilities and functions of television will continue to expand against a background in which large screen television will be launched under the assumption of viewing broadcasts in 4K/8K. At that time, the direction of adding premium functions and image quality to video that can be processed by high-end televisions will also be considered."

"It will become possible to widely utilize digital signage as a social infrastructure."

■HTML5 seems to have a high level of affinity with digital signage.

"Content delivery by HTML5 will also dramatically change the world of digital signage as there is no selection of the display terminal. When the Great East Japan Earthquake struck on March 11, 2011, a great many commuters were left stranded in the Tokyo metropolitan area because the transportation network (e.g. railroads) came to a halt. At that time, it was the information on large screens installed in streets that were relied on by the people who had gathered in areas such as around train stations."

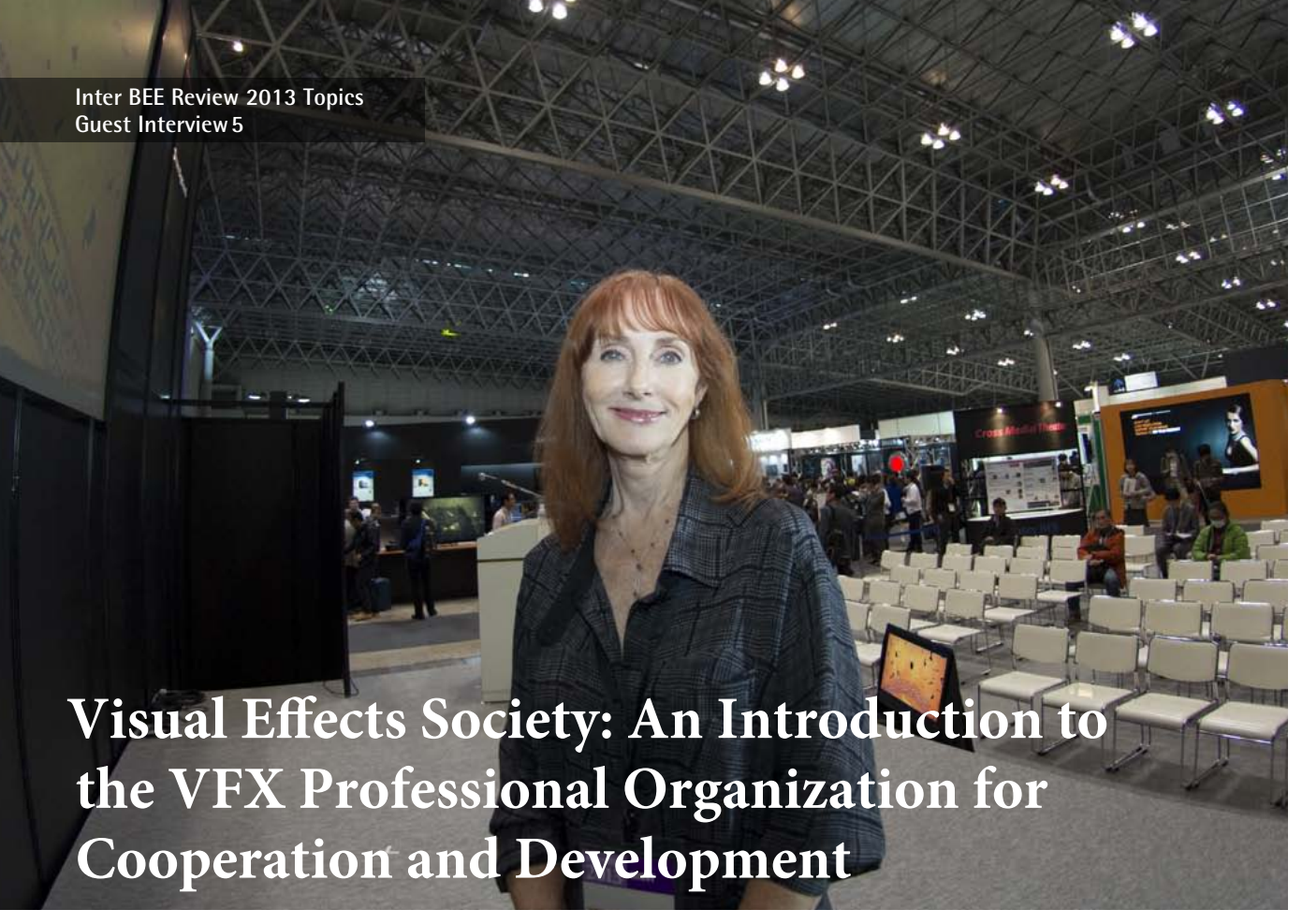
"Tokyo Station Marunouchi Building switched the LED and liquid crystal digital signage in the building to display information related to the earthquake and then continued to televise this throughout the night while at the same time providing accommodation for the stranded commuters. I heard of many other large screens that took the same response, such as in Shinjuku Alta Vision, Kita-senju and Shinbashi. However, the screens in many districts (e.g. Shibuya) continued to show regular commercials despite the huge size of the earthquake, so I also heard people say that they were of no use whatsoever in the disaster. In this way, although there has been a different level of enthusiasm toward digital signage thus far according to the response of the large screen operators, industry groups are increasingly working on displaying prompt and accurate information on screens in the street at the time of a disaster with the aim of standardizing the response in times of emergency."

"There was also a situation in which accidents might have occurred by the rush and stagnation of people seeking disaster information in front of the public digital signage in terminals within the capital, during the Great East Japan Earthquake."

"Accordingly, it is important to have HTML5 standards. With contents delivered in HTML5, smartphones can display and store the disaster information displayed on the signage by connecting the smartphones to the signage using Wi-Fi if the communications are disrupted at the time of a disaster. Such functions can be used on smartphones equipped with a HTML5 browser without the need for a dedicated app."

"HTML5 enables the easy-and-accurate delivery as well as the exchange of information between large screens with different manufacturers and standards. Furthermore, mobile phones can retrieve disaster information from digital signages even in an environment where communications are disrupted."

"Linking the disaster information operated by other media, television, the Internet, radio, municipalities and the government will be carried out more smoothly than ever before. The standardization of HTML in this way will come to have a massive impact on social infrastructure."



Visual Effects Society: An Introduction to the VFX Professional Organization for Cooperation and Development

The Visual Effects Society (VES) was established as a non-profit, professional organization to advance the art, science and application of visual effects (VFX). Mainly led by the American VFX industry, the organization works with the aim of promoting global cooperation among a variety of professionals who are engaged in VFX work.

The organization's mission is to establish a global community of experts.

The VES has adopted a philosophy to enhance education, increase awareness, and promote self-development in the job by assembling knowledge and sharing information.

Its membership is diversified and comprised of various professions and occupations all over the world, including artists, supervisors, producers, engineers, promotion specialists, and film company executives.

Nevertheless, the number of Japanese members is still small; only 24 Japanese joined the Society. To increase the recognition of the VES in the Japanese VFX industry, Ms. Rita Cahill visited Japan.

■Create ideal opportunities for those involved in the VFX industry

"VFX technology plays a core role in the entertainment industry such as film, television, animation, video games, Website contents, rides of amusement parks. In fact, VFX and animation technologies are used in most of the world's all-time best-selling movies.

But not everyone can make VFX. Experienced and skillful artists are required for this technology. A computer is nothing more than a palette, and software is nothing more than a brush.

The VES works to raise the standards of people involved in the VFX industry through education and awards."

The Society currently has over 2,700 members in 32 countries worldwide, as well as eight branch offices called Sections in San Francisco, Vancouver, Toronto, Montreal, New York, London, Australia, and New Zealand.

To educate and raise the standards of not only its members but also the entire entertainment community, the VES organizes international events, film screenings, and seminars in LA and its eight Sections.

In 2013 alone, for example, more than 250 film screenings were held. They did not simply show ordinary movies; the latest motion pictures such as Gravity and Captain Phillips were played, followed by the lectures of the VFX supervisors or producers of the movies screened. The VES offers opportunities to hear firsthand accounts from the key VFX talent of the latest motion pictures about the art and technology of creating these VFX films.

Moreover, an assembly called the VES Summit is held every year in October. An educational day on what is a new reality. It attracts top industry creatives, insiders, film company and studio executives who are looking for new ideas and projects and provides them with new business opportunities.

Furthermore, the organization hosts a wide range of events to support those who want to advance their careers: practical lighting techniques for computer graphics artists, job search preparation and demo reel/resume review, negotiation for your best terms of employment, VFX events with Roland Emmerich, and so on.

■VES Awards: the Society's biggest event of the year

Among the variety of events held by the organization, the VES Awards is regarded as the most important event.

Based on the concept that VFX, animation, and video game professionals are creative assets essential for content production and that they will shape the future of entertainment, the VES Awards recognize the most outstanding works in a total of 24 categories, including live action feature motion pictures, animated feature motion pictures, broadcast programs, commercials, video games, special venue projects, and a student project. The presentation ceremony is held every year.

It features prominent creators and producers. For example, the VES Lifetime Achievement Award recipients include George Lucas (2004), Steven Spielberg (2008), James Cameron (2010), and Christopher Nolan (2011).

Anyone, not only the VES members, can submit nominations for the Awards on its Website though only the VES members can vote. Every year, entries close in late November, followed by online voting in the end of January and a ceremony in early-February.

Believe or not, these wide-ranging activities are all carried out by volunteers. It is because the organization values the voluntarism of its members, based on the belief that they should consider what to do for the VES instead of simply expecting to get help from it.

■Towards the establishment of the VES Japan Section

Unfortunately, the Society not yet gained a high profile in Japan, partially because it has only 24 members in the country.

According to the VES policies, Sections can be authorized where the number of local members exceeds 50. The establishment of a local Section can greatly enhance the activities of the VES in Japan.

The VES has two membership requirements: active engagement in VFX-related work for not less than five years; and endorsement from two existing members.

When a Section is established in Japan with membership exceeding 50, the Japanese VFX industry may also enter a new stage of development.

Ms. Rita Cahill
International Outreach Officer,
Visual Effects Society

The NHK TV Year-long Historical Drama Series "Yae-no Sakura" (Yae's Cherry Blossoms) Fosters Recovery In Northern Japan

The NHK TV Year-Long Historical Drama Series "Yae-no Sakura" (Yae's Cherry Blossoms) was aired on 2013. It depicted Yae Yamamoto, the daughter of Gonpachi Yamamoto who was an instructor in gunnery at the Aizu domain during the end of Edo period to Meiji era in Japan.

One of the key filming scenes used in this particular drama was the Fukushima prefecture, where it suffered substantial damage by the Great East Japan Earthquake. To assist in the recovery process, the drama undertook various approaches.

Mr. Shinsuke Naito, the executive producer of the drama, leads the recovery initiative and goes beyond the drama loop, working energetically to expand helping hands. What went through his mind as he produced the drama? What actions are being taken? We interviewed him and other supporters; Ms. Sugeyama of the NHK Enterprises and Mr. Egawa, the Aizu-Wakamatsu city staff to learn their thoughts and actions on the recovery project.

The true reason for choosing the 'Yae-no Sakura' drama

We learned that originally, the drama story for the year 2013 was not about Fukushima; the change took place after the Great East Japan Earthquake.

Mr. Naito was filming in the Iwate prefecture until the day before the earthquake. On March 11, he was in Tokyo and heard what happened to the filming location.

By then, 80% of the year-long drama shooting had already been completed, but the production work had to be suspended. However, Mr. Naito was concerned more with the local residents than the drama, and he repeatedly visited the affected areas. Mr. Naito described what he saw; "People are strong. My comment of 'so many work toward recovery' was replied by words of 'No, we are already in the recovery process.' Eyes of children who once lost hope are shining again, after seeing how their fathers are working hard to bring back their life. What they experienced is beyond our imagination, but I witnessed first hand their formidable power and strength to raise once again. In fact, they expressed concerns on the unfinished drama production and said that they are looking forward to see it. Then I noticed that there must be something I can do through filming."

The unprecedented disaster and recovery … what can I do through filming and as a broadcast station? After giving much thought on these questions, Mr. Naito made a swift change and steered the course to "Yae-no Sakura".

People lost everything, and so as the Aizu domain. The strength of people raising from nothing, and their inner strength to move forward, believing in what is right is right. Decisions were made to film the drama with these thoughts in mind.

The Aizu-Wakamatsu city gave full support on the drama production. Mr. Egawa, who was originally responsible for academic-industrial ties, led the "Yae-no Sakura" project and assisted in producing the drama in various ways.

VFX (Visual FX) are used heavily in this historical drama, more than that of a movie. The surprisingly many scenes of the then landscape, situation, culture, and fierce battles were created by VFX. The city gave support in these areas as well.

"The Aizu University is a College of Computer Science and Engineering, equipped with a motion capture studio. Here, data was created for the scene on the Chomei temple fight between the Tosa and Aizu armies. We also took advantage of the academic-industrial ties and included university students in the drama."

Other collaborative efforts include the Tsuruga castle fighting scene, where the camera flew over the setup for filming. The castle was created by computer graphics, and data on the wire frame was generated by a local company.

Going beyond the drama loop expands the path to recovery

Outside the drama production, the NHK Enterprises prepared a projection mapping for the local residents to enjoy and use for tourism resource. The "Tsuruga castle projection mapping Haruka" displays the history and future of both the local and the castle.

"The Tsuruga castle has a special place in the hearts of local residents; their feelings run deep for this structure. So we started from familiarizing ourselves with the local, as poorly produced presentation will be taken as a 'scribble' . We also had to contend with the pressure to create an image to match with the music written by Ryuichi Sakamoto", says Ms. Sugeyama.

Another mounting challenge was to match the video projection with the complicated structural designs of the castle. With trial and error, the entire preparation apparently took two to three months.

So many people turned up on March 9 and 10 to watch the presentation at the Tsuruga castle; they even had to limit the crowd size.

Encouraged by an overwhelming response, plan was made to run the projection mapping show again on March 15 to 16, and 19 to 23, 2014.

Not even satisfied with these activities, Mr. Naito is leading the 'Fukushima Sakura Project' as well. New strain of cherry blossoms, developed by the Forestry and Forest Products Research Institute, are planted in all parts of Japan as a sign of Fukushima recovery with an appeal of never to forget the Tohoku recovery, not until at least these saplings grow and blossom.

"Do not forget what happened; that is important. The TV drama ends, but these cherry blossoms will continue to grow. We want people to watch these and remember the recovery. It wasn' t about the "Yae-no Sakura" drama … rather, it walked hand in hand with the recovery, and the process will continue long after the drama completion. My desire is to reach out to all people and ask "Why not join us?"

Mr. Tadashi Egawa
"Yae-no Sakura" Project Team Head
Aizu-Wakamatsu city

Ms. Akemi Sugeyama
Director of Business Development,
Planning and Development Center
NHK Enterprises, Inc.

Mr. Shinsuke Naito
Production center (drama program) chief,
Production #2
Japan Broadcasting Corporation (NHK)

To solve challenges in linking up broadcasting and communications with IPDC
Development of services to advance toward the Tokyo Olympics

Digital terrestrial television broadcasting began in Japan ten years ago on December 1, 2003 with terrestrial analog television broadcasting officially coming to an end on July 24, 2011. The digitalization of television has thus been completely regularized. Due to this, some bandwidth that had previously been used for terrestrial analog television broadcasting became "abandoned VHF frequency sites." Among this, the frequency bandwidth of VHF-High (V-High) 207.5MHz to 222MHz is now being used primarily in digital broadcasting for mobile devices as V-High multimedia broadcasting over the national block. Specifically, a service called "Mobilecasting" (NOTTV) started operations from April 1, 2012. In contrast to this V-High, a plan is being advanced for the frequency bandwidth of VHF-Low (V-Low) 99MHz to 108 MHz to be used in two broadcasting services: Regional block VHF-Low multimedia broadcasting and digital community broadcasting. In digital broadcasting for mobile devices, "IPDC (IP Data Cast) has been incorporated into the standards as a mechanism to perform simultaneous multi-destination data delivery by placing IP (Internet Protocol) packets on broadcast waves.

The "Startup of Olympic Radio in 2020" session that took place in the Cross-Media Theater on the first day of Inter BEE 2013 on November 13 was held through joint planning between the V-Low Digital CommunityRadio Group and the IPDC Forum. At this event, three people took to the stage to talk about the diversity of broadcasting services in the digital broadcasting era: Mr. Katsuya Watanabe, Deputy Director-General of the Ministry of Internal Affairs and Communications (in charge of the Information and Communications Bureau), Mr. Taro Kimura, Managing Director of Zushi Hayama Community Broadcasting Company representing the Community Simul Radio Alliance (CSRA), and Prof. Ichiya Nakamura of the Graduate School of Media Design at Keio University, who was representing the IPDC Forum.

Mr. Taro Kimura
Representative of
Community Simul Radio Alliance (CSRA) /
Managing Director of Zushi Hayama
Community Broadcasting Company

Mr. Katsuya Watanabe
Deputy Director-General of
the Information and Communications Bureau,
Ministry of Internal Affairs and Communications

Prof. Ichiya Nakamura
Representative of the IPDC Forum,
Graduate School of Media Design at Keio University

■To the provision of real and attractive services

At Inter BEE this year, the topic of new broadcasting that takes advantage of the benefits of digital broadcasting together with 4K was introduced in a variety of ways. This has become a valuable opportunity to be able to see what progress is being made in the diversification of broadcasting and the sophistication of services through the progression of cooperation with IP.

Together with the aforementioned session in the Cross Media Theater, continuing on from the previous year, an IPDC exhibition was held by the IPDC Forum at Inter BEE this year. In addition, there was an introduction to various solutions in digital radio, such as communications in an emergency by the V-Low Digital Community Radio Group. Furthermore, there were introductions to solutions regarding IPDC under the theme of "IPDC WORLD 2013" with an exhibition using IPDC technology in three corners: "Lifeline Corner," "Next-generation Communication Systems Corner" and "Mobile Next-generation Broadcasting Corner." Moreover, there was also a demonstration of live delivery using IPDC in both booths of NTT Electronics and ASTRODESIGN.

CSRA also had a booth and gave a demonstration on digital radio. Mr. Kimura took part in the booth for two days. Together with the search in technical and service terms for efforts toward new broadcasting services in the V-Low band, attention was also focused on this as a valuable source of information in an emergency.

IPDC is the most anticipated of these in the role of taking advantage of benefits through the convergence of communications and broadcasting as a way of next-generation broadcasting. The driving force behind this is the IPDC Forum.

Prof. Ichiya Nakamura, a representative of the group, spoke as follows about the aims of the IPDC Forum.

"The linkup between broadcasting and communications that has been discussed since the start of the development of terrestrial digital broadcasting has a 20 year history, but a clear picture still has yet to emerge. Accordingly, we launched the IPDC Forum five years ago as a private organization in order to solve various challenges with the idea of attempting to start new services by incorporating the communications technology IP protocol as an approach on the side of broadcasting stations."

"We have performed various experiments and service development with the results of these being exhibited in the booth of the IPDC Forum at Inter BEE 2013. I feel that we have finally arrived at a point where it is possible to provide actual services for streaming delivery to iPhones/iPads as shown in the exhibition of the Multiscreen Broadcasting Study Group. The Multiscreen Broadcasting Study Group is conducting research in order to create the "Second Screen" platform by bringing together 37 commercial broadcasting companies. In addition, we are also considering services that combine broadcasting and signage as signage unique to Japan and would like to continue tackling challenges around this area."

The Community Simul Radio Alliance (CSRA) is a national organization of simulcast radio that delivers the self-produced programs of community FM stations on the Internet. The nature of radio waves means that the listening range of FM broadcasting waves is limited, but it is possible to listen over wider areas through delivery by IP. Through the development of IP in this way, community FM is also attracting attention as community-based information media in emergencies. Currently, the CSRA has adopted the IPDC method.

Mr. Taro Kimura, representative of CSRA / Managing Director of Zushi Hayama Community Broadcasting Company, recalled that “initially, we thought of delivering disaster prevention information using the digital carousel system” prior to adopting IPDC in community broadcasting. However, he explained that after this “the decision was made to adopt IPDC as the means for this from listening to Prof. Nakamura suggest using IPDC and from the fact IPDC is extremely easy to use for what we want to do.”

While evaluating IPDC, Mr. Kimura gave “what to deliver as digital community radio (as content in order to differentiate with other media) by IPDC” as the “biggest challenge in IPDC and digital community radio.” It is possible for IPDC to also be provided on mobile phones, so uniqueness is demanded compared to many other broadcast and delivery content. Moreover, while still being radio, there is a wide range of options when designing content in terms of the technical possibilities for the delivery of radio. “There are many video sources in the world and video compression technology has also evolved, so it is also not possible to ignore video just because it is radio.”

■Possibilities of a new business model that will bring about interactivity

Mr. Kimura is also looking forward to the business possibilities through IPDC.

“While we are thinking about services and business models, I think it is best if we make these if we have the necessary system. For example, it would be easy to come up with a pizza delivery service for smartphone users by using IPDC. Furthermore, it is also possible to implement concierge functions in car navigation systems installed as standard on automobiles for community broadcasting through IPDC. It is technically possible to make restaurant referrals and reservations by voice inquiries and also to provide route information up to that restaurant.” (Mr. Kimura)

There are also expectations for businesses through V-Low multimedia broadcasting support in such car navigation systems, but Mr. Kimura says that “I think smartphones are necessary in order to spread V-Low multimedia broadcasting over an even wider area.” Prof. Nakamura also explained that “the development of attractive, visible and real services and business models are important” in order to popularize V-Low multimedia broadcasting. “I think it is very important how we capture smartphones for which business is fast moving.”

Mr. Kimura talked about the importance of interactive support for V-Low multimedia broadcasting and the necessity of establishing a revenue model that corresponds to this with the following explanation: “Advertising (commercials) in recent years have mostly been in the outcome-based compensation mode. Interactive services are very important in terms of business. We need to think about mechanisms to profit from this.”

■Efforts toward the 2020 Tokyo Olympics

Prof. Nakamura revealed they are considering the IPDC usage method for the Olympics by stating that “we are thinking about whether personalized services are possible in broadcasting for people coming to Tokyo from all over the world” toward the 2020 Tokyo Olympics. The “Olympics Radio” proposed by Mr. Kimura is “one of the methods” for this.

In addition, IPDC will come to be useful as a means of sharing information in an emergency. “It will become possible to deliver information accurately even when a dangerous event occurs across the entire country by combining community broadcasting and radio so that this can be used during a disaster.” (Prof. Nakamura)

“Specifically, by utilizing IPDC in broadcasting it is possible to accurately provide regional information and information also useful in regional disaster prevention over a wide variety of media, including information displays that take advantage of multi-screens, smartphones, disaster prevention radio and 4K/8K size televisions.” (Prof. Nakamura)

Mr. Katsuya Watanabe, Deputy Director-General of the Ministry of Internal Affairs and Communications, agreed with this description by Prof. Nakamura. “Media measures directed at the Olympics are an important theme together with the safety/security of the people in their everyday lives as a developed country for disaster prevention measures. It is necessary to be prepared to be able to provide support in the event of a disaster so that all those coming to Japan from overseas are also able to enjoy the Tokyo Olympics with peace of mind. The transmission of information in multiple languages, including the dissemination of information in advance, is something that is very meaningful.”

Furthermore, Mr. Watanabe gave an example about public viewings utilizing post offices across the nation that had been given previously by Mr. Minami, Deputy Director-General of the Ministry of Internal Affairs and Communications. “Although not everything will be broadcast with IPDC, we will set up post offices across the nation with an Olympics 8K viewing environment as bases of public viewings. Through this, it will be possible for every citizen to watch all the events in real time. At the same time, it will be possible to provide the function of distributing safe and secure disaster prevention information in the public viewing bases across the country by using the functions of IPDC.”

Mr. Watanabe then continued to speak further on this topic. “In regards to the method of providing programs in 8K, it will be important to verify, including in terms of technology, the potential of current terrestrial broadcasting/satellite broadcasting and also consider a mechanism for transmissions by utilizing the Internet at the same time. Moreover, I think it is very important to also discuss the utilization of the Internet so that it is possible for regions outside of Tokyo to be able to view the Olympics not just limited to in post offices.”

Opening of Inter BEE 2013 Exhibition of 918 companies – Further surpassing last year's record Start of the introduction to 2020

Inter BEE 2013 – Professional Show for Audio Video and Communications – opened on November 13. An opening ceremony was held for this event in the International Exhibition Hall Central Entrance. This ceremony brought together officials and guests with an opening declaration, congratulatory addresses and tape cutting.

At the beginning, there were greetings by Satoshi Shitara, Operating Officer, Executive Vice Presidents, Director, of the organizer of this event the Japan Electronics and Information Technology Industries Association (JEITA). Inter BEE is positioned as the "largest broadcasting equipment exhibition in Asia that brings together under one roof video, broadcast equipment, audio equipment and lighting equipment at a world class level equivalent to the NAB in the U.S. and the IBC in Europe." Mr. Shitara then reported that the record number of exhibitors at last year vent had again been exceeded. "Inter BEE is celebrating its 49th anniversary this year with a record number of exhibitors of 918 companies. There is also a record 536 companies among these from 30 countries/regions overseas." He emphasized that this "reflects the high level of interest in the exhibition this year from in Japan and overseas." (The number of exhibitors in the previous year was 871 companies with 491 of these coming from overseas.) Finally, Director Shitara closed his remarks with the following. "We plan to welcome 30,000 highly sensitive users over the next three days from today. I hope Inter BEE this year will play its role as a place of information exchange and business creation for exhibitors and visitors. It is my wish for Inter BEE to be effectively used as a once a year opportunity to obtain great results."

Tape Cutters (From left)

Mr. Kazuhiro Kanayama
Chairman, Inter BEE 2013 Organizing Committee

Mr. John Ives
Director of Business Development & Technology, IABM

Mr. Toshio Mamiya
Director, Information Policy Division,
Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry

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

Mr. Fusaki Matsui
Secretary General, Association of Radio Industries and Business

Mr. Satoshi Shitara
Operating Officer, Executive Vice Presidents, Director,
Japan Electronics and Information Technology Industries Association(JEITA)

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

"The Tokyo Olympics will also be a major turning point for the broadcasting and equipment industries"

Following on from this, Toshiyuki Minami, Deputy Director-General of the Ministry of Internal Affairs and Communications (in charge of the Information and Communications Bureau), and Toshio Mamiya, Director of the Information Policy Division, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry, gave a congratulatory address. Mr. Minami also participated as a guest at the opening ceremony of Inter BEE last year. He recalled talking about the completion of the transition to terrestrial digital broadcasting and the decision on efforts toward the increase in sophistication of broadcasting services. He then expressed that in the one year since then there had been rapid developments in the industry. Specifically, the formulation of a road map pertaining to 4K/8K broadcasting, the establishment of the NexTV Forum and the conclusion of the supplementary budget. He then stated the following. "The great leap toward a place where things are really starting to get moving is down to the 2020 Tokyo Olympics. This is extremely happy news." "The year 2020 when the Tokyo Olympics will be held is one that will also be a major turning point for the broadcasting industry and the related broadcasting/video equipment industry in that sense. He stated that the 1964 Tokyo Olympics were also an "extremely important year for broadcasting." He then gave an example of international broadcasting through a satellite relay of the marathon. "Impressive content will be provided for the second Tokyo Olympics, including the Paralympic Games, 24 hours a day through various media – not only by airborne signal but also BS, CS, cable, IPTV and the Internet. He then closed his speech with the following remarks. "I sense that the enthusiasm of those participating in Inter BEE this time is different. There is a desire to provide wonderful content that gives courage and inspiration to many people in seven years' time through the competition over the technology and enthusiasm of everyone involved toward 4K/8K."

Mr. Toshio Mamiya
Director, Information Policy Division, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry

"There is a possibility that the progress in broadcasting equipment will change the structure of society"

Toshio Mamiya, Director of the Information Policy Division, Commerce and Information Policy Bureau, Ministry of Economy, Trade and Industry, expressed the following at the beginning of his remarks. "In recent years, the broadcasting industry has welcomed a period of upheaval. A new way of broadcasting is being sought due to, for example, the appearance of interactive media, the spread of new devices and the advent of 4K/8K television. Under these circumstances, the importance of Inter BEE is further increasing." Moreover, with saying the "2020 Tokyo Olympics will be a key factor when thinking about the state of broadcasting in the medium to long term" he displayed his enthusiasm about this with the following. "In order to fully deliver the passion of the Olympics to people throughout the world, it is necessary to have high quality video with a sense of reality, high quality sound and the technology that has been cultivated over the years. The Ministry of Internal Affairs and Communications, in cooperation with the Ministry of Economy, Trade and Industry, will continue to be devoted in the future to developing attractive content through improvements to the environment and the Cool Japan program for the further use and application of IT and to introduce a taxation system that encourages R&D which gives birth to technological innovation and which promotes capital investment." Further, he talked about his hopes and expectations. "There is great potential to improve the convenience, comfort and efficiency of people' s lives and economic activity with broadcasting technology. At the same time, the progress of broadcasting technology may also change the structure of the world and the state of society itself. I would like Inter BEE to accelerate the pace of this movement and become the trigger to move toward an even better direction." After this, there was an opening declaration by Kazuhiro Kanayama, Chairman of the Inter BEE 2013 Organizing Committee. Finally, there was a ribbon cutting ceremony for which there was participation by representatives from the Ministry of Internal Affairs and Communications, the Ministry of Economy, Trade and Industry, the Association of Radio Industries and Businesses, the IABM, the Japan Electronics and Information Technology Industries Association and the Organizing Committee.

The 2020 Tokyo Olympics will be ripe with opportunities for broadcasting and communications cooperation – This will be the perfect opportunity to accelerate the pace of next-generation broadcasting

The Inter BEE reception party was held in the APA Hotel Tokyo Bay Makuhari located adjacent to the Makuhari Messe venue at 18:00 on the first day of the event (November 13). This reception party was held as a forum for business-to-business exchanges with the invitation of executives from sponsoring bodies, partner companies, the Japan National Broadcasting Company (NHK), commercial TV stations and exhibitors who cooperated with the holding of Inter BEE. In total, this event was attended by more than 500 people from the broadcasting and video industries. This event was held for the first time in four years last year. Following on from this, this event saw an active exchange of opinions throughout the venue on new prospects in the broadcasting industry, including the promotion of 4K/8K and deployment for the 2020 Tokyo Olympics, for trends after terrestrial digitalization.

Kazuhiro Kanayama, Chairman of the Inter BEE 2013 Organizing Committee, took the podium to give the opening greetings prior to the event. In addition to this, there were greetings from Takafumi Aoki, Secretary General of the Japan Commercial Broadcasters Association, as a guest. The toast was led by Keiichi Kubota, Executive Director General of Engineering at NHK.

Mr. Kazuhiro Kanayama
Chairman of the Inter BEE 2013 Organizing Committee

Mr. Takafumi Aoki
Secretary General of the Japan Commercial Broadcasters Association (JBA)

Mr. Keiichi Kubota
Executive Director General of Engineering Japan Broadcasting Corporation (NHK)

"Over 30,000 visitors in three days with 918 exhibitors from 31 countries/regions around the world"

At the reception, Kazuhiro Kanayama, Chairman of the Inter BEE 2013 Organizing Committee, took the podium and gave a speech on behalf of the organizers.

Chairman Kanayama started his speech with an introduction to the fact this is the 49th Inter BEE exhibition with the commemorative 50th exhibition to be held next year. He made an appeal about this exhibition that brings together the latest wide-ranging themes and issues that cover broadcasting, video and communications. He gave as themes of the exhibition this year the "ultra-high resolution imaging technologies of 4K/8K," the "new business possibilities of second screens and smart televisions" and the "new business models in terms of the effective utilization of radio waves (e.g. V-Low), digital signage and projection mapping."

"Large scale international events are closely related to innovations in broadcasting"

Takafumi Aoki, Secretary General of the Japan Commercial Broadcasters Association, stood up to give a message of congratulations and relayed his impressions of visiting the venue on the first day. "It made me feel that the economy has recovered to see this exhibition for professionals held in such grand style." Moreover, he added "I felt very happy to sense that the broadcasting industry is attempting to walk down a new path."

Mr. Aoki also spoke about the decision to award Tokyo the 2020 Olympic/Paralympic Games that had been made just two months prior (IOC General Assembly on September 7, 2013) to Inter BEE. "This is truly great news for all of us. I have great hopes that this will get everyone excited." He then touched upon his expectations for the event. "There is a deep relationship between international-scale sports events and innovation in broadcasting and video. The previous Tokyo Olympics also lived up to the expectations of all its viewers by the utilization of a lot of equipment and the realization of many innovative video techniques calling upon video and passion through this."

Mr. Aoki then continued by turning to the subject of capital investment in broadcasting stations. "We seem to be truly arriving at the file-based era." He then pointed out that it has been ten years since support for terrestrial digital broadcasting began centered on three major cities in 2003. "(Terrestrial broadcasters) will soon be approaching the update phase of master equipment." He then stated that "while looking at trends in filing in processes from the recording of materials to editing and sending or toward the next generation of broadcasting services, there will be the introduction of even more efficient systems with higher quality." He was implying that with many broadcasters coming toward the update phase this will be considered with a careful eye on next generation broadcasting.

To end his speech, Mr. Aoki said "Inter BEE this year has a wealth of technical information for stations such as this and is a valuable event. He then closed his remarks by saying "I am truly grateful that manufacturers are listening to the selfish demands of broadcasters."

"The new phase after digital terrestrial is a chance for further growth"

Keiichi Kubota, Executive Director General of Engineering at NHK, took to the stage to give the toast and expressed the following about the two major themes in the industry at the moment of "services that combine broadcasting and communications" and "4K/8K."

"The time is finally ripe for the fusion of broadcasting and communications. NHK has also just started hybrid casting, but we are still considering what services to enrich to add new value to broadcasting content and how it will be possible to capture new needs."

"In 2013, attempts have been made to build new content all over the world for 4K/8K broadcasting and discussions have also begun on this in broadcasters. Japan has also made a road map for this and is moving ahead with various preparations all over the nation. Super Hi-Vision is wide up of a very broad range of supporting technologies. The fields of application are very broad and are not limited to broadcasting. The implementation of this will make it possible to contribute to a wide range of industrial sectors including broadcasting in Japan."

Mr. Kubota ended with the following analysis. "In this way, after the completion of digital terrestrial broadcasting, the broadcasting industry has once again arrived at a high stage and is attempting to leap on from there. However, the 2020 Tokyo Olympics will accelerate the pace of this ever more." He then gave the toast with the following words. "I hope that the occasion of Inter BEE is one with great significance in which a great many specialists from Japan and overseas debate and exchange ideas.

Increase the connections in and extent of post-production and CG production! "Production & Creator's Night"

A place of interaction with top creators who can rarely meet

■A place of interaction for creators, including theater speakers

There were guests at this event from home and abroad who had been invited to the various panels at the Asia Contents Forum. At this event, promotion and recruitment booths had been set up for people involved in post-production and CG production. This event was the "Production & Creator's Night" that was held on the evening of the second day of Inter BEE for industry professionals and students involved with VFX.

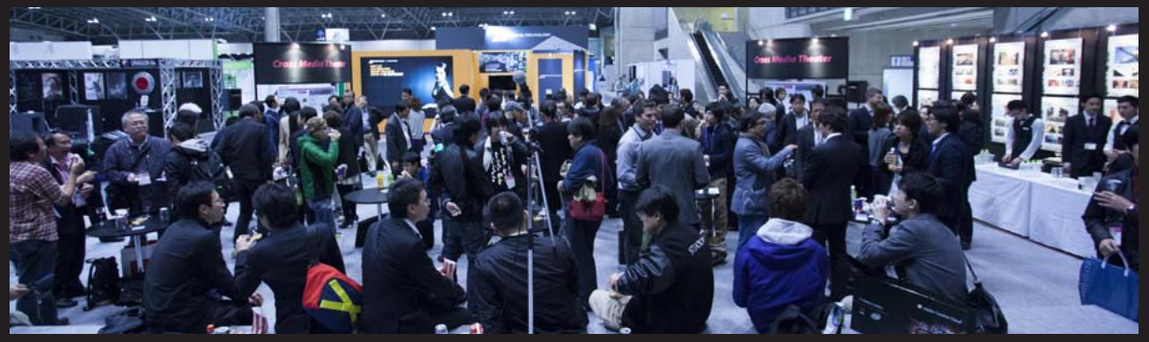
■Direct exchange of information with top creators from home and abroad!

The concept of the 2013 Asia Contents Forum was "Special VFX." Therefore, at this event, there was a full program distinctive of Inter BEE with guests from organizations and VES for professionals of VFX focused on America and speeches by VFX supervisors from Double Negative, Method Studios and productions dealing with Hollywood blockbusters.

With the cooperation of the Japan Post Production Association, at this event, Omnibus Japan, Digital Garden and McRAY from Japan each put on a showcase together with the making of the special video and state-of-the-art technology they had handled.

The schedule on this night was so packed that no matter how much time there was it was never enough.

The "Production & Creator's Night" was held while the venue of Inter BEE was closed directly after the end of all programs on the evening of the day that attracted the attention of those involved with CG/VFX. This was a special place that could be attended only by those involved in the industry in possession of a ticket.



Inter BEE would like to become a place for VFX

■This was a meaningful exchange meeting because it was from Inter BEE

This year was the second time to hold this event where it is possible to directly talk with guests from both Japan and overseas, as well as where it is possible for those from various companies, including productions exhibiting booths, to freely interact.

This event saw Inter BEE go beyond the boundaries of being an equipment exhibition with this being an opportunity for those on the creative side producing videos to make strong appeals about their work. Even though this was a closed meeting held directly after the closing of Inter BEE, it was a great success with 110 attendees.

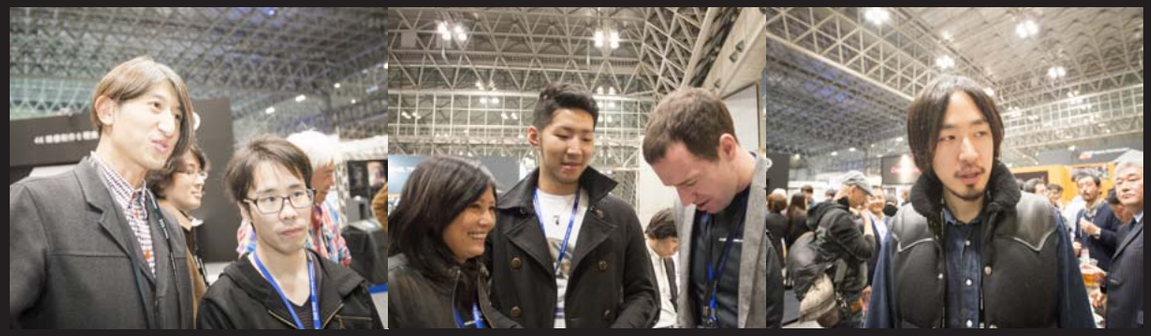
We received the following comments from the attendees of this event.

"I come to Inter BEE every year, but the 3D movement died out in no time quite recently and it is now all about 4K/8K. How will content catch up with the evolution of digital technology? What will we offer there on the production side? While the preparations around this are gradually coming together, I think the Olympic Games will spur this on."

"The seminar was fun. This was a golden opportunity for promotion because it is not possible to bring together and showcase all technologies in one package unless there is an event like this. In fact, we received the acknowledgment of 'this thing is being done' by existing customers, so this was really good."

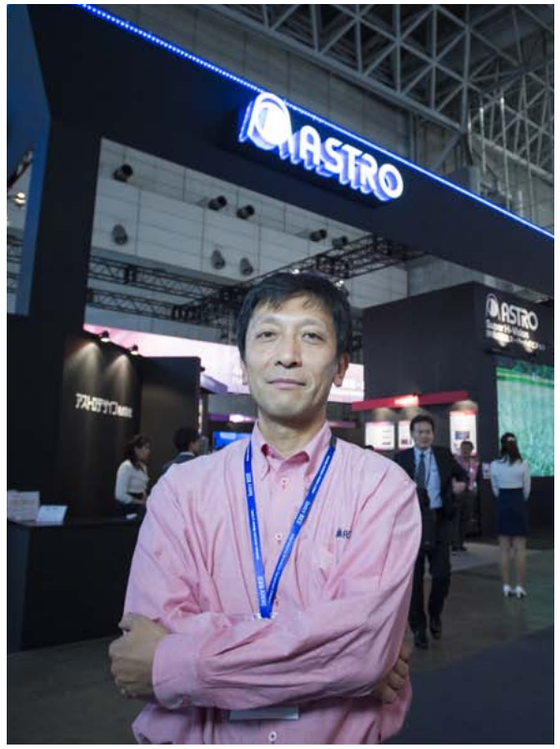
"It was my first time to attend this party, but I was surprised because it was extremely exciting!"

Despite the fact this event was scheduled to last for only one hour, because everyone was unexpectedly in such high spirits, the time was extended. We would definitely like to offer further events at the next Asia Contents Forum.



Industry-leading 8K technology, the chance to view real 8K images on a 200-inch screen

The ASTRODESIGN booth showcases a large screen around 200 inches in size, combined with an 8K video wall processor developed by the same company, representing a world-first large video system viewable in real 8K image quality for the first time. The display device uses a tile-type LED light source DLP rear project unit made by Christie Digital Systems, Ltd. and featuring 96 'micro tiles' (8 across × 12 down). Each 'micro tile' comprises a small screen of 20 inches in size, which, when combined, facilitate free-form creation. The material screened at the exhibition venue, in addition to NHK and the in-house 8K video footage produced by ASTRODESIGN, also included 4K content such as Sky Perfect JSAT. The in-house material comprised shooting in the Japanese garden of Showa Kinen park, in Tachikawa city in Tokyo as well as hills of cosmos flowers there and featured the use of the 8K Super Hi-Vision camera developed by the same company. The booth within the exhibition showcased the same camera used at the time. Since the 8K "AH-4800" camera head, 8K "AC-4802" CCU camera, 8K "HR-7512" SSD recorder and a 4K monitor such as "DM-3432" were all developed by the company in-house, the 8K video production effectively functioned as a demo to showcase the company innovation. We asked the Manager of the First Sales and Marketing Department at ASTRODESIGN, Michinori Sano, about the response from attendees and Inter BEE placement.



Mr. Michinori Sano
Manager, Sales & Marketing Dept.1
ASTRODESIGN, Inc.

Going all-out to promote ultra-high-resolution images of 8K

■What is the objective and theme of this exhibition?

For over a decade and mainly working alongside NHK, we have engaged in developing various equipment using super hi-vision (8K) high-resolution images. Just as in this exhibition, the number of 4K solutions and devices on show is increasing every year, and this trend is expected to continue. Accordingly, we saw the potential to promote ourselves as a company which has been working on 8K technological development, which goes the extra mile ahead of 4K, for many years. If 8K is possible, of course 4K is also possible. Our top priority for this year's exhibition was to ensure optimal promotion of our position as a leading company handling ultra-high-resolution images in the 8K class, namely a step ahead of 4K. We thought the best way to promote 8K would be to show visitors the raw 8K image quality on a large screen on stage, and focused on the Christie micro tiles; previously used to display 4K demonstration images at our private exhibitions etc. The use of Micro Tiles enables a large 8K screen to be established by increasing the number of units. Moreover, it also eliminates the need to darken a room like a front projector, meaning the large 8K screen can be used to promote to a large audience in an open and illuminated space. After consulting with the manufacturer and rental company, we established a large 8K screen display system of around 200 inches in size, on which real 8K content shot by our 8K transmission equipment and 8K camera was shown. We think our 8K initiatives had an exceptionally positive effect. Given the fact that we successfully reproduced super hi-vision real 8K large screen images, which were previously only viewable on NHK, at the ASTRODESIGN booth, we are also confident we won some new customers as well.

Visitors' eyes were glued to the powerful large screen with 200 inch real 8K images

■How was the response from visitors?

Our booth was the only one at the large-scale Inter BEE to show raw 8K images on a 200-inch size screen, which was a big plus in terms of attracting human traffic to our booth as well as the eye-catching effect. Naturally, since most of the in-booth exhibition focused on 8K and 4K, I think we were successful in getting visitors involved and really attracting their interest. Catalyzed by the press release concerning the 200-inch 8K large screen, issued in cooperation with Christie Digital Systems on the first day, I realized that we had more visitors to our booth than in previous years.

The key and largest exhibition of a series of overseas and private shows Expectation of enhanced customer appeal

■How do you position Inter BEE?

It's the key exhibition and also the largest event, even in comparison to NAB and our private shows, etc., on which we also focus. It's a great opportunity to boost awareness of our initiatives among those in the broadcasting industry, our major clients and we remain very optimistic about Inter BEE in future as well. We immensely appreciate the fact that this exhibition has given us a great forum at which to promote our initiatives to society for 38 years. We hope the scope will expand to encompass a larger exhibition, which can also attract more visitors in future.

With a theme of “Broadcast Innovation: Toward richer video expression,” Ikegami Tsushinki presented its products at Inter BEE 2013. One of its notable items was the Super 35mm Format HDTV Camera System “UnicamHD HDK-97ARRI.” It is Ikegami's latest camera born out of collaboration with ARRI, a leading global digital cinema company. The product achieves a high S/N, high sensitivity, and a wide dynamic range by using a Super 35mm CMOS sensor which focuses on individual pixel size rather than pixel count. Ikegami showed off the item as a HDTV camera that can produce cinematic expressions in the existing broadcasting system. In addition to this system camera, the company exhibited the 3CMOS super-high-sensitive HDTV camera “HDL-4500.” Delivering clear color images under lighting as dim as starlight, this product would be ideal for use as an informational camera and the like. Moreover, Ikegami showcased its color monitors that use full high definition (FHD), organic light-emitting diode (OLED) technology in the devices: HEM-2570W (25 inch) and HEM-1770WR (17 inch). They are master monitors that feature a wide viewing angle, wide dynamic range, high-contrast sharp video reproduction supported by rapid response, and stable black gradation. Another item on display was “MuPS-4000 series,” a switcher that can be used for applications such as large-scale routing and live production by configuration with the appropriate modules. Furthermore, Ikegami and NHK (Japanese public broadcast station) collaborated to exhibit a 120-GHz-band FPU for uncompressed Super Hi-Vision (8K) signal transmission, revealing an approach to the next-generation broadcasting technology.

Taking this opportunity, we interviewed Mr. Kazuya Oyamada, Manager of Product Strategy Department, Research & Development Division, Ikegami Tsushinki, about what reaction he got from the audience and how his company considers Inter BEE in its business.

Broadcast Innovation
—Toward Richer Video Expression—

Mr. Kazuya Oyamada
Manager
Product Strategy Department
Research & Development Division
Ikegami Tsushinki CO., Ltd

Ikegami and NHK collaborated to exhibit a 120-GHz-band FPU for uncompressed Super Hi-Vision (8K) signal transmission

■Tell us your theme and objectives for this exhibition.

"Broadcast Innovation: toward richer video expression" was the theme of our exhibition this year. As a broadcast camera manufacture, our company has been developing Super Hi-Vision cameras promoted by NHK. With 8K solution for the next-generation Super Hi-Vision broadcasting, we attracted much attention from the audience this time. In our booth, the native 8K content produced with our 8K Super Hi-Vision camera was played on the 85-inch LCD for large-format, high-definition viewing. In cooperation with NHK, we also exhibited a 120-GHz-band FPU for uncompressed Super Hi-Vision (8K) signal transmission, disclosing the progress of our efforts towards Super Hi-Vision test broadcasting for the Rio de Janeiro Olympic Games in 2016. We have developed Super Hi-Vision broadcast cameras in cooperation with NHK for more than 10 years, and those cameras have produced many pieces of 8K content. After years of R&D on 8K and other high-definition video systems, 8K and 4K development finally began to take shape a couple of years ago, so we are now expanding our efforts into exhibitions of these products. Based on our years of experience developing 8K, we illustrated the shift from 4K to 8K with our exhibits. In addition, we showcased 25-inch and 17-inch OLED master monitors for our first time. Though similar products have been commercialized by other companies, our monitors reflect our commitment to CRT-like image quality. They can also appeal to customers with their other features such as quick response and high-contrast unique to OLED monitors.

The introduction of these monitors broadened the scope of selection for users. In fact, the products seemed to attract high interests from the audience.

Ikegami booth attracted more foreign visitors than ever

■What reaction did you get from the audience?

This year we had more visitors than ever before. In particular, our booth seemed to magnetize many visitors from abroad, especially from Asian countries. We have actually realized that more and more global attention is being paid to the next generation broadcasting. We received a large number of questions about the items displayed and got a strong sense from the audience that they paid even closer attention to our products than usual. The exhibition as a whole also seemed to be more exciting than the last. I think this year's Inter BEE raised the awareness of significant development progress in the next generation high-definition broadcasting, such as 4K and 8K, led by television stations.

Ikegami puts its all into this largest broadcast equipment exhibition in Japan

■How do you consider Inter BEE in your business?

We put our energy into the US NAB Show, which is the first trade show of the year, as well as IBC in Europe and other broadcast equipment exhibitions. Especially, Inter BEE is Japan's largest trade show targeting domestic broadcasters and other customers, so we consider it as one of the most important fairs. It is one of the largest exhibitions, and we make company-wide efforts for this. Every year we put our all into Inter BEE to express our ideas to many users.

Electronic-tag entrance tickets would be useful

■Do you have any request to the Secretariat?

The passages were wider here than the last venue, which reduced some congestion at the time of bringing exhibits in. It would have been even better if we had been able to get information about the audience by using, for example, electronic-tag entrance tickets, just as the Tokyo Motor Show and other exhibitions do. We would like the Secretariat to adopt an audience identification system appropriate to the IT age.

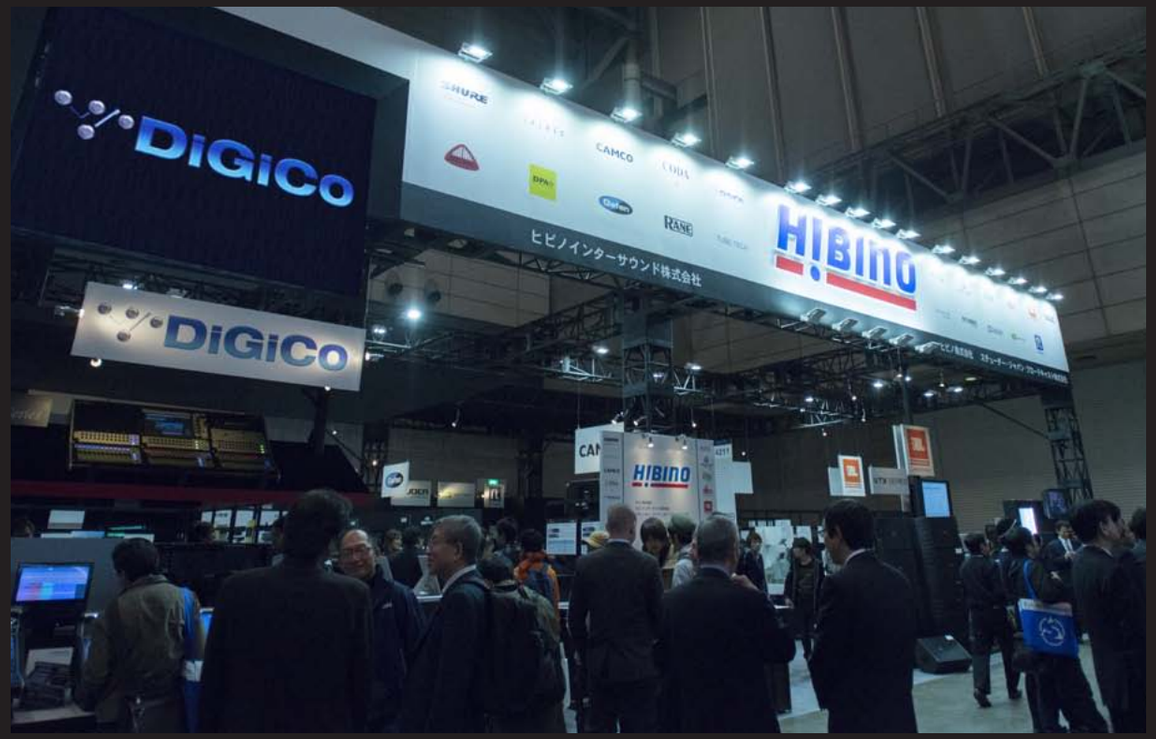
The Hibino Group showcased a variety of products, proving its all-round capabilities as a presenter of sound and visual

In the pro audio category, a joint exhibition was organized by three companies from the Hibino Group: Hibino Corporation, Hibino Intersound, and Studer Japan Broadcast Ltd.

The hibino pro audio sales Div. is the oldest business unit in Hibino Corporation. Founded in 1964, when Japan was in the midst of high economic growth, the company was quick to identify the needs of consumers arising from the lack of opportunities to enjoy live performances of foreign artists. Hibino started an audio equipment business for sound professionals to provide Japanese consumers with sound that is as close as possible to real. Since the start-up of the business, Hibino has had excellent track records in its industry, earning trust from professionals.

Hibino Intersound is an independent company that mainly imports and sells audio equipment. The company deals with a wide range of import brands including Shure microphones (USA), CALREC broadcast mixing consoles (UK), CAMCO power amplifiers (Germany), CODA AUDIO SR speakers (Germany), DiGiCo mixing consoles (UK), DIS digital conference systems (Denmark), DPA Microphones (Denmark), and Gefen visual peripherals (USA).

At this year's Inter BEE, the company showed off a variety of products, among which the digital mixing consoles of DiGiCo attracted particularly great attention.



The all-round superiority of the Hibino audio sales division as a presenter of sound and visual was reflected in its exhibition

■Tell us your theme and objectives for this exhibition.

Uchino: The exhibition of Hibino Intersound focused on the digital mixing consoles of DiGiCo, a UK-based manufacturer. We showcased its entire lineup from a new product such as the Rackmountable / Table Top Digital Console "SD11B" to a flagship model such as "SD7." We demonstrated that the SD series of DiGiCo meets a wide range of needs and that once you know how to operate a model of the series, you will have no difficulties in operating the other models since DiGiCo adopts the same operation method for all. We also introduced products of DPA Microphones, including its newly-launched "d:facto" and standard miniature microphones. Moreover, we provided the audience with an opportunity to experience the high performance of Gefen's visual peripherals by using many monitors.

Ms. Ako Uchino
Business Development
Sales Department
hibino Intersound corporation

Terada: The Hibino Corporation spotlighted new products, for we wanted to show the audience as many state-of-the-art devices as possible. Our exhibits included products with brand-new, innovative technologies: JBL Professional's VTX Series of the highest-grade line array speakers, M2 Master Reference Monitor featuring high-quality large-monitor performance in a compact design, and CWT128 loudspeaker with horizontal coverage across a full 160 degrees; Soundcraft's Si Expression digital mixer; and AMCRON's Dci Series of power amplifiers.

Hibino's audio stand drew 1.5 times as many visitors as it did at the previous show

■What reaction did you get from the audience?

Terada: We received good reactions from the audience. Though the exhibition as a whole saw a little increase in attendance, our audio stand drew 1.5 times as many visitors as it did last year. We received a number of questions partially because we showcased a variety of new products. I had an impression that this year's Inter BEE was even more successful than usual with extremely keen audience.

Mr. Takashi Terada
Marketing
hibino pro audio sales Div.
hibino corporation

Inter BEE is one of the largest trade fairs for pro audio products

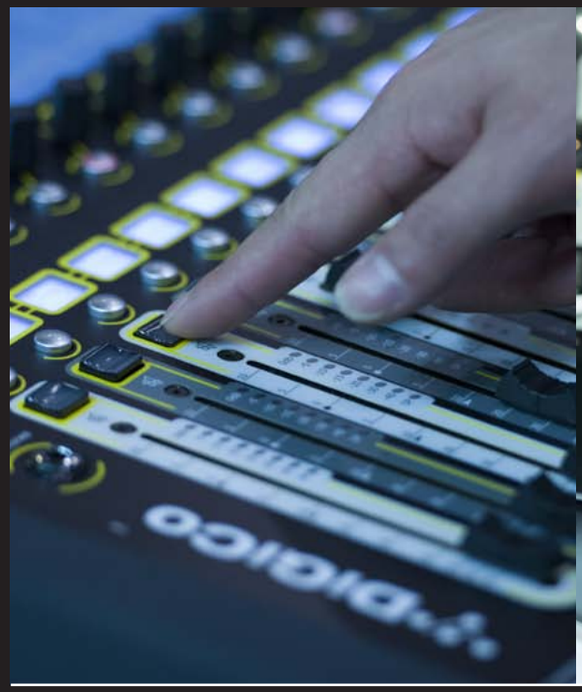
■How do you consider Inter BEE in your business?

Uchino: Japan's pro audio industry does not organize large-scale trade shows, so Inter BEE is regarded as one of the largest trade fairs for pro audio products. We consider this exhibition as a significant occasion to reach new customers as well as deepen our relations with existing customers. Every year, we put great energy into the show, running spacious booths. We also display our visual equipment including large monitors in another booth. This exhibition is a good opportunity for our company to show our all-round capabilities as a presenter of sound and visual.

We hope for more visitors

■Do you have any expectation for the next Inter BEE?

Terada: We hope that Inter BEE will further increase its name recognition to draw more attendance.



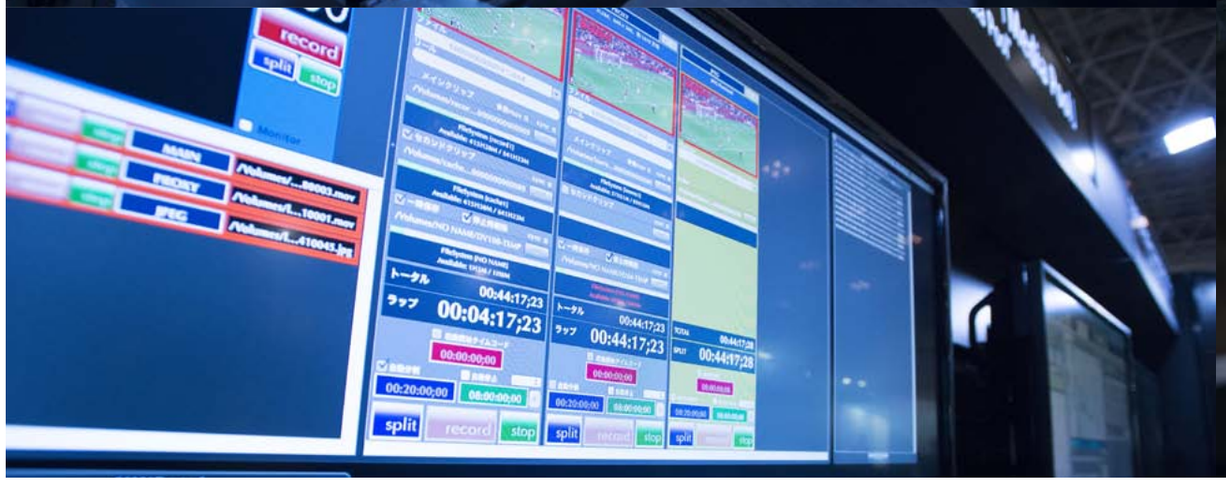
Mr. Sachio Nomaki, Executive Vice President of Hibino Corporation: The importance of sound will increase as video has higher quality

During this interview, we saw Mr. Sachio Nomaki, Executive Vice President of Hibino Corporation at the venue. He emphasized the importance of high quality sound in the age of high-definition video: "We showcased our products not only in this audio booth but also in our visual booth, including high-definition large LED systems. We also offered large LED vision at the entrance of the venue and called the audience's attention to it, demonstrating our ability as a leading rental company. When video has higher quality such as 4K and 8K, the importance of sound will also increase. I think that at this year's Inter BEE, we were even more successful than usual in demonstrating our all-round capabilities as a company that delivers total services with great visual and audio quality."

On show from Fujitsu, as part of its next-generation technology portfolio, video transmission solutions using the latest codec as well as the next-generation Fujitsu video transmission technology. Introducing a video transmission solution based on the latest top IP codec model 'IP-9610' and migration to H.265/HEVC, heralding the 4K/8K era of new products, made it a huge visitor draw. Plus, new items on show included showcasing of operational efficiency solutions utilizing new live video-switching software as well as various other solutions leveraging Fujitsu's video processing technology and forward-looking production support systems. Also introduced were operational efficiency solutions involving info camera/material transmission, info camera recording and transmission solutions, cloud-based transcoding services and demonstrations of the latest equipment and solutions utilizing next-generation production support systems such as 'MediaPool'. We asked Mr. Toshio Funabashi, Manager of the Business Innovation Division, Service Business Unit, Fujitsu, about the visitor response and the Inter BEE positioning.

Video transmission solutions building on the track record, toward next-generation 4K/8K broadcasting

Mr. Toshio Funabashi
Manager
Business Innovation Div.
Service Business Unit
Fujitsu Limited



Introducing the latest codec which leads to the 4K/8K era Introducing the latest codec which leads to the 4K/8K era Introducing the latest codec which leads to the 4K/8K era

■What is the theme of the exhibition target this time?

We focused on 'the introduction of the media platforms which Fujitsu works on for 4K/8K next-generation broadcasting file-based system' plus 'proposals for solutions for our customers to boost efficiency and effectiveness using IP codec devices increasingly used in broadcast companies'.

The 'IP-9610', as well as offering IP/ASI simultaneous and two-way transmission, has already been deployed in trials involving 4K live transmissions and has attracted considerable expectations as a next-generation codec.

Plus, as per the migration to H.265/HEVC, Fujitsu initiatives centering on H.265 products have been introduced, e.g. the development of a real-time encoder and support for next-generation broadcasting with 8K extendibility in mind.

'MediaPool' is a content production business (archives from recording), which enables the life cycle of image material to be managed and proposals given to customers wishing to determine operational efficiency. The advantage here is the seamless archival from recordings which is performed unobtrusively.

Multipoint camera/ material transmission operational efficiency solution which enhanced operability thanks to flexibly restructured codec

At the multipoint camera live video corner, the new product was introduced.

It is capable of easily switching live video connection on computers and handling up to 18 multi-screen displays.

Mainly targeting broadcaster customers, tailored solutions are provided to individual customers with hands-on experience with the latest solutions for broadcasting equipment to enhance their understanding.

Recorded footage promptly retrieved, for immediate on-air use

Introducing info camera recording and transmission solutions, via 'VideoCasterPro' video preview 24-hour video recording and live video of all sites.

In the event of earthquakes and other disasters, simple operation facilitates the immediate dispatch of recorded video, and the potential for immediate on-air use is clearly explained.

New technology on show, next-generation solutions attracting attention

■How is the visitor response?

I get the impression that visitors numbers were up on last year. In fact, on the first day, I felt we had more customers coming to the booth. In conjunction with the needs of our customers, we tailored solution proposals for the exhibition. I get the impression there are greater numbers interested in specific themes. There is a particular focus on next-generation video solutions, particularly 4K. Our company is happy with the response this time.

Held once a year, the largest professional broadcasting event of its kind Proposing specific business trends for 2014

■How is the positioning for Inter BEE?

Although Fujitsu started in IT and the company is now engaged in many different business fields, the positioning takes the largest scale broadcasting perspective into consideration and the fact that the event is the only professional broadcast industry event in Japan. It is really a "go-to" exhibition for all those involved in the broadcasting business, and our company sees it as a venue to announce solutions for its latest broadcast equipment.

We envisage a schedule for (4K/8K) broadcasts (test broadcast in 2014, 2016 Rio Olympics relay) 4K broadcasting UHD, and 8K broadcasts (2016 Rio Olympics and practical application test broadcast, Tokyo Olympics relay in 2020).

The 4K/8K high-resolution images will attract more and more people next year and beyond. We look forward to present proposals and exhibitions meeting customers' expectations.


Makuhari Messe
Hall 8
Hall 7
Hall 6
Hall 5
Hall 4
Hall 3
Hall 2
Hall 1
Inter BEE
International Broadcast Equipment Exhibition

映像･放送関連機材部門


Hall 8
Hall 7
8524 TOSHIBA
8322 Canon/ Canon Marketing Japan
8136 IKEGAMI TSUSHINKI
7316 Grass Valley
7106 Sony/Sony Business Solutions
Professional Lighting Equipment
8523 TOSHIBA LIGHTING & TECHNOLOGY/ Tohshiba Lighting and Technology Engineering
8519 Aurora Lite Bank
8518
JAPANESE SOCIETY of LIGHTING DIRECTORS
8513 Agai Trading
8514 JAPAN THEATER SERVICE
8512 Visio Light
8515 KOTO ELECTRIC
8321 nac Image Technology/ Carl Zeiss
8135 HOEI SANGYO/ INTER-TEC
7315 MITSUBISHI ELECTRIC
7314 Harmonic Japan
SanDisk
PACO ELECTRONICS INDUSTRY/ Fuji Light Commercial Trading
8410 D-Storm
8409 Ask
8319 Media Garden
8320 Tektronix
8317 Telestream
8224 8225 8222 TVLOGIC PFU
8220 8226 IDEAL SYSTEMS
CREATELED
8125 ATOMOS
7412 Sakura Eiki
7411 7413 PROSPER ELECTRON NEP
7313 CIRCLE
7312 MEIKO TECH
7204 Cosmic Engineering
7105 Blackmagic Design
Hall 6
8511 GoPro NIPPON
8408 AJA Video Systems
8315 GB Labs LLP
8314 8316 Flashback Japan KUBOTEK
NobbyTech
8215 8217 ONTEC CO
8219 WASE
8117 8119 Crescent MASTOR TECHNOLOGY
8124 TOO
7409 MEDIA GLOBAL LINKS
7408 7410
Retro Enterprises
Sanwa Cine Equipment Rental
7308 EMC Japan
7203 IDK
7104 Vitec Videocom
8503 NIXUS Hokkaido Nikko Telecommunications
8310 NETMARKS
8404 8405 JAPAN MATERIAL/ Matrox Video Research
8403 8406 RED DIGITAL JAPAN Real Networks
8311 DX ANTENNA
8312 IPDC Forum
8309
3D CONSORTIUM
OPEN INNOVATION LAB
8211 8212 Teradek/ CamCast7 Plat-Ease
8209 MULTISCREEN BROADCASTING STUDY GROUP
V-Low Digital Community Radio Group
8109 Monfrotto Distribution
STAR COMMUNICATIONS
7406 TOTSU INTERNATIONAL
7405 7407
BREXEL
Kowa Optical Products
7306 Rohde & Schwarz Japan
7305 7307 FILMLIGHT
7202 HEIWA SEIKI KOGYO
7103 MITOMO/ ARDIS TECHNOLOGIES/ CAMPING WORKS/BROAD-DESIGN
Hall 6
8502 Adobe Systems/Intel
Cross Media
Cross Media Theater
8402 Explorer
8401 SISVEL JAPAN
8302 8303
8301
CTCSP
8305
8306
8307
Satellite Communications Network
8308 PIXTA
Frontiers
8204 8205 Gracenote IT Access
8201 8206
DRMinside
ORCA Production
8101 Production Promote area
MILERUNTECH
7403 M&I Network
7401 7404 MEDIACAST
7301 Contents Technology Plaza
7201 TechnoHouse
7102 Shibasoku/ASACA
7101 KYOSHIN COMMUNICATIONS
7001 Keisoku Giken
8002 MEDIAEDGE/FS-NET
8001 INTERNET
8003 JAPAN MATERIAL
ELV
1F

Exhibit Map

映像･放送関連機材部門

プロオーディオ部門

Hall 6

6506 FOR-A

6122 NEC

5418 Panasonic/ Panasonic System Networks

6505 FUJIFILM RECORDING MEDIA PRODUCTS DIV. OPTICAL DEVICE BUSINESS DIV. ELECTRONIC IMAGING PRODUCTS DIV.

6316 PHOTRON

6121 Autodesk | NGC

5617 Hitachi Kokusai Electric

5417 LEADER ELECTRONICS

SUMITOMO ELECTRIC INDUSTRIES

6407 IMAGICA/ IMAGICA DIGITAL SCAPE

6406 SETTSU METAL INDUSTRIAL

6313 RATEC | 6314 | 6312 | 6311 Kowa Optical Products | ATEN JAPAN | 6315 Kamoi Kakoshi

6215 Cybernetech | 6216 Laguna Hills | 6214 NHK ITEC | 6217 Sigma ITS

Alpermann+Velte EE

6112 IABM | 6114 | 6115 Dalet | 6111 IBC | 6116 ATEME | 6119 NAB | 6117 KOBA | 6118 Lansec

AMAGI MEDIA LABS PRIVATE LIMITED

5614 LIGHT UP/ EIZO | 5613 | 5615 FUYOH VIDEO INDUSTRY | 5616 BIOS | Link

5518 Extron Electronics | 5517 AIM ELECTRONICS | 5519 P-tec

5416 Lambda Systems

7 Hall

6604 Shoshin

6603 YOSHIMI CAMERA

6504 Shotoku/ RENT ACT SHOTOKU

SUGAWA VIDEO ENGINEERING

6405 Kenko Professional Imaging/ Kenko Tokina/ SLIK

6309 | 6310 AD TECHNO | 6308 Miharu Communications

Video Plus

6209 | 6210 OTICOM | 6208 Cerevo | 6213 Tsubata Engineering | 6207 RF DESIGN

6109 Soliton Systems/ Tokyo Broadcasting System Television

6108 OPHIT | 6110 Rimage Japan

5611 Sunmulon | 5612 Teleforce | 5610 CHIEF

5512 JBS Cross | 5511 FUJIKOWA INDUSTRY | 5516 HIROTECH

5408 SWISH JAPAN/ NKL/ Grip Factory Munich | VIDEO Service

6503 IMAGENICS/ VIDEOTRON

NKK SWITCHES -NIHON KAIHEIKI

6404 AT Communications

6305 Seika Digital Image | 6306 | ELECTORI | 6307

6205 UNITEX | 6204 | 6206

6106 | 6107 Visual Graphics | 6105 NETWORK ELECTRONICS JAPAN

5608 GIN-ICHI | 5607 HYPER TOOLS | 5609 DUPLEX

5507 EIDEN | 5508 IBEX Technology | 5505 HITACHI-LG DATA STORAGE

5406 ITOCHU Cable Systems | 5405 | 5407 IshikawaTRUNK

Born Digital / WORKS CORPORATION

Takahashi Construction

I.S.X. /ViiTA Technology

DEMPA PUBLICATIONS

NTT Advanced Technology

6602 Z3Japan

Ittiam Systems

6601 AFFECT LOGIC/ SDPC Visual System

6502 SANSHIN ELECTRONICS

6605 Publishing Corner

6501 NIPPON VIDEO SYSTEM

IDX

Komine Musen Denki

6402 A&A | 6403 DENNO | 6401 YUASA

6302 Rovi | 6303 EMIC | 6304 | 6301 TANAKA DENKI

Japan Communication Equipment

6202 MOUBIC | 6201 | 6203 ANRITSU | Nippon Antenna

6102 | 6103 | 6104 METAL TOYS | 6101 NICCABI/ Plannet

SENKO SANGYO

5602 | 5603 FUJIMIC | 5601 HIRAKAWA HEWTECH

MUSASHI/MICROCOM/EXLIGHT

5503 | 5504 ERG VENTURES | 5502 | 5501 Fuchu Giken | Traffic Sim

5402 | 5403 TAKIGEN | 5404 i-COMMERCE | 5401 Canare Electric

6001 ALVIX

Broadcast Asia

5005 CABSAT | 5004

5003 | 5002 SET

Broadcast India

Hall 5

5317 ASTRODESIGN

4617 Avid

5316 Quantel

5124 Fujitsu

4616 Roland

Hong Kong Trade Development Council

OKADA International

5310 | 5311 | 5312 | VILLAGE Island/ INTOPIX ISLAND | 5313 | 5314 | 5315 CCBN

5213 SEMTECH JAPAN | 5212 | Yokogawa Digital Computer | 5215 K-WILL

Hitachi Systems/ Hitachi Solutions

5121 | 5122 Gansui | 5120 FIRST ENGINEERING/ hibino

4611 | 4615 LIVEGEAR Graphica

5117 MICROBOARDS TECHNOLOGY

5118 Nippon Steel & Sumikin Welding

TELE-satellite Magazine

RADIO FREQUENCY SYSTEMS

5308 DAIKIN INDUSTRIES | 5307 | 5309 InnoQbs | 5306 Forest | Dyne Systems

5210 | 5211 TOMOCA Electronics/ JR Sound | 5209 RIP-TIE | 5208 ARMOR

Matsuura Kikai Seisakusho

5119 Font works

5115 MetaData

5116 Infinitegra

5114 THIRDWAVE

5113 Sun Instruments

4610 MATSUDA TRADING

5305 NTT Group

5206 LSI JAPAN | 5207 TOTSU CREATIVE VISION | 5204 Hokuwa

5109 HODAKA DENSHI | 5111 TAC SYSTEM | 5107 DHT | 5112 CORNES Technologies

Penn Fabrication Japan

ETANI ELECTRONICS

4606 TAC SYSTEM | 4607 Neutrik | 4608 High Resolution

4508 Fraunhofer IIS | 4509 | 4510 | 4506 BOSE

5302 Carina System/ Capella Systems | 5301 Namoto Trading | 5304

TECHNONET

5201 | 5202 | 5203 Japan Radio

LYNXTECHNIK JAPAN

5103 Enroute | 5105 EVI AUDIO JAPAN | 5106 | 5101 Faith

TANIZAWA SEISAKUSHO

Broadcast Supply International

5001 Strawberry Media Arts/CINEMAX

4602 EVI AUDIO JAPAN | 4603 TRITECH | 4604 MIURA | 4605 TOA | 4601 COSMO SOUND

4503 MIT | 4504 Timeload/ ACOUSTIC FIELD | 4502 SHIZUKA | 4505 Techno House | 4501 UETAX

SOUTHERN ACOUSTICS

4006

4005 CANAL WORKS

4004 Association of 700MHz Frequency Promotion

4003 DIGITAL LABORATORY

4001 Miyaji Pro Audio

4002 Miyaji Import Division

4011 TESORI

Hall 4

4521 Sunmuse

4310 YAMAHA MUSIC JAPAN

4211 hibino Group/ hibino/ hibino intersound/ Studer Japan Broadcast

4520 S.C.ALLIANCE/ ACOUSTIC TECHNICAL LABORATORY

4309 OTARITEC

4210 Shure Japan Limited

4209 Bestec Audio

4518 Media Integration | 4517 HANAOKA MUSEN DENKI | 4519 MORSON JAPAN

4414 Solid State Logic Japan | 4413 | 4415 AZDEN | 4416

ANTELOPE AUDIO

4308 Sennheiser Japan

NITTOBO ACOUSTIC ENGINEERING

4208 TEAC/ Line 6 Japan

4125 | 4121 Fourbit | Loudness Workshop

Techno System/ RockU Korea/Wellcraft

4513 MI Seven JAPAN/ SYNTHAX JAPAN/ ResoNetz | 4514 DSP JAPAN | 4516 SANKEN MICROPHONE

4411 D&M Holdings | 4410 ASNICS | 4412 Sigma Systems Engineering | 4409

CRYPTON FUTURE MEDIA

4307 TAMURA

4206 ONKYO TOKKI | 4205 MEDIA PLUS | 4207 NTI Japan

4116 ELECTORI | 4010 | 4120 MTS& PLANNING

4406 audiotechnica | 4405 PULSE | 4407 | 4408 Moridaira Musical Inst

STAGE SOUND ASSOCIATION of JAPAN

4305 Yamaki Electric | 4306 Audio Brains | 4304 ZEAL

4203 Dream | 4204 Eastern Sound Factory | 4202 Comodo Mattina

4110 Publishing Corner

Publishing Corner

4302 TC GROUP JAPAN | 4301 | 4303 Suyama Dental Laboratory

NIHON ELECTRO HARMONIX

4402 Continental Far East | 4401 STUDIO EQUIPMENT | 4403 GROOVE | 4404 FOSTEX

4201 Tech Trust Japan | ICONIC | Crescent

AMPHENOL AUDIO

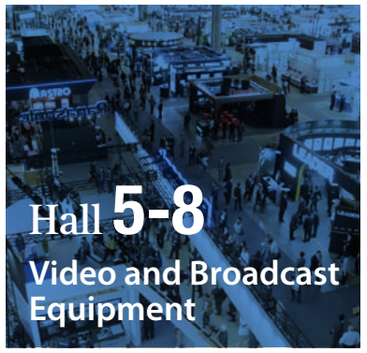
4104 | 4102 | 4101 IMAI & COMPANY

APPLAUSE SYSTEMS/ CatchMe

ELV

1F

4504 ACOUSTIC FIELD INC.
4520 ACOUSTIC TECHNICAL LABORATORY INC.
4104 AMPHENOL AUDIO
4415 ANTELOPE AUDIO
4102 APPLAUSE SYSTEMS Co.
4410 ASNICS CO., LTD.
4004 Association of 700MHz Frequency Promotion
4306 Audio Brains co., ltd
4406 audio-technica CO
4413 AZDEN CORPORATION
4209 Bestec Audio Inc.
4506 BOSE KABUSHIKI KAISHA
4005 CANAL WORKS CORPORATION
4102 Catch Me co., ltd
4202 ComodoMattina, Inc.
4402 Continental Far East Inc.
4601 COSMO SOUND Co., Ltd.
4201 Crescent Co., Ltd.
4409 CRYPTON FUTURE MEDIA, INC
4411 D&M Holdings Inc.
4003 Digital Laboratory Inc.
4203 Dream Inc.
4514 DSP Japan Ltd.
4204 Eastern Sound Factory Co., LTD.
4116 ELECTORI CO., LTD.
4509 ETANI ELECTRONICS CO., LTD.
4602 EVI AUDIO JAPAN, LTD.
4404 FOSTEX COMPANY
4121 Fourbit Corporation
4508 Fraunhofer IIS
4615 Graphica Inc.
4403 GROOVE CO., LTD.
4517 HANAOKA MUSEN DENKI CO., LTD.
4211 Hibino corporation
4211 Hibino intersound corporation
4608 High Resolution Co., Ltd.
4201 ICONIC
4101 IMAI & COMPANY, LTD.
4011 J.TESORI Co.,Ltd.
4208 Line 6 Japan K. K.
4611 LIVEGEAR Inc.
4125 Loudness Workshop
4610 MATSUDA TRADING CO., LTD.
4518 Media Integration, Inc.
4205 MEDIA PLUS CO., LTD
4513 MI Seven Japan, Inc.
4503 MIT INC.
4604 MIURA CORPORATION
4002 Miyaji Import Division
4001 Miyaji Pro Audio
4408 Moridaira Musical Inst.Co.,Ltd.
4519 MORSON JAPAN CO., LTD.
4120 MTS&PLANNING Co., Ltd.
4607 Neutrik Limited
4301 NIHON ELECTRO HARMONIX K.K.
4416 NITTOBO ACOUSTIC ENGINEERING CO., LTD
4207 NTI Japan Limited
4206 ONKYO TOKKI LTD.
4309 OTARITEC Corporation
4510 Penn Fabrication Japan INC.
4405 PULSE. Co., Ltd.
4513 ResoNetz LLC
4010 RockU Korea
4616 Roland Corporation
4520 S.C.ALLIANCE INC.
4516 SANKEN MICROPHONE CO., LTD.
4308 Sennheiser Japan K.K.
4502 SHIZUKA Inc.
4210 Shure Japan Limited
4412 Sigma Systems Engineering Co., Ltd.
4414 Solid State Logic Japan K.K.
4006 SOUTHERN ACOUSTICS Co.,Ltd.
4407 STAGE SOUND ASSOCIATION of JAPAN
4211 Studer Japan Broadcast Ltd.
4401 STUDIO EQUIPMENT CORPORATION
4521 SUNMUSE, Inc.
4303 Suyama Dental Laboratory Co., Ltd.
4513 SYNTHAX JAPAN INC.
4606 TAC SYSTEM, INC.
4307 TAMURA CORPORATION
4302 TC GROUP JAPAN, Inc.
4208 TEAC CORPORATION
4201 Tech Trust Japan Co., LTD.
4505 TechnoHouse Inc.
4010 TechnoSystem
4504 Timelord ltd.
4605 TOA Corporation
4603 TRITECH INCORPORATED
4501 UETAX Corporation
4010 Wellcraft Co.Ltd
4310 YAMAHA MUSIC JAPAN CO.,LTD.
4305 Yamaki Electric Corporation
4304 ZEAL Inc.



6402 A&A Co., Ltd.
6310 AD TECHNO Inc.
6601 AFFECTLOGIC INC.
5517 AIM ELECTRONICS CO, LTD
2639 AJA Video Systems
6114 Alpermann+Velte EE GmbH
6001 ALVIX Corporation
5615 AMAGI MEDIA LABS PRIVATE LIMITED
6201 ANRITSU CORPORATION
7103 ARDIS TECHNOLOGIES
5208 ARMOR CORPORATION
7102 ASACA CORPORATION
8409 ASK CORPORATION
5317 ASTRODESIGN, Inc.
6404 AT Communications K.K.
6116 ATEME
6314 ATEN JAPAN CO., LTD.
8125 Atomos Co., Ltd.
6121 Autodesk Inc
4617 Avid
5616 BIOS CORPORATION
7105 Blackmagic Design
6307 Born Digital, Inc.
7405 BREXEL, Inc.
5004 Broadcast Asia
5003 Broadcast India
5304 Broadcast Supply International
7103 BROAD-DESIGN Co.Ltd
5005 CABSAT
7103 CAMPING WORKS Co.,Ltd
5401 Canare Electric Co., Ltd.
8322 Canon Inc. / Canon Marketing Japan Inc.
5302 Capella Systems, LLC
5302 Carina System Co, Ltd.
8321 Carl Zeiss Co.,Ltd.
5315 CCBN
6208 Cerevo Inc.
5610 CHIEF
5001 CINEMAX CORPORATION
7313 CIRCLE Co., Ltd.
5112 CORNES Technologies Ltd.
7204 Cosmic Engineering Inc.
8220 CREATELED
8117 Crescent. Inc
6215 Cybernetech Corporation
5308 Daikin Industries, Ltd
6115 DALET DIGITAL MEDIA SYSTEMS
5405 DEMPA PUBLICATIONS, INC.
6403 DENNO Co.,Ltd.
5107 DHT CORPORATION
8410 D-Storm, Inc.
5609 DUPLEX CO., LTD.
5507 EIDEN Co., LTD
5614 EIZO Corporation
6306 ELECTORI CO., LTD.
7308 EMC Japan K.K.
6303 EMIC CO.,LTD
5103 Enroute Co.,Ltd.
5503 ERG VENTURES CO., Ltd.
5105 EVI AUDIO JAPAN, LTD.
5603 EXLIGHT LTD
5518 Extron Electronics, Japan
5101 Faith Co., Ltd.
7307 FilmLight KK
5120 FIRST ENGINEERING CO., LTD.
8314 Flashback Japan Co.,Ltd.
5119 Fontworks Inc.
6506 FOR-A COMPANY LIMITED
5306 Forest Dyne Systems Corporation
5501 Fuchu Giken Inc.
7313 Fuji Light Commercial Trading Co.,Ltd
6505 FUJIFILM Corporation
6505 FUJIFILM Corporation PHOTO IMAGING PRODUCTS DIV.
6505 FUJIFILM Corporation OPTICAL DEVICE & ELECTRONIC IMAGING DIV.
6505 FUJIFILM Corporation RECORDING MEDIA PRODUCTS DIV.
5511 FUJIKOWA INDUSTRY CO., LTD.
5602 FUJIMIC, INC.
5124 Fujitsu Limited
5613 FUYOH VIDEO INDUSTRY CO., LTD.
5122 Gansui corporation
8315 GB Labs LLP
5608 GIN-ICHI Corp.
8511 GoPro NIPPON
7316 Grass Valley K.K.
7314 Harmonic Japan G.K.
7202 HEIWA SEIKI KOGYO CO., LTD.
5120 Hibino corporation
5601 HIRAKAWA HEWTECH CORP.
5516 HIROTECH, INC
5617 Hitachi Kokusai Electric Inc.
5121 Hitachi Solutions, Ltd
5121 Hitachi Systems, Ltd.
5505 HITACHI-LG DATA STORAGE Co.Ltd.
5109 HODAKA DENSHI Co.,Ltd.
8135 HOEI SANGYO CO., LTD.
5204 Hokuwa Co., Ltd.
6212 Hong Kong Trade Development Council
5607 HYPERTOOLS CO., LTD.
6206 I.S.X. CORPORATION
6112 IABM
6111 IBC
5508 IBEX Technology Co., Ltd.
5404 i-COMMERCE Co., LTD
8226 IDEAL SYSTEMS
7203 IDK Corporation
6501 IDX Company, Ltd.
8136 IKEGAMI TSUSHINKI CO., LTD.
6503 IMAGENICS
6407 IMAGICA Corp.
6407 IMAGICA DIGITAL SCAPE CO.,LTD.
5116 Infinitegra, Inc.
5309 InnoQos Corporation
8135 INTER-TEC Co., Ltd.
5310 INTOPIX ISLAND K.K.
8312 IPDC Forum
5407 IshikawaTRUNK.Co.,Ltd.
5406 ITOCHU Cable Systems Corporation
6602 Ittiam Systems Ltd.
6304 Japan Communication Equipment Co., Ltd.
5203 Japan Radio Co.,Ltd.
5512 JBS CROSS Inc.
5211 JR Sound Co., LTD.
6315 Kamoi Kakoshi Co., Ltd.
7001 Keisoku Giken Co., Ltd.
6405 Kenko Professional Imaging Co., Ltd.
6405 Kenko Tokina Co.,Ltd.
6117 KOBA
6103 Komine Musen Denki Co.,Ltd.
6311 Kowa Optical Products Co.,Ltd
7407 Kowa Optical Products Co.,Ltd
8316 KUBOTEK Corporation
5215 K-WILL Corporation
7101 KYOSHIN COMMUNICATIONS Co., Ltd.
6216 Laguna Hills, Inc.
5416 Lambda Systems Inc.
6118 Lancer Link Co., Ltd.
5417 LEADER ELECTRONICS CORP.
5614 LIGHT UP CO.,Ltd.
5206 LSI JAPAN CO., LTD.
5202 LYNXTECHNIK JAPAN
7403 M&I Network Inc.
8109 Manfrotto Distribution K.K.
8119 MASTOR TECHNOLOGY LIMITED
4610 MATSUDA TRADING CO., LTD.
5307 Matsuura Kikai Seisakusho Co., Ltd
8319 Media Garden Inc.
7409 MEDIA GLOBAL LINKS CO., LTD.
7404 MEDIACAST CO., LTD.
7312 MEIKO TECH CO., LTD.
5115 MetaData
6104 METAL TOYS
5117 MICROBOARDS TECHNOLOGY INC.
5603 MICROCOM LTD.
6308 Miharu Communications Inc.
7401 MILERUNTECH. CO. LTD.
7103 MITOMO CO., LTD.
7315 Mitsubishi Electric Corporation
6202 MOUBIC INC.
5603 MUSASHI CO., LTD.
6119 NAB
8321 Nac Image Technology Inc.
5301 Namoto Trading Co., Ltd.
6122 NEC Corporation
7413 NEP Inc.
6105 Network Electronics Japan Co.,
6121 NGC CORPORATION
6214 NHK Integrated Technology Inc
6102 NICCABI CO., Ltd.
6203 Nippon Antenna., Ltd.
5118 Nippon Steel & Sumikin Welding Co., Ltd.
6501 NIPPON VIDEO SYSTEM CO., LTD
8503 NIXUS Hokkaido Nikko Telecommunications, Co., Ltd.
6106 NKK SWITCHES -NIHON KAIHEIKI IND. CO., LTD.
5408 NKL INC./Grip Factory Munich
8215 NobbyTech. Ltd.
5403 NTT Advanced Technology Corporation
5305 NTT Advanced Technology Corporation
5305 NTT Electronics
5312 OKADA International Inc.
8217 ONTEC CO., LTD.
6108 OPHIT CO., LTD.
6210 OTICOM CORPORATION
7313 PACO ELECTRONICS INDUSTRY INC.
5418 Panasonic Corporation
5418 Panasonic System Networks Co.Ltd.
8225 PFU LIMITED
6316 PHOTRON LIMITED
6102 Plannet., LTD.
7411 PROSPER ELECTRON Inc.
5519 P-tec Co., Ltd
5316 Quantel K.K.
5210 RADIO FREQUENCY SYSTEMS
6313 RATEC
6504 RENT ACT SHOTOKU CORP.
7408 Retro Enterprises Co.,Ltd.
6207 RF DESIGN Co.,ltd.
6110 Rimage Japan Co., Ltd.
5209 RIP-TIE INC.
7306 Rohde & Schwarz Japan K.K.
4616 Roland Corporation
6302 Rovi Corporation
7412 Sakura Eiki Co., Ltd.
8224 SanDisk Limited
6502 SANSHIN ELECTRONICS CO., LTD.
7410 Sanwa Cine Equipment Rental Co., Ltd.
6601 SDPC Visual System
6305 Seika Digital Image Corporation
5213 SEMTECH JAPAN
6101 SENKO SANGYO Co.,LTD
5002 SET
6406 SETTSU METAL INDUSTRIAL CO., LTD.
7102 Shibasoku Co., Ltd.
6604 Shoshin Corporation
6504 Shotoku Corp.
6217 Sigma ITS Co., Ltd.
6405 SLIK CORPORATION
6109 Soliton Systems K.K.
7106 Sony Corporation/Sony Business Solutions Corporation
7305 STAR COMMUNICATIONS K.K.
5001 Strawberry Media Arts Co., Ltd.
6309 SUGAWA VIDEO ENGINEERING CO., LTD.
6312 Sumitomo Electric Industries, Ltd.
5113 Sun Instruments, Inc.
5611 Sunmulon Co., Ltd.
5408 SWISH JAPAN inc.
5111 TAC SYSTEM, INC.
6204 Takahashi Construction Co., Ltd.
5402 TAKIGEN MFG. CO., LTD.
6301 TANAKA DENKI
5106 TANIZAWA SEISAKUSHO, LTD.
7201 TechnoHouse Inc.
5201 TECHNONET CO., LTD.
8320 Tektronix
5612 Teleforce Co.. Ltd
5314 TELE-satellite Magazine
8317 TELESTREAM
5114 THIRDWAVE TECHNOLOGIES Co., Ltd.
6109 Tokyo Broadcasting System Television, Inc.
5211 TOMOCA Electronics Co., LTD.
8124 Too Corporation
8524 Toshiba Corporation
5207 TOTSU CREATIVE VISION CO., LTD
7406 TOTSU INTERNATIONAL CO., LTD.
5504 Traffic Sim Co., Ltd.
6213 Tsubata Engineering Co.., Ltd.
8222 TVLOGIC
6205 UNITEX Corporation
5408 VIDEO Service
6209 Video Plus
6503 Videotron Corporation
6206 ViiTA Technology Co., Ltd.
5310 VILLAGE Island Co., Ltd.
6107 Visual Graphics Inc.
7104 Vitec Videocom
8219 WASEI CO., LTD.
6307 WORKS CORPORATION INC.
5212 Yokogawa Digital Computer Corporation
6603 YOSHIMI CAMERA CO., LTD.
6401 YUASA CO., LTD.
6602 Z3Japan Co.,Ltd.

8513 Agai Trading Corporation
8519 Aurora Lite Bank Co.
8514 JAPAN THEATER SERVICE Co., LTD.
8518 JAPANESE SOCIETY of LIGHTING DIRECTORS
8515 KOTO ELECTRIC CO., LTD.
8523 Toshiba Lighting & Technology Corporation
8523 Toshiba Lighting and Technology Engineering Corporation
8512 Visio Light Inc,

8309 3D CONSORTIUM
8502 Adobe Systems Co., Ltd.
8301 CTCSP Corporation
8305 DRMinside
8311 DX ANTENNA CO., LTD.
8402 Explorer Inc.
8307 Frontiers Co., Ltd.
8002 FS-NET
8204 Gracenote K.K.
8502 Intel K.K.
8001 INTERNET Co.,Ltd.
9312 IPDC Forum
8205 IT Access Co., Ltd.
8003 JAPAN MATERIAL CO., LTD.
8404 JAPAN MATERIAL CO., LTD./MATROX
8404 Matrox Electronics Systems Ltd.
8002 MEDIAEDGE Corporation
8209 MULTISCREEN BROADCASTING STUDY GROUP
8310 NETMARKS INC.
8303 OPEN INNOVATION LAB.
8306 ORCA Production, Inc.
8308 PIXTA Inc.
8212 Plat-Ease Corporation
8406 RealNetworks, Inc.
8403 RED DIGITAL JAPAN
8302 Satellite Communications Network
8401 SISVEL JAPAN K.K.
8211 Teradek CCC/CamCast7 Inc.
8405 Video Research Ltd.
8201 V-Low Digital Community Radio Group

8101 Production Promote Area

Colossus Inc.
Double Negative
Genkosha Publishing Co.,Ltd.
Ludens Co.,Ltd.
MARZA ANIMATION PLANET INC.
NHK Media Technology Inc.
NTT LEARNING SYSTEMS CORPORATION
TYO Technical Ranch Inc.
Works Corporation Inc.

7301 Contents Technology Plaza

EVC Inc.
Internet Television Inc.
KELC Electronics System Co.,LTD
Universal Computer Laboratory Co.,Ltd.

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 p ress 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

Shure Japan Limited — **2013.11.13UP**

To Show Wireless Mics for New RFs, Shotgun Mic for DSLR Recording

Magazine

LIGHT UP CO.,Ltd. — **2013.11.13UP**

Exhibiting Redrock Micro's wireless focus system and One Man Crew, a camera motion device that enables you to take videos that give the impression of a moving background by keeping the subject stationary and in focus

Magazine

Film Light — **2013.10.31UP**

New Color Grading Technology for 4K TV Programming, FilmLight Japan To Approach 4K Market Here

Magazine

Sun Instruments, Inc. — **2013.11.6UP**

Exhibiting optical display port extenders, optical HDMI extenders, and optical 3G SDI extenders capable of extending up to 30 km, all from Korean company Opticis

Magazine

VITEC Videocom — **2013.11.13UP**

Sachtler's new product: showcasing the System ACE L GS CF, achieving a 500 g weight reduction through the use of carbon fiber material

Magazine

TEAC CORPORATION — **2013.11.13UP**

TEAC demos TASCAM-brand products and German beyerdynamic-brand mics, digital wireless system offering single-unit support for post-transition radio mic frequencies

Magazine

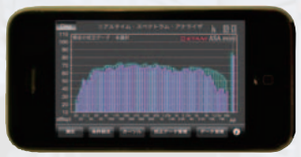
IMAGICA Corp. — **2013.11.8UP**

First-time Inter BEE exhibitor Imagica will showcase services on the basis of efforts ranging from 4K workflows to video asset utilization, plus screening of 4K music video by Def Tech

Magazine

ETANI ELECTRONICS CO., LTD. — **2013.11.9UP**

ETANI Electronics will present a practical system that can make a contribution to good "sound creation" by demonstrating how to improve a sound field with its acoustic instrument, the ASA-10 Mk II.



Magazine

EIZO Corporation — **2013.11.13UP**

Exhibiting monitor with color calibration function — on sale November 22 — also showing a reference model of its image enlarging software for focus confirmation

Magazine

Miharu Communications Inc. — **2013.11.13UP**

Showcasing H.264 encoder reference device for linear IP broadcasting

Magazine

IDK Corporation — **2013.11.13UP**

HDCP compatible digital point marker and DVI signal compatible matrix switcher with 32x32 channel on display

Magazine

TechnoHouse Inc. — **2013.11.13UP**

Technohouse presents the "ODYSSEY 7Q" equipped with organic EL display and capability to record 4K RAW data onto an SSD

Magazine

M&I Network Inc. — **2013.11.13UP**

Exhibiting VP-633/VP-634 pocket-sized SDI repeaters—Power supply function also provided

Magazine

LEADER ELECTRONICS CORP. — **2013.11.13UP**

Make the 'LV5490' 4K waveform monitor the centerpiece of their exhibit

Online Magazine Headline

Magazine

Canon Inc. / Canon Marketing Japan Inc. **2013.11.13UP**

Presenting a 30-inch 4K LCD display and demonstrates 4K products and a wide range of HD solutions, building on its track record of achievements

Magazine

HOEI SANGYO CO., LTD. **2013.11.13UP**

Displaying a KVM system from German company IHSE, demonstrating impressive response speed, and mouse horizontal-scrolling capability

Magazine

Media Integration, Inc. **2013.11.14UP**

Showcasing DiGi Grid, a plug-in DSP network base and audio interface

Magazine

Soliton Systems K.K. **2013.11.14UP**

Exhibiting HD live video transmission solution 'Smart-telecaster HD' and demonstrate new simultaneous file recording function

Magazine

Keisoku Giken Co., Ltd. **2013.11.13UP**

The FE ultra-resolution unit "FE-B1" allows 4K video from an F55 to be experienced in 8K

Magazine

TAMURA CORPORATION **2013.11.13UP**

Showcasing its digital audio mixer and new digital wireless products

Magazine

FUJIFILM PHOTO IMAGING PRODUCTS DIV. **2013.11.14UP**

Presenting comparative video showing the effect of the IS-100 image-processing device, used in making the movie 'The Kiyosu Conference'

Magazine

IDX Company, Ltd. **2013.11.14UP**

Demonstrating CW-3 wireless HD video transmission system with 50-meter transmission range and latency under two milliseconds

Magazine

HITACHI LG DATA STORAGE Co. Ltd. **2013.11.14UP**

Offering storage of high-capacity data with optical discs

Magazine

MEDIACAST CO., LTD. **2013.11.14UP**

A demo offering a range of suggestions for hybridcasting and tools for hybridcast content creation

Magazine

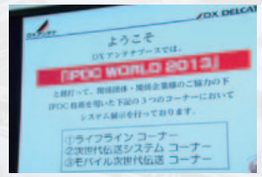
Carina System Co, Ltd. **2013.11.14UP**

Exhibition demo of ultra-high-sensitivity HD camera system with low power consumption;
30 fps color video recording now possible with 0.005 lux

Magazine

DX ANTENNA CO., LTD. **2013.11.14UP**

Exhibits IPDC technology in 3 corners, under the theme of "IPDC WORLD 2013"



Magazine

TOTSU INTERNATIONAL CO., LTD. **2013.11.14UP**

Showcasing Miranda's 4K/60p-compatible multi-viewer, demonstrates integration with large-scale switchers, and offers 4K/8K solutions

Magazine

ComodoMattina, Inc. **2013.11.14UP**

Presenting QU-16 Compact Digital Mixer, Approaching The Ultimate In Ease Of Use, USB HDD Connection Enables 16ch Multi-Tracking

Magazine

Capella Systems, LLC **2013.11.14UP**

Demonstrating the Cambria Live Studio all-in-one Internet live-streaming system

Magazine

GoPro NIPPON **2013.11.14UP**

Showing GoPro HERO3+, lighter and smaller with new features

Online Magazine Headline

Magazine

Toshiba Corporation 2013.11.14UP

Exhibiting four new TV master system concepts Professional-use 4K UHD monitor prototype also on display

Magazine

Videotron Corporation 2013.11.14UP

Exhibiting "ST-350V4K" character generator with 4K support and superimposing function

Magazine

Aurora Lite Bank Co. 2013.11.13UP

LED light fixtures and large luminescent surfaces on display

Magazine

JBS CROSS INC 2013.11.13UP

Demonstrating a 4K cross-platform workflow, RED and BMCC RAW recording, DaVinci Resolve editing, and delivery

Magazine

IMAGENICS 2013.11.14UP

Exhibiting its first multi-signal seamless switcher, equipped with two-circuit seamless mode, with sixteen inputs and four outputs

Magazine

FOR-A COMPANY LIMITED 2013.11.14UP

Introducing a family of tech devices supporting 4K that includes the FT-ONE, the world's first full 4K high speed camera, as well as new file-based, archiving, and baseband related products.

Magazine

Autodesk Ltd. 2013.11.13UP

Conducting demonstrations centered on the latest version of VFX software 'Flame Premium 2014'

Magazine

Hitachi Kokusai Electric Inc. 2013.11.13UP

Displaying the transmitting equipment "FR-ZU200/ZU400" used for marathon broadcasts, supports frequency migration

Magazine

MATSUDA TRADING CO., LTD. 2013.11.14UP

Showcasing ORBAN Series of high-quality audio processors for TV, FM, and AM broadcasters

Magazine

Solid State Logic Japan K.K. 2013.11.14UP

Exhibiting its first sound reinforcement console, the "Live L500," for the first time in Japan

Magazine

KYOSHIN COMMUNICATIONS Co., Ltd. 2013.11.13UP

Kyoshin Communications showcasing and Conducting daily demos of Mistika tool box capable of everything from editing, compositing, and painting to finishing all on the same timeline

Magazine

Media Garden Inc. 2013.11.13UP

LED illumination system from Litepanels on display; delivers 2 kilowatt light intensity with only 350 watts

Magazine

Seika Digital Image Corporation 2013.11.14UP

Demonstrating a 4K workflow with RED cameras; displaying "Focus View", a lens control system for 4K camera focusing

Magazine

Sennheiser Japan K.K. 2013.11.13UP

Displaying its frequency reallocation-compliant D9000 series digital wireless microphone, delivering high quality sound with uncompressed transmission

Magazine

ITOCHU Cable Systems Corporation 2013.11.13UP

Introducing various new file based solution products that are compatible with 4K

Magazine

Carl Zeiss Co.,Ltd. 2013.11.13UP

Showcasing a number of manual focus lenses with full frame coverage and showing a 15-30 mm zoom lens scheduled for release mid-next year for reference

Online Magazine Headline

Magazine

Atomos Co., Ltd. 2013.11.13UP

Exhibiting Atomos Spyder, a compact calibration tool; performing live demos with major camera makers' products; setting up a studio to deliver news from inside the venue

Magazine

Sakura Eiki Co., Ltd. 2013.11.13UP

Nnew Prunus P.P.R.; delivers quick splicing on par with linear editing

Magazine

Frontiers Co., Ltd. 2013.11.15UP

Offering more sizes of 'talking posters'

Magazine

SANSHIN ELECTRONICS CO., LTD. 2013.11.15UP

Displaying LiveU's live video transmission system

Magazine

nac Image Technology Inc. 2013.11.13UP

AMIRA Single-User Camera Offers Beautiful Skin Tones, Natural Color Rendering, Low Noise, 14-Stop Dynamic Range

Magazine

NKL 2013.11.13UP

Demonstrating a variety of foreign imported anti-vibration equipment, as well as their independently developed products which provide powerful support for filming.

Magazine

METAL TOYS 2013.11.15UP

To Show, Demo The Beetle, Small Camera Dolly Used In 'Amachan'

Magazine

BROAD-DESIGN Co.Ltd 2013.11.15UP

Showcasing a multipurpose HiAce, a 2.8 kVA 'light power supply vehicle', and more

Magazine

Kenko Professional Imaging Co., Ltd. 2013.11.13UP

Tokina Cinema ATX Lenses on display; equipped with dual PL/EF mounts, new aspherical lenses providing high-level image rendering performance

Magazine

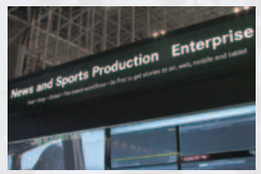
EMC JAPAN K.K. 2013.11.13UP

To Demo 4K Image Production Big Data Workflow With Isilon Scale-Out NAS, Also Invitation Only Seminar on the 15th

Magazine

Quantel K.K. 2013.11.15UP

Presenting evolving high-end color & finishing system Pablo Rio; showcasing new product range Pablo Rio 2KO



Magazine

Visual Graphics Inc. 2013.11.15UP

Demoing various video editing and finishing solutions, showing off "WIRED SERVER" nearline server with high-speed data transfers supporting uncompressed 4K

Magazine

Blackmagic Design 2013.11.15UP

Showcasing a variety of new products with focus on Ultra HD 4K products utilizing 6G-SDI technology

Magazine

PROSPER ELECTRON Inc. 2013.11.15UP

To Show Android Adapter For Intercom/Headset Systems

Magazine

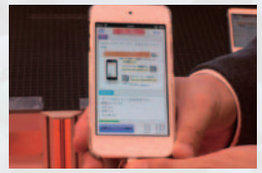
IKEGAMI TSUSHINKI CO., LTD. 2013.11.15UP

Showcasing the cinematic video-producing HDK-97ARRI, OLED master monitors, and more

Magazine

Multiscreen Broadcasting Study Group 2013.11.15UP

37 commercial broadcasting networks push for the "Second Screen" platform configuration



Online Magazine Headline

Magazine

Audio Brains co., ltd 2013.11.15UP

Showcasing the MLA Mini, a new, small-sized version of the Martin Audio MLA speaker system that creates an ideal listening environment throughout a venue

Magazine

hibino intersound corporation 2013.11.15UP

Showing Gefen's Multiview Seamless Switcher along with the Daisy Chain HD System with support for up to 100 displays and extendable up to 100 m between units

Magazine

Adobe Systems Co., Ltd. 2013.11.15UP

Introducing the latest features of Creative Cloud, including Premiere Pro Full 4K workflow functionality including compatibility with 4K/59.94p output and all types of RAW data

Magazine

Avid 2013.11.15UP

Showcasing a variety of products and solutions based on "Avid Everywhere" - Session with artists visiting Japan from the film "Star Trek Into Darkness"

Magazine

Continental Far East Inc 2013.11.15UP

Presenting the product range from Berlin's ADAM Audio High-quality tweeters receive high praise at home and abroad

Magazine

S.C.ALLIANCE INC. 2013.11.15UP

Presenting Japanese debut of three new products by Wheatstone

Magazine

TECHNONET CO., LTD. 2013.11.15UP

Exhibiting Sportscoder 4K real-time 3D graphics system with 4K support

Magazine

Gin-Ichi Corporation 2013.11.15UP

Showing a variety of new Steadicam products from cinema camera-compatible designs to a specialized GoPro version; also demoing Canadian company Cinevate's motor unit-equipped slider which is ideal for composing shots

Magazine

NobbyTech. Ltd. 2013.11.15UP

The Japanese debut of the latest 'Phantom', which is 4K compatible and can film at 1000 frames per second (33x speed)

Magazine

TC GROUP JAPAN, Inc. 2013.11.15UP

Exhibiting its updated processor, the System 6000 Mk II, and unveils its conversion tool 'UpCon', for upconversion and downconversion between stereo and 5.1 surround sound

Magazine

Toshiba Lighting & Technology Corporation 2013.11.14UP

Introducing an extended LED system based on the concept of a full LED system

Magazine

Roland Corporation 2013.11.14UP

Demo 4K/8K-capable event video display: PR-800HD multi-format video presenter offers uncompressed video output

Magazine

Explorer Inc. 2013.11.15UP

Explorer demonstrates 4K real-time HEVC codec, development promoted by NEDO's innovation venture support project; also introduces original "rate control function" technology

Magazine

D&M Holdings Inc. 2013.11.15UP

Demo their new Ethernet compliant solid state recorder

Magazine

NTT Advanced Technology Corporation 2013.11.14UP

Exhibit their latest video codec products for the first time domestically

Magazine

Traffic Sim Co., Ltd. 2013.11.14UP

New Version of the HACOBE2 Portable TS Recording Analyzer, Now With DTTV/BS Modulation

Online Magazine Headline

Magazine

Extron Electronics, Japan 2013.11.14UP

Displaying an HDMI compliant paperless meeting support system and an HDCP compliant video wall processor which supports diverse video signals

Magazine

Rohde & Schwarz Japan 2013.11.14UP

Exhibiting 4K transmission solutions including the 'Venice' Media Production Hub for 4K broadcasting, a 4K HEVC transmission module, and TS monitoring

Magazine

PFU LIMITED 2013.11.14UP

Exhibiting the 'QoolTornado QG70' high-definition video transmitting device, and propose practical uses for bidirectional multicast transmission and 4K storage and editing workflows

Magazine

Shibasoku Co., Ltd. 2013.11.14UP

Exhibiting the 'TS800A' sync signal generator with two synchronized generating units that outputs SYN even when there is interference Also exhibit the 'TG4000' 4K test signal generator

Magazine

Mitsubishi Electric Corporation 2013.11.14UP

Implementing an HEVC codec on a single small circuit board

Magazine

TAC SYSTEM, INC. 2013.11.14UP

Exhibiting Thunderbolt-PCI-E expansion chassis with Mac Pro support

Magazine

Manfrotto Distribution 2013.11.15UP

Displaying bridge technology heads, DSLR tripods, and small, lightweight rigs suitable for Japanese builds

Magazine

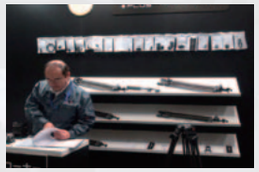
Cosmic Engineering Inc. 2013.11.14UP

Demo small-format live HD broadcast/delivery vehicle with patented transport rack system. Control up to 6 cameras simultaneously

Magazine

HEIWA SEIKI KOGYO CO., LTD. 2013.11.14UP

Displaying its flagship model RSPLUS 750/850 With exhibits to experience the 7-step torque variable counterbalance system, and a repair consultation counter



Magazine

Panasonic Corporation / Panasonic System Networks Co.Ltd. 2013.11.14UP

Exhibiting the new 'AG-HPX600' camcorder that employs AVC-Intra capable of 10-bit full-HD recording Provide reference demonstrations of remote editing and streaming with tablets

Magazine

MITOMO CO., LTD. 2013.11.14UP

To Show File-Based Total Workflow Concept, Win an iPad Mini Retina At New Web Service Totte Event!

Magazine

NIHON ELECTRO HARMONIX K.K. 2013.11.14UP

Demonstrating 15Mbps HEVC 60p playback of 4K video recorded on RED

Magazine

ONKYO TOKKI LTD. 2013.11.14UP

Showcasing the TESIRA Server 10, the world's first AV dedicated DSP with Ethernet AVB, capable of 420×420 audio transmission.

Magazine

Daikin Industries, Ltd 2013.11.14UP

Demonstrating their video editing and effects system 'Smoke' and their node-based texture tool 'Genetica', and more

Magazine

NIXUS Hokkaido Nikko Telecommunications, Co., Ltd. 2013.11.14UP

Experience NIXUS Product Suite In 4K, World's First 4K Full Virtual Studio, Demo Seamless Cloud Connectivity

Magazine

YAMAHA MUSIC JAPAN CO.,LTD. 2013.11.14UP

Exhibit of Yamaha, Steinberg, and NEXO-brand products under Yamaha's theme of "Connect with Experience"

Online Magazine Headline

Magazine

LSI JAPAN CO., LTD. 2013.11.14UP

Eemonstrating a workflow with the use of a real-time subtitle input system developed by the company itself

Magazine

TOMOCA Electronics Co.,Ltd. 2013.11.14UP

Showcasing a variety of optical transmission products including the CopperHead fiber optic camera transceiver which adds optical transmission functionality to ENG cameras

Magazine

Kowa Optical Products Co.,Ltd 2013.11.15UP

Displaying of their new HDMI switcher, a twisted pair cable extended distributor that can be extended up to 180m, and more

Magazine

LIVEGEAR Inc. 2013.11.15UP

Showcasing K-array KAN200 Anakonda Speaker with long bendable body for flexibility in installation

Magazine

ASK CORPORATION 2013.11.14UP

Showcasing software by AJA Video Systems for real-time Region of Interest selection in 4K video, also features a new I/O product compatible with Thunderbolt 2

Magazine

BOSE KABUSHIKI KAISHA 2013.11.14UP

Set to expand product range for large spaces, showcasing a variety of new products including speakers, amps, and processors

Magazine

JAPAN MATERIAL CO., LTD. 2013.11.15UP

To unveil "VidiGo Live" a 12 input 2 output multi-camera video production system for the first time in Japan

Magazine

CamCast7 Inc. 2013.11.15UP

Exhibiting Bond 3G/4G/LTE-compatible live broadcasting unit with integrated H.264 encoder, and Bolt wireless HD transmission system with 90 meter visible transmission distance

Magazine

UNITEX Corporation 2013.11.15UP

To unveil world's first portable LTO video archive system with USB 3.0 connectivity and integrated LTO-6, bringing large work reductions at 4K video filming locations

Magazine

PIXTA Inc. 2013.11.15UP

Stock photo and footage marketplace site with over 6,000,000 items, selling HD video footage starting at ¥9,450; use increasing in digital signage and elsewhere

Magazine

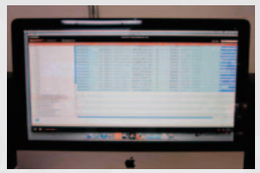
FS-NET 2013.11.15UP

Exhibiting “4K Work Station for EDIUS,” editing machine loaded with EDIUS Pro 7 and capable of 4K playback

Magazine

CRYPTON FUTURE MEDIA, INC 2013.11.15UP

Exhibiting free Mutant sound management software, enabling users to search for and purchase sound material based on keywords or concept



Magazine

Strawberry Media Arts Co., Ltd. 2013.11.15UP

Extra-large video display systems for use in television studio sets – products on display include a high-definition LED display screen that is installed into the floor and is OK to walk on

Magazine

ASTRODESIGN, Inc. 2013.11.15UP

Exhibiting a "real 8K" video wall for the first time in the world; a 200-inch equivalent large screen for public viewing purposes

Magazine

RED DIGITAL JAPAN 2013.11.14UP

Debuting Red Epic-M Dragon, equipped with the 6K Red Dragon sensor, and screening 4K video productions

Magazine

CTCSP Corporation 2013.11.14UP

The Future of Video Ecosystems Showcases The General Release of Elemental 4K/HEVC Encoding Systems

Online Magazine Headline

Magazine

Rovi Corporation 2013.11.15UP

Demo 4K Playback With DivX HEVC Codec, Introduce HEVC Playback On Mobile Devices With SDK

Magazine

YUASA CO., LTD. 2013.11.14UP

Compact on-board extendable poles, hydraulic system size reduction

Magazine

CHIEF 2013.11.14UP

Displaying ceiling-type nine-panel mounting brackets and a stand with casters that allows 136 kg, 85 inch LCD boards to be attached

Magazine

SUNMUSE, Inc. 2013.11.14UP

Exhibiting the EQ plugin 'SurferEQ' from Israeli company Sound Radix; offers effective equalization of vocals, and other sounds with variable fundamental frequencies

Magazine

SEMTECH JAPAN 2013.11.14UP

Demoing 3D-SDI related products Introducing 4K TV output based on 6G solutions

Magazine

Shoshin Corporation 2013.11.18UP

Using optical fibers to send 4K uncompressed video and KVM signals to enable remote operation over 40 km (Tokyo to Kawagoe and Totsuka)

Magazine

VILLAGE Island Co., Ltd. 2013.11.15UP

Showcasing VillageStudio 4K Player capable of 4K 60p playback and supporting a variety of formats including HEVC, XAVC, and more

Magazine

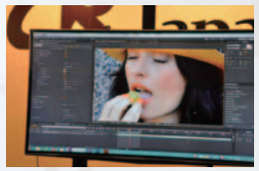
Enroute Co.,Ltd. 2013.11.19UP

Displaying of their domestically developed Zion series multi-copter for aerial photography. Foldable-type for improved portability.

Magazine

Flashback Japan Co.,Ltd. 2013.11.18UP

Showcasing "Beauty Box Video," skin retouching software for the 4K era that can automatically remove wrinkles and blemishes



Magazine

DHT Corporation 2013.11.18UP

Accusys high-speed RAID storage system with support for PCI-E 2.0, approx. twice as fast as Thunderbolt, capable of loading up to eight SSD

Magazine

PHOTRON LIMITED 2013.11.19UP

Offerings an array of digital work-flow solutions, showcases 4K RAW and Dolby Atmos compatible DI mastering system

Magazine

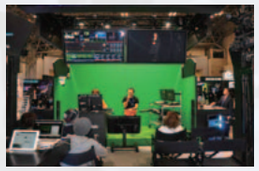
Sony Corporation/Sony Business Solutions Corporation 2013.11.19UP

Exhibiting of 4K products, including solutions for 4K live broadcasting

Magazine

D-Storm, Inc. 2013.11.15UP

To unveil NewTek's new lineup including TriCaster 410 and new models of current products with expanded functionality



Magazine

Z3Japan Co.,Ltd. 2013.11.18UP

Conducting demo of real-time decoding of 4K video from a USB 3.0 memory stick

Magazine

MI Seven JAPAN, Inc. 2013.11.19UP

Newest PreSonus Digital Mixing System, First Time In Japan; Latest Versions of Zynaptiq AI-Supported On-Target Audio Tools

Magazine

AT Communications K.K. 2013.11.15UP

To Show Swe-Dish Satellite Terminal For Broadcaster, Mounted On Toyota FJ Cruiser, Transportable/In-vehicle Use Allows For Wide Area Coverage

Online Magazine Headline

Magazine

MEDIAEDGE Corporation 2013.11.20UP

Showcasing Multi-channel Loop Recording System adopted by Kansai Telecasting, ideally suited for post-disaster coverage by enabling simultaneous recording of 21 channels on one server, display of up to nine live video feeds at once

Magazine

Born Digital, Inc. 2013.11.19UP

Introducing NUKE, and other software by U.K. firm, The Foundry

Magazine

MEIKO TECH CO., LTD. 2013.11.20UP

Showcasing industry-leading 'Multi Video Wall System' capable of displaying an unlimited number of windows and demonstrate simultaneous display of 484 screens

Magazine

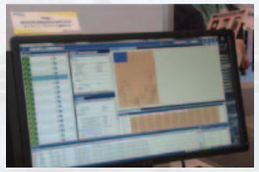
Digital Laboratory, Inc. 2013.11.21UP

Exhibiting its paid-monthly rights reporting service, designed to make reporting song usage to JASRAC easier. Combines multiple services to offer full-support for all stages of the usage reporting workflow

Magazine

IT Access Co., Ltd. 2013.11.15UP

Showcasing latest overseas products — four HEVC products including HEVC analyzer supporting 4K 60p, as well as second screen solution, etc.



Magazine

SHIZUKA Inc. 2013.11.20UP

Deploying soundproofing technology used for machinery soundproofing, Shizuka exhibits its new acoustic panel for the first time in Japan. Honeycomb structure and newly-developed foam resin material absorb most noises. Device was a big hit at AES in New York

Magazine

CANAL WORKS CORPORATION 2013.11.21UP

Custom 100% Made in Japan Professional Grade In-Ear Monitors, Built Just For You in About 3 Weeks

Magazine

ZEAL Inc. 2013.11.21UP

Exhibiting Honeywell ceiling speakers and box speakers for the first time in Japan Proposes new usages for stores and commercial facilities High quality acoustics which maintain fidelity even in the low-frequency range

Magazine

SISVEL Technology S.r.l 2013.11.15UP

Presenting their proprietary technology for 3D video generation, '3DZ Tile Format', developed jointly with Russian firm Triaxes

Magazine

Studer Japan Broadcast Ltd. 2013.11.15UP

Exhibiting Vista 5 digital mixer's latest version, M3, featuring a built-in RTQ TM7 loudness system, as well as a software upgrade of its auto-mixing function and more

Magazine

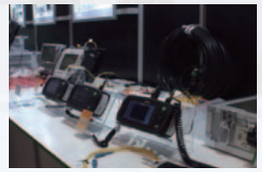
V-Low Digital Community Radio Group 2013.11.15UP

Digital Radio Emergency Use, Demonstrate Disaster Emergency Contact

Magazine

ANRITSU CORPORATION 2013.11.15UP

Exhibiting a variety of measuring instruments, including fiber-optic cable maintenance and troubleshooting measuring instruments



Magazine

MEDIA GLOBAL LINKS CO., LTD. 2013.11.15UP

Exhibiting low-cost version of its MD8000 multimedia transport system capable of long-distance transport of a variety of video signals, as well as IP-based optical router jointly developed with NHK

Magazine

Gracenote K.K. 2013.11.20UP

EyeQ InScreen TV Program Info, Recommendation Display Adopted By Sony For 28-Plus Countries, 19,800 Channels; Second Screen & Content Recognition Technology

Magazine

FIRST ENGINEERING CO., LTD. 2013.11.15UP

Exhibiting the "Magic Panel," a moving light from the French company Ayrton. It features 36 15 Watt LEDs, capable of endless pan and tilt movement in 360 degrees

Magazine

ELECTORI CO., LTD. 2013.11.15UP

Showcasing four models of Peluso microphones styled after the Neumann U-47, with varying sounds produced by vintage, metal, and glass triode vacuum tubes

Online Magazine Headline

Magazine

Grass Valley K.K. 2013.11.15UP

Grass Valley's GV Director non-linear production center integrates three features: live camera source, video server, and character generator

Magazine

Japan Communication Equipment Co., Ltd. 2013.11.15UP

Displaying a 100 W FM transmitter system compatible with FM broadcast-wave relays, and a 30 W emergency FM transmitter; development of 500 W and 1 kW FM transmitters also underway

Magazine

NTT Electronics 2013.11.15UP

4K camera footage encoded at Sony booth, transported optically to NTT booth, decoded in real-time and displayed in 4K

Magazine

OTARITEC 2013.11.14UP

Showcasing several new products from a variety of manufacturers. Lawo's 'V_Pro8' video processor is loaded with multi-format converting, color correction, and embedding/de-embedding functions

Magazine

ATEN JAPAN CO., LTD. 2013.11.15UP

Displaying an 8-input, 8-output matrix switcher, and a new product – an HDMI extension distributor able to extend 4K video distribution over distances up to 100 meters

Magazine

MOUBIC INC. 2013.11.15UP

Exhibiting their extremely-compact, portable station 'MSAT' Can be taken onto aircraft as hand luggage Ideal uses include first on scene broadcasts, urgent reports, event relay broadcasting

Magazine

SETTSU METAL INDUSTRIAL CO., LTD. 2013.11.15UP

Exhibiting 'Explorer Cases' used by NATO European forces & featuring superior dust proofing and waterproofing; 19-inch cabinet racks optimized for crisis management and wood-grain racks

Magazine

NEC 2013.11.15UP

Presenting broadcasting equipment and systems of the near future based on the theme "Feel the Innovation"

Magazine

ARDIS TECHNOLOGIES 2013.11.15UP

Ethernet high-speed shared storage 'DDP' Provides 100 MB/s with G-Ethernet connection New function enables user bandwidth control during operation

Magazine

Tech Trust Japan Co., LTD. 2013.11.15UP

Lectrosonics Wireless Mic System Conforms to New Radio Regulations, Proprietary High-Grade Audio 90% Share of ENG Market in US

Magazine

Fujitsu Limited 2013.11.15UP

Demonstrating its multi-monitor/video switching software as well as its media asset solution Media Pool

Magazine

Tektronix 2013.11.15UP

Showcasing 4K-capable video signal measurement/HEVC analysis solutions and demonstrated a variety of new products

Magazine

NEP Inc. 2013.11.15UP

New Products, V-Mount Battery With USB Port, LED Lights With Touch Panel Control For Dimming and Color Temperature

Magazine

ALVIX Corporation 2013.11.22UP

Exhibiting an on-air subtitle and loudness monitoring system, the first in the industry; subtitling in response to the growth of 1seg data broadcasting and the Ministry of Internal Affairs and Communications' policy of expanding the use of subtitles in the broadcasting of commercials; responding to an age of diversification

Magazine

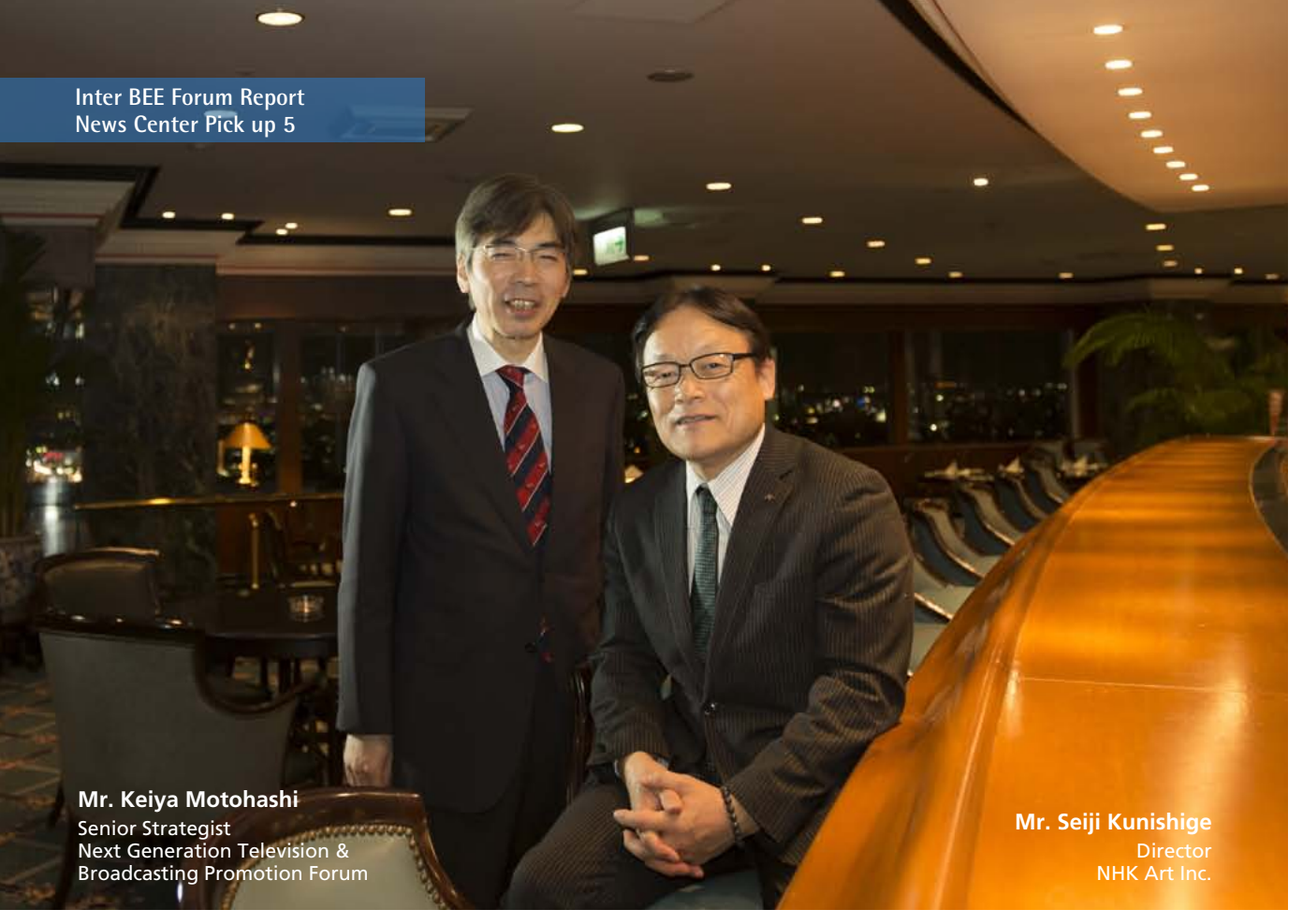
CANAL WORKS CORPORATION 2013.11.26UP

Showcasing its IBC 2013 top-award-winning Active BNC connector, as well as a thin & light fiber optic camera cable with improved transmission range and 3G-SDI optical converter

Magazine

A&A Co., Ltd. 2013.11.26UP

Display of Vectorworks Spotlight, a CAD software for stage lighting, artwork, and sound planning Visualize the light and sound of your imagination



Mr. Keiya Motohashi
Senior Strategist
Next Generation Television &
Broadcasting Promotion Forum

Mr. Seiji Kunishige
Director
NHK Art Inc.

Toward the new century of broadcasting in 2025
Broadcasting that makes society richer and more convenient

At the video symposium held on November 15, there was a speech and panel discussion titled "Current Situation of New Broadcasting Media Services and Future Development: Expectation to the Content of Super Hi-vision (4K/8K), Smart TV and Radio." Together with people involved in making new programs at the forefront of television and radio, Mr. Keiya Motohashi from the Next Generation Television & Broadcasting Promotion Forum that was established in May 2013 appeared on stage to talk about the recent situation and future outlook. In this article, Mr. Seiji Kunishige, who is one of the producers of this symposium, asks Mr. Motohashi about the current situation and future challenges/outlook of the NexTV Forum from the standpoint of a creator in a broadcasting station.

Over many years at NHK, Mr. Kunishige attempted to take advantage of computer graphics in television shows and also explored new broadcasting forms, such as data broadcasting. Later, after moving to NHK Art, his field of activities spread to content production and various stage productions with a focus on the technical skills and planning capabilities he acquired in broadcasting. Mr. Motohashi was responsible for TV Japan operations, Internet deployment and the popularization/development of BS/terrestrial digital broadcasting for multimedia content production and video transmission to the Europe/America/Asia regions in NHK. This was an unreserved interview from the standpoint of a former senior and junior in NHK.

Integrated realization of SHV and Smart TV

Kunishige: This video symposium had the theme of the "current situation and future prospects of new broadcasting media services." I think this was something very easy to understand that made it possible to learn about the overall image of Super Hi-Vision (SHV) and Smart TV. Above all, I was able to get a better understanding about the importance of the role of the NexTV Forum where Mr. Motohashi serves in the Executive Office.

Broadcasting media, such as television and radio, has progressed together with the evolution of technology over a long period of history. This was previously led by broadcasters, but now, as we welcome a new phase in broadcasting media services focused on SHV and Smart TV, we are arriving at the establishment of new services only for broadcasters. First, upon the understanding by broadcasters of the varied characteristics and features of the media, "new broadcasting media" is born. Under these circumstances, the activities of the NexTV Forum have a very important meaning I think.

Motohashi: The roadmap published in a report by the government's Broadcasting Services Sophistication Investigative Commission lays out the vision for the implementation of 4K test broadcasting in 2014, the implementation of 8K test broadcasting in 2016 and then the start of the so-called full-fledged commercial service in 2020. Along with the commercialization of "Super Hi-Vision," the important point contained in this report is that "the development of services and equipment for Super Hi-Vision and the next-generation Smart TV proceeds in unison as far as possible." There is a tendency to think of "Super Hi-Vision = high resolution" and "Smart TV = high performance" in separate terms. However, in fact, these are regarded as one in the Broadcasting Services Sophistication Investigative Commission. In 2020, television will no doubt be able to offer various services linked up to the Internet in addition to having high resolution programs sent from broadcasting stations. I think the goal of building an environment in which it is possible for users to fully enjoy these services toward this era is a very important point in this sense.

Kunishige: In the opening of broadcasting, specifically, the linkup between the current Super Hi-Vision and the next-generation Smart TV will eliminate the separation between the two. In concrete terms, what kind of mechanism are you considering?

Motohashi: The NexTV Forum is considering attractive Smart TV services based on the technology of satellite broadcasting from 2014 to 2016. For example, one of these services is called "remote viewing." This remote viewing makes it possible to enjoy channels received on your television at home while on vacation or a business trip. Moreover, we are thinking about services like applications that are linked to programs. This is a service that is linked to social media with relevant information being transmitted from the Internet or information related to broadcasting content mutually sent to each other through televisions/tablets in order to more deeply explore program contents called "Next Generation Smart TV." It will be possible to break free from the conventions of broadcasting that uses traditional radio waves by the realization of these services. However, at that time, we must think about what is the definition of "broadcasting."

The media usage environment of ordinary people far exceeds their preparedness to view content provided by broadcasting stations due to the progress of technology including the Internet and the penetration of this into the general market. I think it is already impossible to proceed without mentioning the Internet when broadcasting stations operate business in the relationship with their audience for their region of activities and in contributions as "broadcasting stations."

Mass production of works and the realization of VOD

Kunishige: I think the NexTV Forum is playing the role of leading the road map suggested by the government. First, however, we soon have the test broadcasting in 2014. Until now, 4K has been based on digital cinema technology, but the requirements and technologies will again be very different for these broadcasts.

Motohashi: Yes. Indeed, the NexTV Forum will continue to play a role in terms of "broadcasting responsibility" as the main body of the test broadcasting in 2014 and 2016. In the test broadcasting stage, we, the collection of broadcasting stations, will be the "main broadcasting body" and the "main organization body." We are considering a scheme in which broadcasting stations themselves will gain independence for commercial services in a few years' time.

I think there are two courses of action. One is to what extent it is possible to mass produce works. This is the point of view that it is possible to mass produce content and production. The other course of action is running VOD-based services in parallel as the so-called transmission capabilities other than broadcasting.

In regards to the program production of the first, most 4K professional production equipment at present has been developed for digital cinema. This is only natural because up to now there has been activity with 4K in broadcasting. In that sense, there is still room for reform and improvement at present in making many television programs at a reasonable cost. This is used and recorded live while switching

to what is happening in the field at that moment by setting up ten cameras at the same time such as is typical in sports relay broadcasting. This goes for sports, music and studio shows. The current 4K mechanism is not made like in this way.

However, reform and improvement is starting to be made for television while based on movie equipment. The broadcasting stations participating in the NexTV Forum are making programs for the time being with the current equipment, holding trials and building up their expertise in production. At the same time, they are also giving various opinions and sharing challenges, as well as discussing about and encouraging the reform of equipment like this. I hope that sooner or later the cost of program production will gradually settle down if the equipment becomes less expensive and usability improves.

In order for the broadcasting culture and broadcasting business to aim for the even greater wonderment of 8K and not be limited to 4K, it is important to have an environment in which it is possible to build acquaintanceships and trial various test programs in a range of genres that can be attempted by everyone. Producers must make acquaintances. The development of equipment for this will mainly be done by NHK, but NexTV Forum will build an environment in which everyone can use this.

One more thing is that if it becomes possible for a number of 4K programs to be viewed on VOD as a VOD service, people with 4K televisions will be able to make selections over the Internet and view these when they want to. I think that 4K will spread if there is the launch of a service in which programs based on VOD are run in parallel as soon as possible together with the start of broadcasting.

Smart TV is new business; possibilities of expression

Kunishige: Smart TV has only just started operations so there are still many challenges remaining, but what do you think about the strategy when considering linkage?

Motohashi: The participants of the NexTV Forum are also extremely interested in this, so this has been listed as a theme in our survey in this financial year. There are also those urging caution among the creators in broadcasting stations. There is still a deep-rooted wariness about whether the broadcasting business model will be impaired. However, conversely, there is also the "possibility of new business" and the possibility of new creative expressions. I feel things will start to proceed smoothly once we find a success story, such as "we could do this if that was at our station" or "we might be able to offer this service if this was a program in the genre our station works on." The way of using media is gradually becoming more complete for Internet users, so if we only involve ourselves with traditional broadcasting, our presence will steadily drop. In order to further spread the content and creative expertise possessed by the characteristics of broadcasting and broadcasting stations, I think it is essential to acquire a method that smoothly uses the capabilities of the Internet.

Kunishige: In the future, with the clarification of various challenges, how will these be solved afterward? I think this is especially a worthy place for you to be a leader in.

Motohashi: Well, because such an opportunity has come along, we should pay attention to "how we can raise the motivation of everyone." How should we design individual businesses? To what extent should we make 4K programs? At what time should we release these on television? These questions are related to the strategies of individual companies, so this is not something we should interfere with too much. In short, instead of people who want to run services doing everything at once, we will create an environment in which the people who want to do so can. Against this background, it is important for those who have motivation to move steadily forward. Everyone moving along at the same pace looks beautiful at first glance, but there is a danger of this becoming something where people feel it is "best to wait slowly until everyone's preparations are complete." As far as possible, the people who have this motivation pull along everyone else or this stimulates the people following on after them.

Aiming for open information sharing

Kunishige: Are there any benefits for that with respect to outside the NexTV Forum?

Motohashi: The NexTV Forum gathers together people paying their dues who are working hard to contribute in some way. At the same time, we believe we should be open as far as possible to those also outside of the organization with a desire to increase the sophistication and develop Japanese television services and media services. We will also continue to properly provide information for those who are not a part of NexTV Forum. For example, if we decide upon standards for 4K/8K broadcasts, we will make these open to everyone. First, we will share information with our members, but without being limited to this, once a certain amount of time passes, we will open this up to everyone so that they can use this technology. Alternatively, we hope to see an increase in people appearing who would like to make Internet services by using this technology. It is no good if only members are ever able to benefit from this. I think there is a need for people who enter this organization with some intentions to lead this across the industry as a whole or lead media across all of society while everyone is working hard at this. Our aim is not about whether individual broadcasting stations profit from this or not; although that is also important. We are looking to see whether the benefits of digital and the advantages of technology are being properly returned to viewers/users and whether society is becoming richer and more convenient. 4K/8K and Smart TV are the tools for this and I believe it is extremely important to deliver passion, empathy and information different to traditional television services through this.

Kunishige: From the point of view of whose who are making media, I think creativity itself will lead to dramatic progress. What do you think about this?

Motohashi: I think the directors/producers in the field and makers/creators of programs and content in various genres that are "interested in these tools and take advantage of them in their work" will see a variety of benefits while they are doing so. I truly have great hopes about embarking on this in fields different from traditional television among the links up with the Internet.

Toward 2020 and then on to 2025

Kunishige: Finally, what are your ambitions for the future?

Motohashi: The year 2020 is one of the targets in the road map and is also when the Tokyo Olympics will be held. I would like to press ahead from now on with preparations so that there will be significant growth by 2020 in Japan through this event which is one of the major jumping boards in the development of media. Furthermore, 2025 after that will be the year in which we celebrate 100 years of broadcasting. Broadcasting, which started with radio, has been steadily evolving by using the technologies of the times and has been useful to society by delivering rich passion and culture to the people. I believe that the buildup of technology for this is 4K/8K Smart TV. Therefore, now is still just a starting point, but I would like to add strength to this little by little.

Kunishige: I guess you could put it that your hopes for 100 years are a "new century of broadcasting" and a "new century." You will be looking to play a major role toward this of course.

Motohashi: A major role? (Laughs) In any case, we have truly entered an interesting era. The intense progress of technology and the ability to provide new services by utilizing this situation that is dynamically moving with various competitive environments is something that is truly a great chance. I don't think we can afford not to take advantage of this.

Interviewers

Mr. Mick Sawaguchi
President, Mick Sound Lab inc
Fellow AES/ ips

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

Coordinator
Mr. Shinichi Kyoda
Chief Technical Officer, TC Group Japan, Inc.

Speaker
Mr. Thomas Lund
CTO Broadcast & Production,
TC Electronic A/S

On the first day of Inter BEE on November 13 (Wednesday), a special session was held with the title of "How Loudness Control is Changing the World of Audio." Mr. Thomas Lund, who appeared on stage during this session, serves as CTO in the Broadcasting & Production Department of TC Electronics which has its head office based in Denmark. Over the past ten years and more, Mr. Lund has been researching issues of loudness in digital music production and has been bringing up the impact of this. Moreover, he has also been mobilizing the medical knowledge which he learned to contribute to work on the standardization of loudness in broadcasting in the EBU. In addition to this, he has been giving lectures in order to spread recognition of loudness in Europe and America.

In 2010, Mr. Lund gave a speech titled "Broadcast Program Loudness and the Loudness Range" with a report on a subjective evaluation experiment into the permissible range of loudness in programs. He has given his backing to the movement for loudness standardization in digital broadcasting.

In this interview, he exchanges ideas with Mr. Mick Sawaguchi and Prof. Toru Kamekawa on the situation in countries in the EBU for which Mr. Lund has been involved in formulating the loudness standards, and the current challenges in regards to this issue.

Mr. Sawaguchi joined NHK in 1971 and has been responsible for numerous award-winning works that have been highly praised internationally. In 2003, he was appointed Head of the Program Production Engineering&Operations Center. He has worked on the development of surround sound and has received the title of fellow from AES and ips. In addition to this, he has also been honored as a "Master of Sound" in the JAS. After leaving NHK in 2005, he has been working as a Pioneer Advisor and serving as a teacher in the Department of Musical Creativity and the Environment at Tokyo University of the Arts. In addition, he has personally been leading Surround Terakoya Lab and working on education/dissemination activities in surround technology. In the high resolution music production UNAMAS label launched in 2007, "Reimei" won the Excellence Award in the newly established Non-Package Category at the 20th Professional Music Recording Award of Japan in 2013.

After joining NHK in 1983, Prof. Kamekawa worked in the Hiroshima Broadcasting Office and was responsible for the sound business of program technology in the Broadcasting Center. In October 2002, he was appointed to the Department of Musical Creativity and the Environment at Tokyo University of the Arts and has been conducting educational and research activities into recording and sound. He is also involved with the recording of CDs, movie soundtracks and game music.

Change of jobs from audiovisual medical research

Sawaguchi: Thank you for participating as a special presenter at Inter BEE 2013. Could you please introduce yourself?

Lund: First, I am very happy to be able to participate in Inter BEE. This is a really good exhibition. I was originally active in the field of medical education and medical science. In addition, I was also a musician and then recording engineer in Denmark. I had been specializing in human perception and in particular hearing and seeing. In the few years before I entered the world of audio, I had been working in a hospital and conducting perceptual research.

Sawaguchi: How old were you when you were working in the hospital?

Lund: That was from when I was around 28 to 31. At the beginning of the 1990s, I met the founder of TC Electronics and we spoke a lot about audio. This led to the present day after I received an offer to work at his company later on from that. Working in TC Electronics is really interesting. I have now already been working there for around 17 years.

Sawaguchi: What are you currently specializing in?

Lund: My official title at the moment is Chief Technology Officer (CTO), but I started from product management and then later became responsible for research and technology.

Sawaguchi: How many members of staff are there specializing in technology at TC Electronics.

Lund: There are about 41-42 employees in the Development Department. That is a lot for a professional audio company, isn't it?

Loudness born from distortion research

Sawaguchi: Since when and how have you been involved in loudness?

Lund: To tell the truth, I originally had more of an interest in sound quality. Much of the new pop music at that time in the mid-1990s was already being carried out by aggressive sound making. We were developing a processor to meet those sound making demands, but there were those among the users who made sound much flashier than necessary by using this equipment. Accordingly, making guidelines so that users would not use this equipment in excess like that was the starting point for our efforts into this problem of loudness.

At that time, we discovered distortions occurring on the side of playback equipment such as CDs due to the level of competition at the time of creation. This was an event around 1997. I and my colleagues wrote a paper on this topic and published this in the AES. I think this was one of the first instances in which the problems of volume and level/distortion at the time of recording were published as a paper in the AES.

Therefore, loudness was a derivative problem. Of course, solving this problem was not our final goal, but there was no direct reason for our interest in this at first. The cause of this level of competition was not necessarily a deliberate attempt to distort sound by everyone; rather we understood it to be a simple desire to make sound louder than with other CDs. Accordingly, we determined the peak that occurred was the cause of the distortion. From around 2000, this point became our main theme of research.

Sawaguchi: The convention that was held in Los Angeles in 2000 left a strong impression on me. I listened to you present your paper on 0dBFS over level. I was very interested in that. The idea that distortion occurs due to true-peak even without exceeding 0dBFS was a new point of view. I greatly admired that paper. (FS = full-bit scale)

Lund: I am happy to hear that.

Broadcasting stations in Japan, the U.S. and Europe continue with trial and error

Kamekawa: When did loudness regulations start in Europe?

Lund: That was in 2008 because it was a little after the EBU issued guidelines on this. There has been great progress with respect to the sound of television in Europe. As a result, the average level has been lowered and distortion has been further reduced so sound has become easier to listen to. Some radio stations have already been trialing application of these, but they are primarily being used by television stations for now. Producers are welcoming the introduction of the guidelines. There had previously only been rules based on peak level, so when creating a commercial for example, its loudness could vary significantly. There were only individual rules for each broadcasting station to the extent of whether viewers felt the sound to be too loud or not. There was absolutely no definite basis for these rules. Therefore, the new rules have made everyone aware of what needs to be solved, so they are extremely clear and transparent. Transparency is important for the producers of commerscials too.

Lund: Unfortunately, there are still some countries in Europe that have not started loudness regulations and Denmark is one of them.

Commercial broadcasting adopted these rules on an early basis in Denmark, but the public broadcasting in Denmark, similar to NHK, has been late in adopting these. That is because they prioritize things other than sound quality. For example, they are constructing new station buildings and laying off many members of staff to make the organization more efficient. There are now no longer any members of staff who consider problems like loudness as very important.

Poland was one of the earliest nations adopting these rules among Eastern European countries. However, there are still several countries in the region, including Bulgaria, that have still not adopted these rules. Nevertheless, if we look at Europe as a whole, the continent is heading in the right direction.

Kamekawa: Is there a difference in direction between the three regions of Japan, the U.S. and Europe?

Lund: Commercials in the three regions are measured the same way based on the new ITU loudness standard. However, in the U.S. regular programs are measured differently, namely based on an illusive "anchor" element, which can be speech, music or other sources that cannot be defined precisely. Commercials were measured based on "anchor" in the first U.S. loudness rules, but that of course wasn't good enough to ensure efficient control of them. With the CALM act against loud commercials from 2012, the U.S. rules therefore had to change to follow the ITU standard instead.

Today, Europe, Japan and most other countries share the same loudness rules that are also in effect for international program exchange. In the U.S., however, regular programs are de facto not regulated.

Decrease in complaints through loudness introduction

Kamekawa: Although the introduction of regulations has only just started in 2012 in Japan, there has been difficulty in attaining the target level at -24LLKFS, especially in commercials. Moreover, there is an issue in gaining the understanding of clients even when mixers want to implement these regulations. Is there a solution to this problem on the production side?

Lund: I do not think -23LKFS or -24LKFS is a problem. On the average, the level has only gone down 1dB or 2dB compared to previous mixing with peak meter level management. But with the new rules, we have much more headroom, so this pleases professional engineers. The problem is a misunderstanding by a number of stations and engineers that there is a need to always be at -23LKFS or -24LKFS. In the end, it becomes a waveform like a sausage in that situation. Instead, I hope the level of freedom in mixing increases because that was the intention behind the new standards.

Kamekawa: Have you ever carried out a survey or similar on viewers? What has been the difference before and after the start of these new rules?

Lund: Our firm has not done so, but a survey like that was carried out by the BBC and several broadcasting stations in Germany. Complaints about audio have been halfed since the start of application by the loudness guidelines, but there are still other types of complaints. For example, not being able to hear the words. However, speech intelligibility is complex, and loudness is just one of its componens.

Kamekawa: In Japan, how to get a balance between regulating the level and freedom of expression in program production has become an issue. I think more discussion is necessary. What do you think about the situation in the U.S. and Europe?

Lund: The new loudness regulations provide more freedom, not less. Producers can still produce a very compressed program or music track if that's what they prefer. The main difference is that highly compressed programs no longer has a negative effect on programs with a higher loudness range. We are effectively blocking the "vicious spiral" that has been destroying music heritage for decades now. It's important to understand, however, that the new standards cannot prevent all annoying level-jumps from happening between programs. If you transmit commercials in the middle of a quiet drama scene, listeners will still get annoyed, but it doesn't happen so often now, especially in Europe. With normal programs not regulated in the U.S., that also means more room still for level-jumps.

Loudness guidelines for each program form

Kamekawa: The topic of your speech was the loudness level, but the loudness range which you touched upon in that will also be a challenge in the future. How do you think it is best to manage the loudness range for each program?

Lund: I think the loudness range is one method to describe the objective characteristics pertaining to the sound of programs. In the world of audio, there have previously been few descriptive words pertaining to the sound of programs like this. Therefore, the creation of loudness range terms, such as average loudness and program loudness, are something that is convenient for those on the production side of the industry.

There are cases in which there is a demand to expand the range in dramas and similar from the point of view of production. However, if the loudness range is expanded too far, there are cases in which quiet sounds cannot be heard in regular listening environments. Nevertheless, it is no good if the range is too wide or too narrow, so mixing is performed in a studio so that it is possible to adjust this to the best possible extent. I think loudness range should mainly be adjusted during production and less through correction by an automatic processor at the station or in the home.

Kamekawa: Is there a plan to make loudness range guidelines for each program, such as in the news, documentaries and dramas, in Europe?

Lund: The EBU has made the determination it is best not to have regulations that are too strict. However, guidelines have appeared for a variety of programs. In particular, several broadcasting stations in Germany carried out a survey on the loudness range in various programs to investigate what is the best loudness range for which program. I think these results from Germany will be adopted as the standard values in the European guidelines. These will be EBU production guidelines rather than rules.

There are also cases in which the abuse of regulations is counterproductive

Kamekawa: What vision do you have for the future of loudness or the future of sound quality? What must we do for that future?

Lund: At present, there is a focus on high-resolution media, but our main problem of sound quality is something that must be solved before this. If sound is already dynamically destroyed, it doesn't matter if it's distributed at a higher sample rate or resolution. It is of course a good thing that it has become possible to easily enjoy high quality sound in stores on the Internet. However, in fact, data-reduced low quality sound has less capacity and can be downloaded relatively more easily. This means that the majority of people cannot enjoy the goodness of high quality sound. The general public today only gets audio of a quality comparable to a badly aligned compact cassette 40 years ago.

I think loudness normalization in distribution is the best way to break the vicious spiral that has destroyed years of every country's music heritage. Politicians need to take this seriously, and to ensure some national quality audio sources with little or no data-reduction. I hope politicians will step up to their responsibility, and help to make audio a potential carrier of art again. In countries with fine audio companies, such as Japan and Denmark, this would even be in their commercial interest.

In Europe, there are regulations that have been established by an organization called the European Committee for Electrotechnical Standardization (CENELEC). Some regulations aim at preventing hearing damage from listening to mobile devices. Of course, this is fine, but the problem is that these regulations are currently only applied to the playback level on individual music devices, such as iPods. If only playback gain is regulated, this leads to a pushing up of the average level in production. This means stepping up the “loudness war” even further. Hasty regulations like these should be avoided. It is necessary to understand that such regulations end up impairing the quality of audio. However, it requires a great deal of effort to raise people’s awareness of these problems. Last week, I participated in a meeting with CENELEC in London to discuss this problem. They were very surprised to hear the actual negative effect these regulations are having like this. There is much that still needs to be done before the general public can have audio of a decent quality in their homes and in their iPods.

JPPC 2013 "1st Post Production Conference 2013"

Implementation in Japan of video production training for U.S. state-of-the-art professionals

Impressed by the ambition of the Japanese people

On the final day of Inter BEE 2013 on November 15, there was a training event for professionals that has been held at the same as the NAB Show for nine years. Three relevant professionals came to Japan from the U.S. for this event called the "Japan Post Production Conference 2013 (JPPC 2013)". Many content creators came to this event where it was possible to attend in Japan with consecutive interpretation a seminar by top level presenters who hold this conference every year at the NAB Show.

We asked Mr. Jeff Greenberg and Mr. Richard Harrington who took to the stage at this event, and also Ben Kozuch who is the co-founder of Future Media Concepts who is the company that organized this event, about the aims and features of this conference, as well as about holding it in Japan.

Interview
(From the left in the photograph)

Mr. Jeff Greenberg
Future Media Concepts Instructor

Mr. Ben Kozuch
Future Media Concepts President, Co-Founder

Mr. Richard Harrington
Future Media Concepts Instructor

Q: Please tell us about all of your jobs and roles.

Kozuch: I founded Future Media Concepts in 1994 together with Jeff Rothberg the other co-founder. I am involved in the operation of the company as President together with Jeff Rothberg. Future Media Concepts is based in New York and is a company that provides training for the digital media field. We celebrated our 20th anniversary since the foundation of our company this year.

We have two types of training styles. The first is the method of holding intensive hands-on courses over three days, typically, with small groups of people in our seven training locations across the U.S. FMC is an Authorized Training Center for Apple, Avid, Adobe and Autodesk and offers authorized courses on all these softwares.

The other training style is training conferences at industry trade shows such as NAB or InterBEE.

The largest event for us is the NAB Show that is held in Las Vegas every year in April. We have entered a partnership with the NAB and it has been ten years since we first conference was held at NAB. The scale of this event increases every year. At the time of the event in 2013, we reserved 13 training halls and held more than 200 sessions over five days. There were more than 1,100 participants at these sessions.

Greenberg: I am one of the instructors of Future Media Concepts. I also work on an event called "The Editor's Retreat". I have previously been involved in movie production. However, my father became ill and I left my job because of my irregular lifestyle in order to continue take care of my father who became ill. Instead of that job, I decided I wanted to work in an industry where I could teach the knowledge that I had built up by being involved in movie production over the years. I have achieved this desire and am doing well with this line of work.

Richard and I have Master Instructor qualifications. Master Instructor means that we are in charge of training other instructors from Adobe, Apple and Avid. We also put in our opinions about each of these tools.

Harrington: I worked as a director of a news program in a broadcasting station. After working for a short time in the news program I became engaged in work to promote information dissemination and training communication by making full use of media and digital tools at an NPO related to health. I was brought up in an environment with a family who were all educators. My wife also works in education. Under such circumstances, Ben proposed to me that I should take to the stage at conferences around 13-14 years ago and that is what I have continued to do so until the present day. Nowadays, I would like to help people with the knowledge I have gained over many years.

Careful selection of four themes “for better video making”

Q. The two of you both selected two themes respectively for this Inter BEE event. Mr. Greenberg chose video compression and color correction, while Mr. Harrington chose Adobe Premier Pro and camera tracking. With what aims did you choose these themes?

Greenberg: The themes I chose are about video compression technology and color correction. Video compression is something that is innovative with no formula to it.

Video compression is extremely difficult for editors and is something in a black box. Sometimes, I hear complaints from editors like “I press a button, but I don’t really understand what this does in actuality.”

Color correction is the same with editors using a number of tools. However, at the end of the day, they do not really understand the best way to use these tools. They finish their work with the feeling that what they have done seems to be attractive. However, even the people themselves do not know whether this is really a good result or not. I would like them to understand why that looks like a good result or why it does not. Video compression and color correction technology is knowledge that is necessary right at the beginning for video editors. Therefore, I think these two themes are very important and that is why I selected them.

Harrington: The first of the two sessions I am presenting are on Adobe Premier Pro. Premier Pro has been spreading to video editing at an accelerated pace over these past two years. However, it appears there are parts of it that are still difficult for editors to handle. Thus, I will first give an explanation from the correct start method to the key differences.

The second topic I will talk about is camera tracking. As you know, camera tracking automatically calculates the camera position at the time of video shooting by a computer. This makes it possible to insert things that did not actually exist at the time of shooting, such as text and logos, with it being possible to give an impression as if they were real. Moreover, it is possible to reduce camera shake for elements where a great deal of this occurs and so make it easier to watch, for example as in shooting with cameras set up on people who are skateboarding.

Q. What impression do you have of creators in Japan?

Greenberg: The people who are active in this field have enthusiasm and spoke passionately about their own craft. I really enjoyed listening to them.

In fact, ahead of time, I guessed there would be some subtle points of difference in creativity between different countries. We held discussions by trying to talk from a slightly different point of view. The result of this was that in the end we arrived at understanding without much difference.

Professional are professionals. They each have a history of taking on a variety of different challenges. Nevertheless, what is interesting is that enthusiastic professionals have an attitude of wanting to learn even more avidly. I have come into contact with people from various countries, but Japanese people have a really strong sensitivity; I have never met before a group with such eagerness to improve their skills. Therefore, I felt great pleasure as an instructor with the extreme enthusiasm of the students.

Harrington: I left with a deep impression from some of the questions I was asked when giving my presentation on the show floor at this event. I was asked some extremely clever questions.

I have been given a deep impression through contact with just a few Japanese people. For example, I look up to the director Akira Kurosawa in the world of film. I have seen most of the works of Kurosawa, but I especially like the *Seven Samurai*, *Red Beard and High and Low*. I was able to visit Japan where a director such as this was born and given the chance to come into contact with Japanese culture. This is an extremely valuable event in my life.

Our participation in this event and being able to meet all the people of Japan is an extremely significant and meaningful event for all of us. We are very happy to be here.

Q. Please tell us about your future expansion and plans.

Kozuch: The training sessions at Inter BEE this time was something that was really wonderful. However, in addition to this, I hope that creators in Japan also pay a visit to our training sessions at the NAB Show. The training sessions at this Inter BEE event were just some of the many we have available. The experience of the five days at the NAB Show is one that is extremely meaningful for creators. We hope to grow the Japan Post Production Conference in 2014 to more sessions and even higher attendance.

Japan Post Production Conference 2013

Venue : Conference Room 103, 1F, International Conference Hall, Makuhari Messe

Japanese/ English consecutive interpretation available

Free of charge

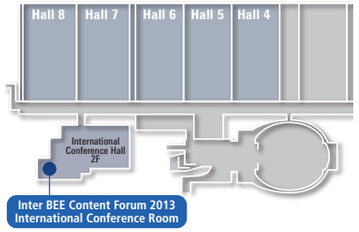
We offered the best selection of topics from all the program of the Post Production Conference at NAB Show 2013.

Session 1 10:00 ▼ 11:30	**“Get the Most from Adobe Premiere Pro CC”**	**Mr. Richard Harrington**
	Adobe Premiere Pro has gained wide adoption in the professional video world. While it offers several industry standard features, experienced editors need to rethink their approach to get the most from the application. Learned strategies to organize media and work with files natively. See how features like Adobe Dynamic Link and native graphic support improve the speed of your workflow. Learned how to use popular features like Dynamic Trimming, multi camera editing, and audio mixing.	Target audience: Editors and Motion Graphics professionals who wish to maximize their creativity and efficiency on creating projects in Premiere Pro
Session 2 12:40 ▼ 14:10	**“Great Video Compression for Video Professionals”**	**Mr. Jeff Greenberg**
	What could you do to get your distributed video to look better? What are the most important rules when it comes to video compression? This session covered the foundations of compression and gave practical techniques to help improve the final look of your video.	Target Audience: Every editor who struggles to understand compression and is involved in publishing media online
Session 3 14:20 ▼ 15:50	**“Tracking and Stabilizing Cameras”**	**Mr. Richard Harrington**
	In this session you would learn how to take better control of your footage for both high quality productions and accessible visual effects. Learned practical production techniques to use when you want a smooth and stable shot as well as how to establish tracking marks in a scene. You would also learn effective ways to stabilize footage in popular nonlinear editing and visual effects tools to get smoother footage like Smoothcam and the Warp Stabilizer. Finally, you would learn how to track an object versus tracking a camera. This data can then be used to insert objects or text into a scene for accurate compositing and a modern visual approach.	Target audience: editors and VFX professionals
Session 4 16:00 ▼ 17:30	**“Color Correction tips for every NLE”**	**Mr. Jeff Greenberg**
	Do you know the right order to adjust your color correction tools? Are you comfortable with all the scopes? Especially with the RGB Parade? Whichever editorial system you use, we'll cover the methods to help you achieve the best quality in your Color Correction. Attendees learned the key ingredients to perform primary grading on any editorial tool and will have a good grasp of using scopes.	Target Audience: Every editor who feels uneasy with their color correction knowledge if you don't know how to interpret the RGB parade, you should be in this class.

Organizer : Future Media Concepts Supported by : Inter BEE 2013 International Broadcast Equipment Exhibition In Association With: NABSHOW Supported by : Adobe

Inter BEE Content Forum 2013

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.

Keynote Speech

11.13 (Wed.)

11:00 ▶ 12:00

Strategy for advancement of broadcasting services

Mr. Toshiyuki Minami
Deputy Director-General of the Information and Communications Bureau

Special Session 1

11.13 (Wed.)

13:00 ▶ 14:30

How Loudness Control is Changing the World of Audio

Mr. Thomas Lund
CTO Broadcast & Production, TC Electronic A/S

Special Session 2

11.13 (Wed.)

Latest Trends in Video Delivery in the HTML5 Era

14:45 ▶ 16:05 Session 1

Commentary on "MPEG-DASH" Delivery Standards with HTTP

(Part 1)
MPEG-DASH
- The Background and Objectives

Mr. Hiroyuki Niwa
Director, Media Solutions Department, Multimedia Systems Business Unit, Digital Video & Systems Business Group, NTT Electronics Corporation

(Part 2)
Dynamic Adaptive Streaming over HTTP (MPEG-DASH)

Mr. Michael Luby
VP of Technology, Qualcomm

16:10 ▶ 16:45 Session 2

Example Applications of HTTP Video Delivery Technologies Gaining Attention

(Part 1)
Instant Video Clip Creation by Playlist Editing

Mr. Masaharu Takano
CEO, President, Bitmedia Inc.

(Part 2)
Independent Development Useful in the Video Analysis of Sports Performances

Mr. Chikara Miyaji
Deputy Director, Department of Sports Science, Japan Institute of Sports Science

11.13 (Wed.)

17:00 ▶ 18:15 Panel Discussion

Possibilities and Technical Challenges of Video Streaming in the HTML5 Era

Moderator

(c)Takanobu Kawatsu

Dr. Jun Murai
Dean and Professor, Faculty of Environment and Information Studies, Keio University

Panelists

"Hybridcast"
Mr. Masaru Takechi
Senior Research Engineer, Integrated Broadcast-Broadband Systems Research Division, Science and Technology Research Laboratories, NHK (Japan Broadcasting Corporation)

"JoinTV"
Mr. Kiyoyasu Ando
Programming Division, Nippon Television Network Corporation

"Multimedia Broadcasting Study Group"
Mr. Shin Hamaguchi
Assistant Manager, Strategy Planning Division, Mainichi Broadcasting System, Inc.

"Multimedia Broadcasting (V-Low)"
Mr. Naruhiko Nihira
Deputy Division Manager, Multimedia Broadcasting Development Div., TOKYO FM Broadcasting Co., Ltd.

Invited Session 1

11.14 (Thu.)

10:30 ▶ 11:30

Key business and technology developments in the broadcast and media industry

Mr. John Ive
Director of Business Development and Technology, IABM

Invited Session 2

11.15 (Fri.)

10:30 ▶ 12:00

Current SET moment and future vision for industry

Mr. Olimpio Jose Franco
President of SET

Digital TV in Brazil: Its Past, Present and Future

Mr. Fernando Bittencourt
General Director of Engineering Globo TV Network

Invited Session 3

11.15 (Fri.)

12:15 ▶ 13:00

An Optimized Storage Architecture for Live TV Workflow

Mr. Charles Sevior
CTO, EMC Isilon Asia Pacific and Japan Regional HQ

Visual Symposium

11.14 (Thu.)

13:00 ▶ 16:40

Current Situation of New Broadcasting Media Services and Future Development

-Expectation to the Content of Super Hi-vision (4k, 8k), Smart TV and Radio-

●MC

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

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

13:00 ▶ 15:30 Session 1 Presentation

(1)Toward "Broadcasting First Century"
- Expectations and Problems for 4K,8K and Smart TV Age -

Mr. keiya Motohashi
Executive Office of the Next Generation Television and Broadcasting Promotion Forum

(2)Concerning content production in super hi-vision (4K and 8K)

Mr. Takashi Isshiki
Executive Director, Drama Programs, Production Headquarters, NHK Enterprises, Inc.

(3)Why does NHK begin Hybridcast?

Mr. Tomohisa Kuwahara
Controller, Programming, Programming Department, Japan Broadcasting Corporation

(4)Changing Television Advertising in Multiscreen Broadcasting Services

Mr. Hidekazu Imatani
Deputy Director, Media Service / TV Division, Kansai Branch Dentsu, Inc.

(5)On Radio Services in Digital Age

Mr. Keishi Kandori
Chief, Media Center, radiko Co., Ltd.

16:00 ▶ 16:40 Session 2 Panel Discussion

Discussion about expectation toward Content of Super Hi-vision (4k, 8k) and Smart TV/Radio

Audio Symposium

11.14 (Thu.)

13:30 ▶ 16:40

Realities and Challenges in the First Year of Loudness Operations

●MC

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

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

13:30 ▶ 14:10

Have Loudness Operations Been Successful?

Mr. Hideo Irimajiri, Ph.D.
Specialist Manager, TV Operation Engineering Department,
Broadcasting Operations Division, Mainichi Broadcasting System, Inc.

11.15 (Fri.)

14:20 ▶ 15:00

Reconsidering the Meaning of "Mixing to Achieve a Target Loudness Value"

Mr. Hiroshi Noro
General Manager, Engineering Department, technicaland company limited

15:10 ▶ 15:50

Loudness and Mixing from the point of Post Production : Introducing Cases in Nagoya

Mr. Hiroki Sawada
Tokai Sound Co., Ltd.

16:00 ▶ 16:40

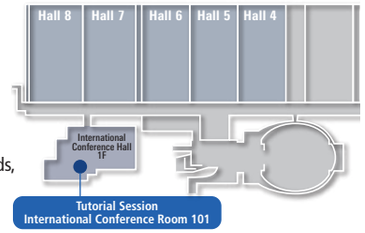
Current Situation of Loudness Meter Operation

Mr. Sadami Minamisawa
Sales Engineer, 1st Sales Department, TOYO Corporation

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-

Attendance Fee : 1 session ¥2,000 (Consumption Tax Included) , 2 sessions ¥3,000 (Consumption Tax Included)

11.14 (Thu.)

13:00 ▶14:30

Session A The method of high quality location audio recording with video camera or DSLR camera

1. The quality of picture has progressed with the miniaturization of cameras, but why has audio not as good?
2. Why is not possible to get good audio with microphones built into cameras?
3. What should be done about this? What is necessary for external input?

How to conduct interviews with pin microphones and important points in this
How to use wireless microphones
How to attach lapel microphones and countermeasures against noise
Joint use with simple boom microphones
Regular boom microphones and noise/windbreak measures
Convenient connections with accessories and miniature MIXER DSLR cameras if they are available
How to conveniently use noise removal plug-ins if there is post-production
Reference: Recording plan of Yasuo Hijikata

Freelance Sound Engineer / Member of the Motion Picture and Television Engineering, Society of Japan, Inc. **Mr. Yasuo Hijikata**

15:00 ▶16:30

Session B Practice and Formulation of File-based Work Flow System from the viewpoint of Post Production

Opportunities have been increasing every year for file-based media to be applied in the flow of video and audio production. On the other hand, there exists a work field where flow with a focus on tape media is the mainstream and the transition to files is yet to happen. Some workers are already using file-based media and others are expected to transition to files in the future, but this will be an organized commentary from the perspective of post-production in regards to points in the way of thinking in the operation and construction of file-based work flow systems in the future.

Post-production Workflow / System Design, Technology Research & Engineering Department, IMAGICA Corp. **Mr. Kazuya Kikuta**

Visual Session -Basic Knowledge for digital video creators-

Attendance Fee : 1 session ¥2,000 (Consumption Tax Included) , 2 sessions ¥3,000 (Consumption Tax Included)

11.15 (Fri.)

13:00 ▶14:30

Session C Basics of 4k Media -Now and Past of Digital Cinema 4k-

With already 20,000 screens across the world supporting 4K images, I will be introducing the events that led to the development of digital cinema standards as well as this technology's technical background. I will also give a detailed explanation of the technical problems relating to future 4K video production, distribution and display. My talk will particularly focus on the future of 4K media intermingled with actual examples of problems relating to the bit width of chrominance signals that make up video, subsampling, and contrast..

Member of Technical Committee, SMPTE **Mr. Ichiro Kawakami**

15:00 ▶16:30

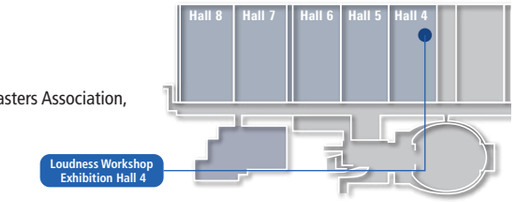
Session D Production and Examples of HTML5 Content from the Start

This presentation aims to explain the basics of HTML5 so that you will be able to create a web page that complies with HTML5.
We will learn by creating a simple web page with newly added elements. In the first half of the presentation, I will introduce the basics of HTML5 and simply explain the differences between HTML4 and HTML5.
In the second half of the presentation, I will introduce how to create a simple web page by using newly-added elements.

Principal Engineer, Systems Development, Department, Asking Company Limited **Mr. Marlon Tamayo Nangpi**

Loudness Workshop

Venue : Exhibition Hall 4, Makuhari Messe
Support : Association of Radio Industries and Businesses, The Japan Commercial Broadcasters Association, CM Surround Study Group
Cooperation : Japan Electronics Show Association



The reality and problems of managing engineering level at the production site

Around one year has elapsed since the loudness operation got underway. What has changed at audio production sites? Have there been any problems at the production sites? Has the feeling of sound volume been corrected? The actual status is reported by on-site engineers for live broadcasts, programs and CM. The information was transmitted to share know-how and problems of loudness held by each individual and target higher-quality audio production.

Session 1 Basics of Loudness

What is loudness? An introduction to loudness that provides an easily understandable explanation of its origins, purposes and technical contents of which you must be aware, including actual demonstrations.

Lecturer : Mr. Hiroyuki Murakoshi (IMAGICA Corp)

Session 2 Actual Loudness 1 "Live broadcast"

How loudness is managed at live broadcast sites such as sports broadcast, music programs, chat and variety shows, etc.? Discuss fresh know-how by site engineers.

Lecturer : Mr. Eiichi Matsunaga (Fuji Television Network) Mr. Yasuo Iijima (Technomax) Mr. Hiroshi Nakamura (WOWOW) Mr. Hideaki Shimizu (NipponTelevision Network)

Session 3 Actual Loudness 2 "TV Program"

Focusing on programs involving MA operation in post-production, especially long programs such as TV specials, etc., where a combination of know-how conforming to loudness regulations and the reality are explored.

Lecturer : Mr. Yutaka Hamada Mr. Masanobu Iimori (Tokyo Sound Production)

Session 4 Actual Loudness 3 "CM"

Commercials where information is condensed and summarized and maximum advertising impact is sought. How has the mixing of commercials changed after the introduction of loudness? The current situation and countermeasures are examined.

Lecturer : Mr. Hiroyuki Murakoshi (IMAGICA Corp)

Session 5 Panel Discussion "Loudness NOW"

Engineers engaged in live broadcasts, programs and commercial production discuss how to facilitate loudness from various perspectives.

Lecturer : Mr. Yoshiharu Ozawa (Tokyo Broadcasting System Television), Mr. Hideyuki Nagata (1991,inc), Instructors of session one to four

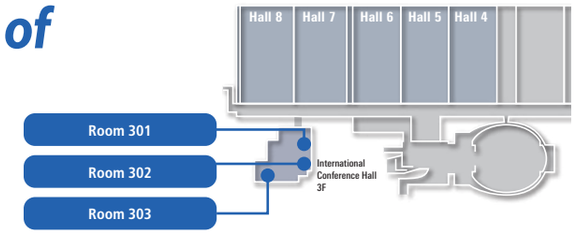
Time schedule

11.13 (Wed.)	11.14 (Thu.)	11.15 (Fri.)
11:00 ▶11:40 Session 1	11:00 ▶11:40 Session 1	11:00 ▶11:40 Session 3
14:30 ▶15:10 Session 2	13:00 ▶13:40 Session 2	11:50 ▶12:30 Session 4
15:20 ▶16:00 Session 3	14:00 ▶14:40 Session 3	
16:05 ▶16:45 Session 4	15:00 ▶15:40 Session 4	
16:50 ▶17:30 Session 5	16:00 ▶16:40 Session 5	

The 50th JBA Symposium of Broadcast Technology

Venue : 3F, International Conference Hall, Makuhari Messe
Sponsored by : The Japan Commercial Broadcasters Association

	Room 301	Room 302	Room 303
11.13 (Wed.)	10:30 ▶16:20 Broadcast Operation	10:30 ▶15:05 Sound Broadcasting / Audio 15:30 ▶16:20 Pictorial Image Technology	10:30 ▶14:15 Datacasting / Digital Service 14:40 ▶16:20 Information Technology / Network
11.14 (Thu.)	13:30 ▶16:00 ◆Special Program		11:00 ▶12:00 ◆Related Events
11.15 (Fri.)	10:55 ▶16:20 Production Engineering	10:30 ▶15:55 Transmission	10:30 ▶15:55 Network Linkage / Communication



Related Events

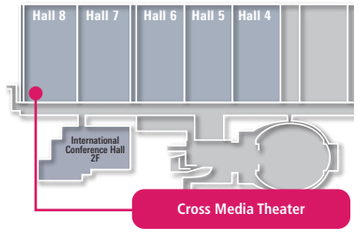
11.14 (Thu.) 11:00 ▶12:00 Venue : Room 303, International Conference Hall, Makuhari Messe
Revision of JBA Technical Standard T031

Special Program

11.14 (Thu.) 13:30 ▶16:00 Venue : Room 301, International Conference Hall, Makuhari Messe
Initiatives for the new shooting technology - Current status and outlook of 4K -

Cross Media Theater

Venue : Exhibition Hall 8, Makuhari Messe
Organizer : Japan Electronics Show Association(JESA)



11.13 (Wed.) 10:30 ▶12:00

V-LOW Digital Community Broadcasting Association & IPDC Forum Joint Project "Launching Olympic Radio for 2020"

Mr. Katsuya Watanabe
Deputy Director-General,
Ministry of Internal Affairs
and Communications
(in charge of the Information
and Communications Bureau)

Mr. Taro Kimura
President,
Community Simul Radio Alliance CSRA
Representative president, Zushi Hayama
Community Broadcasting Company

Prof. Ichiya Nakamura
Representative, IPDC Forum
Professor,
Graduate School of Media Design,
Keio University

11.13 (Wed.) 13:00 ▶17:30

Design Extreme Seminar (DEXS) at Inter BEE

For detailed report (Japanese Only) »» http://dexs-dexs.jp/

【Session 1】13:00-14:00

**"From Fukuoka to the world!
KOO-KI's Kan Eguchi talks about the International PR film for the Tokyo 2020 Olympic and Paralympics bid 'Tomorrow Begins' and the serial TV drama 'Mentai Piriri'"**

Mr. Kan Eguchi
Director
KOO-KI Co., Ltd.

【Session 2】14:30-15:30

**"How the serial TV drama 'Woman' was made!
Director Nobuo Mizuta and VFX Supervisor Issei Oda delve into the future form of TV drama"**

Mr. Nobuo Mizuta
Director
Nippon Television Network Corporation

Mr. Issei Oda
VFX Supervisor
Nice Day, Inc.

【Session 3】16:00-17:00

**"Creature Developer Keiji Yamaguchi comes from Hollywood to give a talk in Japan!
A commentary on the Guillermo del Toro directed movie 'Pacific Rim'"**

Mr. Keiji Yamaguchi
Creatures Developer
ILM

11.15 (Fri.) 13:00 ▶14:30

IPDC Forum Session
"The Current State of TV Viewing on Personal D vices (moreTV) and Its Future"

~ The American Broadcasting industry's counterattack to overwhelm the internet!
An introduction to the current state of their strategy to "have TV programs on every viewing device", new domestic initiatives and more~

"Explanation of aims (Why this theme is relevant now)"
Mr. Hidekazu Imatani (Deputy Director, Media Services/TV Division, Dentsu Inc. Kansai

"An introduction to leading examples occurring overseas"
Mr. Koji Suginuma (Instructor, Nihon University Industrial Engineering department /Editorial writer at Eizo Shimbun)
Mr. Yuuki Tanaka (Researcher, IPDC Forum)
"An introduction to leading initiatives taking place domestically"
Mr. Ayumu Yasuda (CEO, Garapon inc.)

Asia Contents Forum

Catching up on Asian VFX trends for the world! Starting with a talk on mass media in Malaysia which is at the forefront of the content business in Asia, we also cover Japanese cutting edge post production works as well as the hopes for Fukushima's recovery expressed through the historical drama 'Yae no Sakura' which go beyond the production. Also, we invited top creators from the VFX society VES from around the world starting with Hollywood and other VFX production artists to talk about the latest in VFX. And, similar to last year, there were also recruiting booths for CG and VFX studios set up.
We also held a Creator's Night with the aim of networking industry talent. We hoped to provide a forum that would be a plus to not just creators, but also to everyone in the film industry.

Mr. Takafumi Yuuki
Inter BEE Asia Contents Forum Director

11.14 (Thu.) 11:00 ▶12:00

"The Forefront of the Media Business in Asia"

"The Malaysian Content Landscape."
powered by TBS DigiCon6

Ms. Marini Ramlan
HEAD, CONTENT INNOVATION PRIMEWORKS STUDIOS

11.14 (Thu.) 12:30 ▶13:30

"Visual Effects Society"

Ms. Rita Cahill
International Outreach Officer, Visual Effects Society (VES)

11.14 (Thu.) 14:00 ▶15:30

VFX "Now and Future"
"Method Studios x Double Negative"

Mr. Jason Schugardt
VFX Supervisor, Method Studios

Mr. Stuart Farley
Head of 3D,
Double Negative Singapore

11.14 (Thu.) 16:00 ▶17:30

"Japan Post Production Association (JPPA) Members' Featured Works and their Making of"

(1)"Solutions for creating high resolution spherical video":
OMNIBUS JAPAN INC.
Mr. Kazuhiro Imamura
Mr. Shin-ichi Yamamoto

(2)"Image simulation based on real time rendering and HMD":
DIGITAL GARDEN INC.
Mr. Kazuya Takahashi CGI Producer, CGI Dept.
Mr. Tatsushi Kumomi CGI Designer, CGI Dept.

(3)"VFX movie production by unifying the color space after heterogenous camera filming":
McRAY Corporation
Mr. Shunyo Kumakura
Mr. Takahito Kurobe
Mr. Daisuke Maeda

11.15 (Fri.) 10:30 ▶12:00

"Fukushima 'Yae no Sakura Project' ~Hopes for the Recovery of the Tohoku area"

Mr. Shinsuke Naito
Production center (drama program) chief,
Production #2
Japan Broadcasting Corporation (NHK)

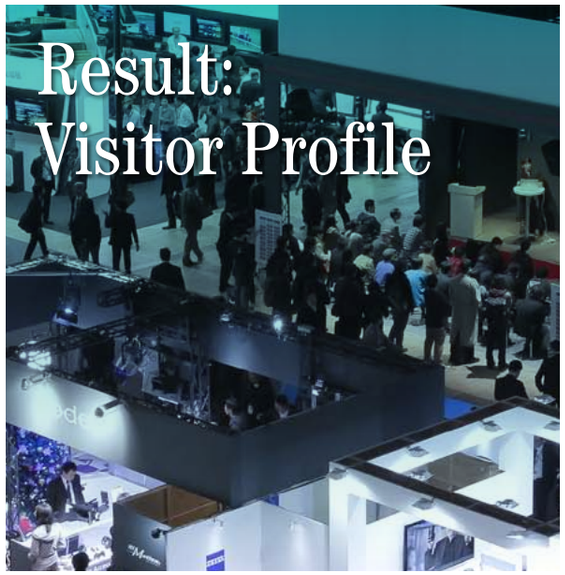
Ms. Akemi Sugeyama
Director of Business Development,
Planning and Development Center
NHK Enterprises, Inc.

Mr. Tadashi Egawa
"Yae-no Sakura"
Project Team Head
Aizu-Wakamatsu city

Production & Creator's Night at Inter BEE 2013

11.14 (Thu.) 17:30 ▶19:00 Exhibition Hall 8, Makuhari Messe

To give people a chance to familiarize themselves with not only video equipment but also the latest video works themselves, we held the Production & Creator's Night, a networking party with digital CG/VFX creators in cooperation with people from CG/VFX production who represent Japan.



Result: Visitor Profile

◆Breakdown of registered visitor number

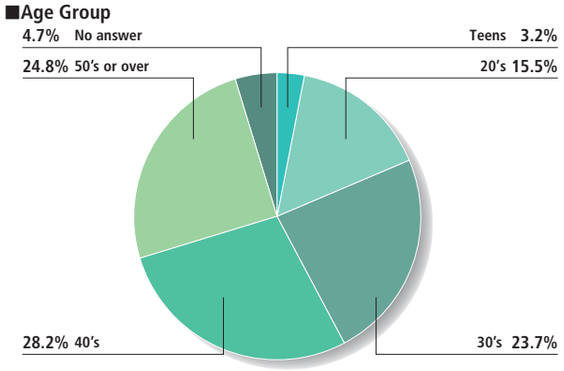
	11.13 (Wed.)	11.14 (Thu.)	11.15 (Fri.)	TOTAL
Domestic	*10,303*	*10,297*	*10,483*	*31,083*
Overseas	*603*	*222*	*71*	*896*
TOTAL	*10,906*	*10,519*	*10,554*	*31,979*

◆Breakdown of registered visitors

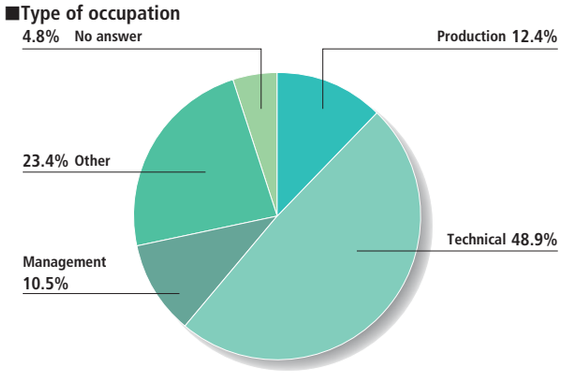
Area	Number of countries & region / Number of visitors	Breakdown of visitors by country & region
Domestic	1 country / 31,083	Japan 31,083
Asia	12 countries & region / 729	Korea 418 / Taiwan 75 / Thailand 71 / China 58 / Indonesia 36 / Singapore 27 / Hong Kong 20 / Philippines 10 / India 5 / Malaysia 5 / Sri Lanka 3 / Pakistan 1
North, Central and South America	5 countries / 86	U.S.A. 73 / Canada 1 / Brazil 10 / Peru 1 / Paraguay 1 /
Europe	10 countries / 42	United Kingdom 14 / France 7 / Germany 5 / Norway 5 / Sweden 2 / The Netherland 2 / Italy 2 / Portugal 2 / Esthonia 2 / Austria 1
Middle East / Africa	6 countries / 10	Israel 2 / UAE 2 / Libya 2 / Nigeria 2 / Congo 1 / Egypt 1
Oceania	1 countries / 8	Australia / 8
Unknown		21
	35 countries/ regions	31,979

◆Visitor demography

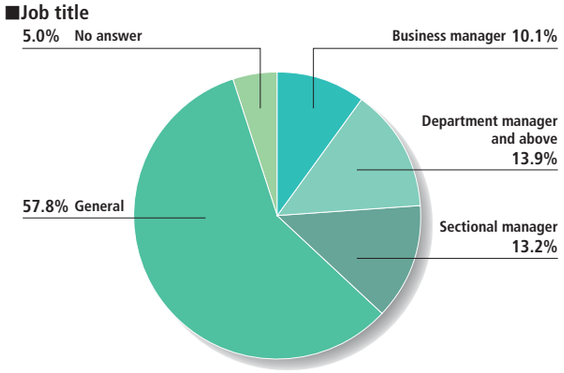
■Age Group



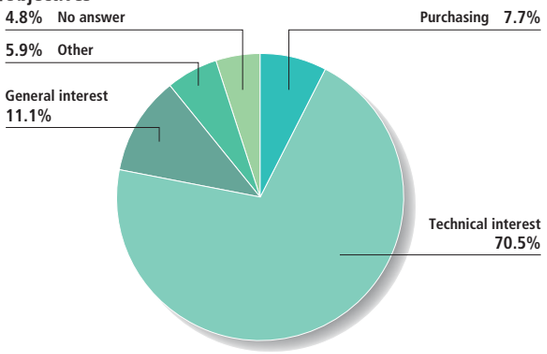
■Type of occupation



■Job title



■Objectives



■Type of Business

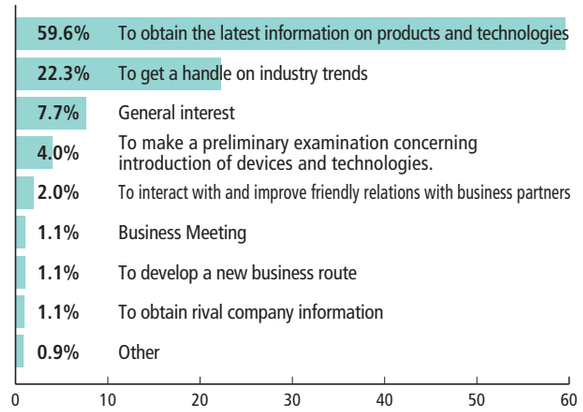
Equipment Manufacture	13.6%	Related Staging, Art and Lighting	2.6%
Commercial TV Broadcaster	8.9%	Related Contents Publishers	2.6%
Trading Company	8.9%	Related CATV	2.4%
Post production	7.9%	Related Internet Business	2.2%
Student	7.2%	Facilities and Stores	1.6%
Other	5.9%	Government office, Organization	1.6%
Video Software Production Company	5.5%	Film and Video Production Company	1.2%
Other User	5.4%	Ad Agency	1.0%
Production House	4.6%	Content Delivery Network	0.9%
Related PA Equipment	3.8%	Radio Station	0.8%
State-run Broadcasting Station	3.1%	Recording Company	0.7%
Telecommunications Carrier	2.9%	No Answer	4.6%

■Interest (Multiple answers accepted)

Video Equipment	52.9%	Output System	8.2%
Audio Equipment	32.4%	Digital Cinema	8.0%
Camera	26.1%	Multimedia System	7.9%
Editing and Production Equipment	20.5%	Transmission Systems	7.9%
Electronic Display	15.4%	Stand-by and Peripheral Products	7.4%
Mixer	12.0%	IPTV	7.2%
Speaker	10.9%	3D	6.5%
Software	10.8%	Mobile TV	5.9%
VTRs, Memory Cards, Optical Disks	10.7%	Measuring Equipment	5.8%
Microphone	10.6%	Production Management Systems	4.1%
Servers, Storage	10.2%	Electronic Power Unit	3.5%
Relay System	10.0%	Art and staging	3.4%
Digital Signage	9.0%	Other	2.1%
Digital Contents	8.8%	No Answer	4.8%
Lighting Equipment	8.4%		

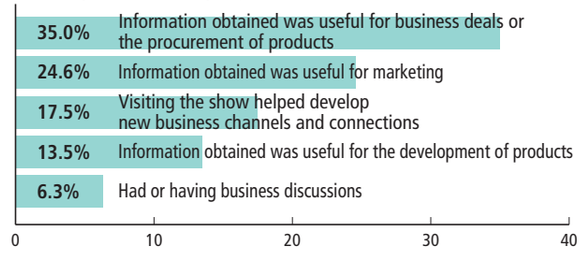
Visitor Questionnaire result

◆What was your goal in coming to "Inter BEE 2013"?

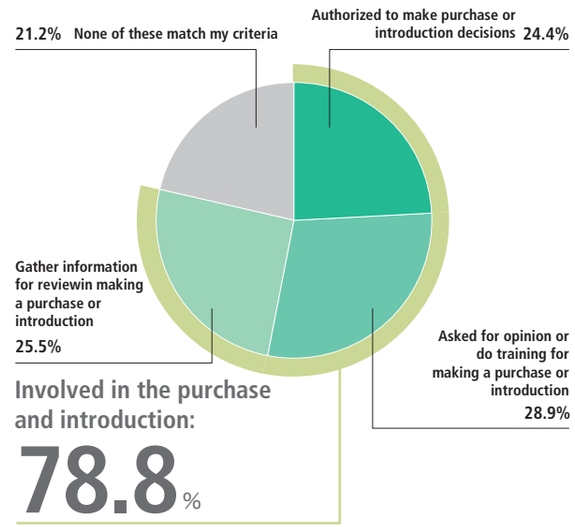


◆Was your visit to Inter BEE 2013 valuable?

(Multiple answers accepted)

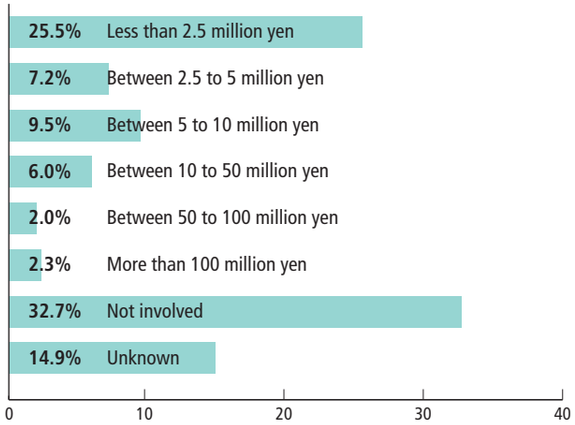


◆To what degree are you involved in the process of purchasing products/services in your company?

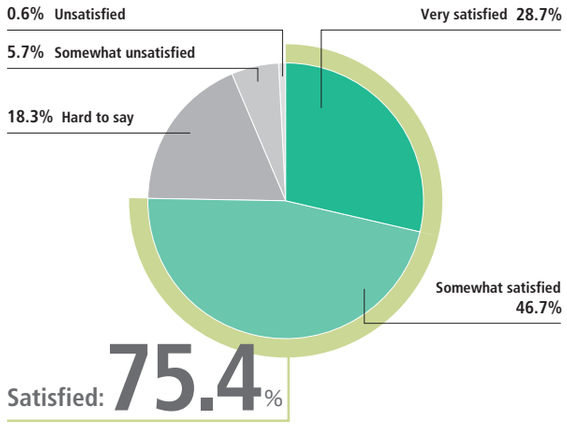


Visitor Questionnaire result

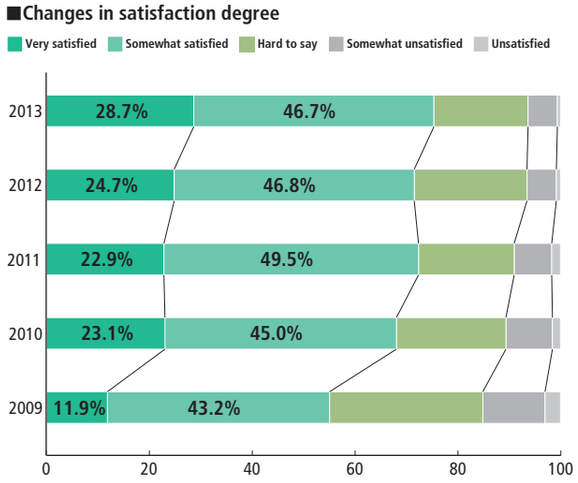
◆How much is annual budget you are involved in the process of purchasing products/services?



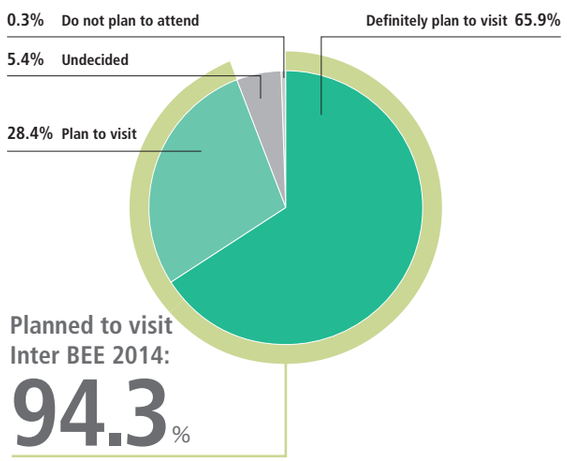
◆How satisfied are you with Inter BEE 2013

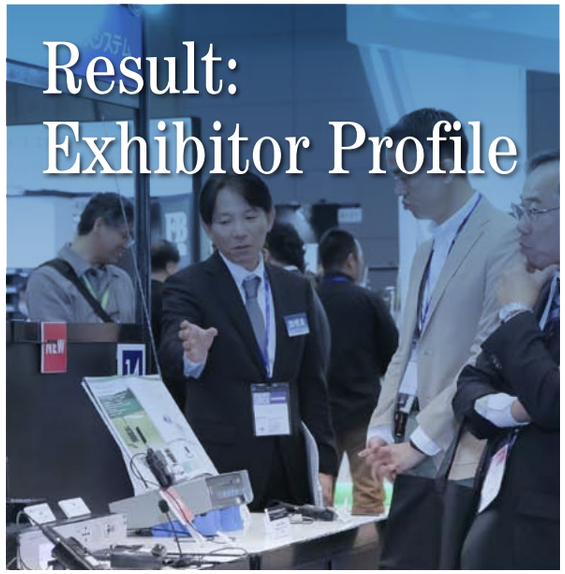


■Changes in satisfaction degree



◆Do you plan to visit Inter BEE 2014?





■Number of exhibitors

Exhibition category	No. of exhibitors	No. of booth
Professional Audio Equipment	337	278
Professional Lighting Equipment	16	19
Video and Broadcast Equipment	503	1,112
Cross Media	62	82
Total	918	1,491

Exhibitors:

918 companies (Record-high)

■Breakdown of exhibitors

Area	Number of countries / region Number of exhibitors	Breakdown of exhibitors by country & region
Domestic	1 country / 382	Japan 382
Asia	6 countries and regions / 77	Korea 28 / China 22 / Taiwan 16 / Hong Kong 4 / India 4 / Singapore 3
The North, Central & South America	3 countries / 205	America 186 / Canada 16 / Brazil 3
Oceania	2 countries / 19	Australia 18 / New Zealand 1
The Middle East	2 countries / 10	Israel 9 / Turkey 1
Europe	17 countries / 225	United Kingdom 75 / Germany 58 / France 15 / The Netherlands 14 / Italy 12 / Switzerland 9 / Sweden 8 / Spain 8 / Denmark 7 / Norway 5 / Belgium 5 / Austria 3 / Finland 2 / Hungary 1 / Bulgaria 1 / Portugal 1 / Lichtenstein 1
	31 countries and regions	914

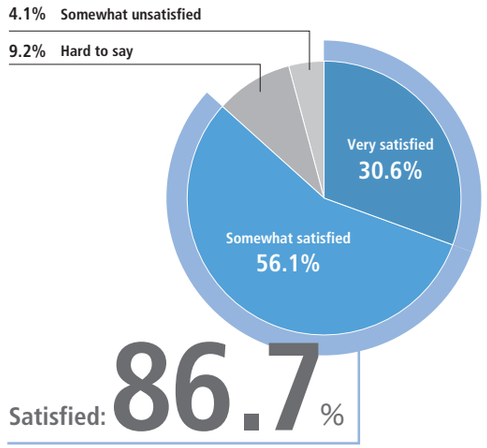
No. of overseas exhibitors:

536 companies (Record-high)

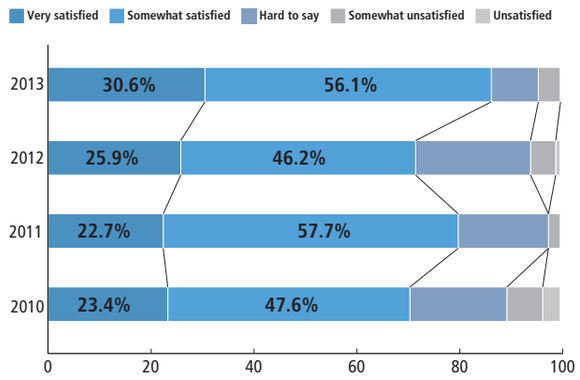
Exhibitor Questionnaire result

◆What were your main objectives for exhibiting at Inter BEE 2013? (Multiple answers accepted)

◆How satisfied to accomplish your goal?



■Changes in satisfaction degree



Result: Publication and Promotion

1. Publicity activities (actual distribution of press releases)

Notification of start of exhibitor recruiting (2/28)
Notification of start of pre-admission registration (8/12)
Attracting interviewers (11/5)
Information announcing the event (11/12)
Set up press room (11/13-15)
Reported completion (11/15)

2. News Media Representative

324 people

3. Number of articles in the printed media

	No. of articles
Before the show	**92**
During the show	**27**
After the show	**24**
Total	**143**

※as of 2014.1.20

4. Newspapers and Magazines Articles in Japan

Automation Review	Nikkan Kogyo Shimbun
B-maga	Nikkei Sangyo Shimbun
Broadcast Engineering	Nikkei Shimbun
COMMERCIAL PHOTO	OPTCOM
Dempa Shimbun	PRONEWS
Dempa Times	Senka21
DENKEI Shimbun	Tele-Cable Newspaper
Eizo Shimbun	Tsushin Kogyo Shimbun
Japan Metal Daily	VIDEO JOURNAL
Kaden Ryutsu Shimbun	VIDEO SALON
NEW MEDIA	Video Tsushin

5. On-air media

Japan	Chiba Television Broadcasting	NEWS Chiba
	Fuji Television Network	New Weekly Fuji Remarks
Europe	LCI (La Chaîne Info)	Plein Ecran
Asia	Phoenix Television	Trendy Guide

6. List of publication (Domestic)

Broadcast Engineering
CG World & Digital Video
Dempa Shimbun
Dempa Times
Eizo Shimbun
Full Digital Innovation (FDI)
Hoso Journal
House Organ of Japan Post Production Association
MJ
Motion Picture and Television Engineering
NEW MEDIA
Nikkei Sangyo Shimbun
PRO SOUND
Sound and Recording Magazine
Stage Sound Journal
Telecommunication
Video Journal
Video Salon

7. List of publication (Overseas)

ABU Technical Review
Asia Pacific Broadcasting
AV Specialist
bc.tech-ex
BIRTV Daily News
Broadcast Engineering
Broadcast India
Broadcast & Production
Broadcasting Equipment & Technology
IBC Daily
PA (Pro Audio)
Panorama Audiovisual Brazil
Set Magazine
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.

Approx. **73,000** ※The number of data instances that can be distributed

9. Inter BEE Official Website

◆Page views: **146,442** views (an increase of **106**% from the previous year)
(From November 1st to November 30th)

The Inter BEE Online Magazine helps people catch up instantly on the latest information from Inter BEE exhibitors, such as related events and the latest industry news all year round.

Number of articles posted before the show **48**
Number of articles posted during the show **121**
Video clips posted from the show (Inter BEE TV) **59**

10. Official Facebook

◆Number of Likes received post conference:
2,420 Likes (an increase of **191**% from the previous year)

◆Number of page transfers from the Facebook page to the Official Website:
15,757 (an increase of **386**% from the previous year)

11. Official Twitter

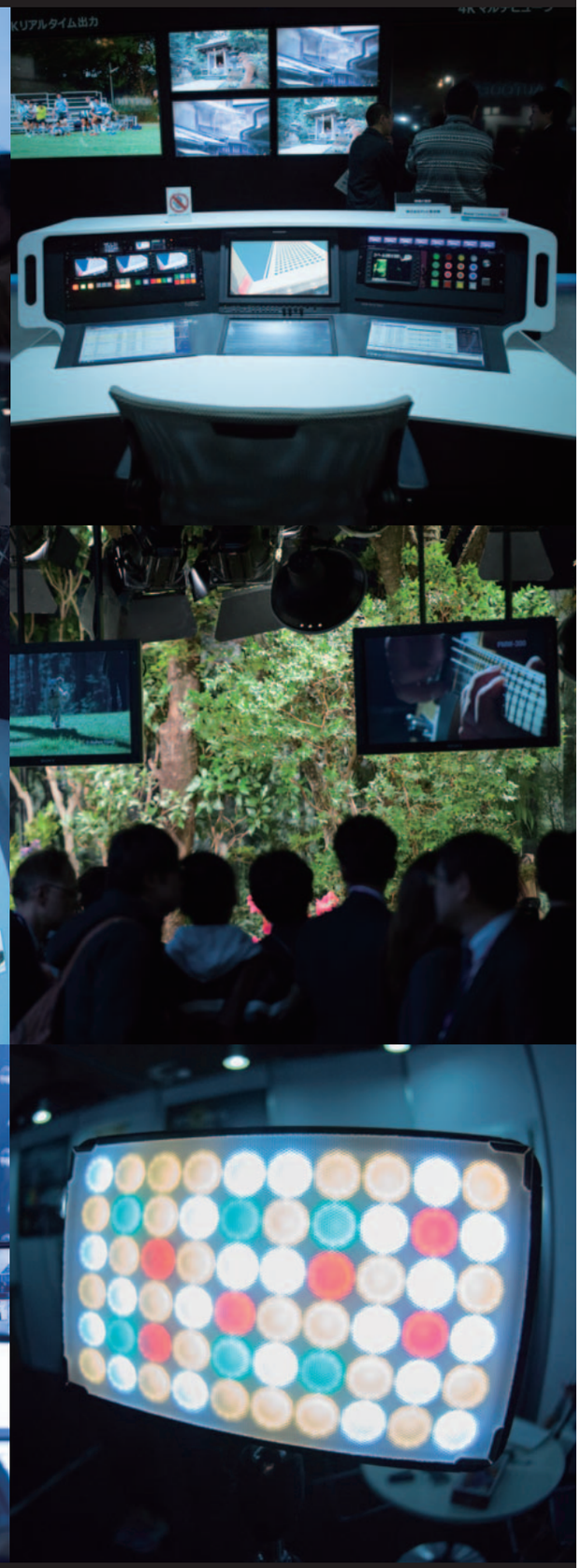
◆Number of Twitter Followers (at max):
340 followers (an increase of **252**% from the previous year)

◆Number of tweets related to Inter BEE:
4,610 tweets

*Tweets including the keyword "Inter BEE" in either English or Japanese (katakana)

12. Media partners

Related industry journals and magazines helped support Inter BEE as media partners, graciously publishing many articles on the exhibitors.



50th ANNIVERSARY

Inter BEE 2014

International Broadcast Equipment Exhibition

11.19 Wed. ⋙ 21 Fri. at Makuhari Messe, TOKYO

We are happy to announce that this year marks the 50th anniversary of Inter BEE, which has been held each year since the inaugural event in 1965.

Inter BEE, which has progressed alongside broadcasting history, is an opportunity for technological presentations and information exchange supported by the efforts of previous exhibitors in striving for continuous technological innovation and the end results, as well as users' passion for video and audio production. We would like to express our heartfelt gratitude for all your support to date.

We will continuously endeavor to ensure Inter BEE remains beneficial and with a strong presence, where innovations created by exhibitors are introduced to many users, and sent out widely to the world.

We would like to successfully hold this memorable 50th edition with you all as an opportunity to progress to the next step and boost the further development of the media industry.
Your continued patronage is much appreciated.

Japan Electronics and Information Technology Industries Association
Japan Electronics Show Association

*REVIEW for 2011 and 2012 are also available on website.

■**Administration/Inquiries: Japan Electronics Show Association**
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