



Weisscam HS-2 – a story of success

Edition No 3

Welcome

Dear Friends,

Back in 2005 a German DoP named Stefan Weiss developed a high-speed digital camera with specifications that had never been seen in a digital camera before.

With the help of P+S Technik Weiss performed the construction of a advanced model which was ready for serial production – the WEISSCAM HS-1. Although it was already still dependent on lots of infrastructure the camera was awarded several times and quickly gained many friends amongst camera operators, directors and producers – who mainly used it for TV-productions and commercials where cameras with high-speed abilities are often demanded and where the necessary infrastructure can easily be provided.

Today – four years later the WEISSCAM HS-2 and its family of accessories have evolved.

It's state of the art and representing a quantum leap in camera engineering.

As a stand-alone-solution the new WEISSCAM HS-2 comes with a completely new design, a family of accessories of which the new Digital Magazine DM2, the Hand Unit or the new DeBayer Box are only the most important ones. The WEISSCAM HS-2 features many new outstanding characteristics that put one thing into focus: unconditional usability and reliability at high and normal speeds.

It's the first digital high-speed camera which is also suitable for daily use under even the roughest conditions. Neither the hot humid and dusty environments on wildlife shooting missions in Tanzania, nor the extreme cold during sport events in the snowy Swiss Mountains could prevent the camera from doing its job.

The HS-2 has been tested by DoPs around the world. The breathtaking results can be seen at this year's IBC in Amsterdam.

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WEISSCAM HS-2 – Set Report



For the normal speed shots we used a Sony PDW-700 but only the WEISSCAM HS-2 could catch these impressive highspeed shots with it we got some sensational shots of crocodiles snapping after gnus, which were shooting with 1.000 fps. It was very impressive how often the gnus could escape quite acrobatically. Never before these quick movements could be recorded.



Serengeti Wildlife in Slow Motion

Text: Ivo Nörenberg

Right away after P+S Technik delivered me the WEISSCAM HS-2 I employed under the toughest conditions the WEISSCAM HS-2 in Tanzania (Africa) for the wildlife movie about the Serengeti and in Finland for the NDR/Parthenon production „Wild Scandinavia“. Even the strong vibrations of African bumpy tracks, the amount of dust or the humidity could not cause the WEISSCAM HS-2 any damage.

possibility to play out the footage at once using an HD-SDI recorder, has simplified our workflow. We did not lose time anymore to convert Raw Files and we could again review the footage immediately in the evening, unhurriedly. Only having one generator in the African steppe and working days are long, every our is valuable.



Facing some problems during the Finland shot, the camera worked properly after a software update in Tanzania. In spite of a temperature warning the WEISSCAM HS-2 had no break downs other than my BBC colleague who could have „roasted some fried eggs“ on his Photron in the meantime. The

At one close up shot we reached even 2.000 fps where the crocodile seemed to be frozen and remained in the air. The 32 GB data storage was very helpful. At a speed of 1.000 fps, 12 sec of recording is possible. It is perfect to accelerate the beginning of the scene and to slow down to real-time at the decisive moment. The surprise effect was even bigger. Due to the Hand Unit I could regulate the speed at anytime.

The camera was put up and also dismantled very quickly, important to us, because of our frequent changes of hiding in which we always had to be ready for action whenever a new situation occurs. No more notebooks no waiting time for operating system. „Serengeti“ will be screened in cinemas by next year and later be broadcasted by German TV channel ARD. Our next project will start in September when we will go to Kenia to „hunt“ Gepards.

I am always glad that P+S Technik is open for specific technical wishes. The service is friendly and fast an advantage of smaller companies. Special thanks to Stefan Weiss and Aki Schirmer for the great support.



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WEISSCAM HS-2 – Interview



Travel Destination: Hinterzarten/ Schwarzwald

Interview mit Tetsuji Inoue, Senior Cameraman, Technical Operations & Engineering Center, NHK, Tokyo :

Mr. Inoue, why did you decide for the WEISSCAM HS-2?

T. Inoue: First, the WEISSCAM HS-2 is the only camera in the market, which is able to shoot 2000 as well as 4000 frames per second. For 2010 NHK is pl-

anning to probably replace their ARRI 435 cameras and is changing from film to HD. As a multi purpose camera the WEISSCAM HS-2 is one of the possible candidates for this replacement, because we can implement the system into our HD workflow very easily.

What do you like on the camera?

T. Inoue: The camera is very easily to

operate. It is a big advantage that you don't have any computer or laptop with you. And the image quality is very good, of course.

What do you mainly use the camera for?

T. Inoue: At the moment we are shooting sport events, mostly. Especially figure-skating, ski-jumping and track and field athletics like the high-jump.

What are your plans for your next shooting?

T. Inoue: We are scheduled for the figure-skating in Poitiers in France to shoot Stefan Juver, followed by ski-jumping in Innsbruck.

How do you like P+S Technik in general?

T. Inoue: P+S is manufacturing user friendly products. The decision for the WEISSCAM HS-2 and against the competition was the aspect of set friendly, uncomplicated and really fast workflow. ■

WEISSCAM HS-2 – Rental News



WEISSCAM HS-2 at MBF Rental

Matthias Uhlig, of MBF Filmtechnik Hamburg describes his experiences with the new WEISSCAM HS-2:

"For a rental company, getting a new camera system is like getting a baby, with a few minor differences, of course. At first, babies might be late by two or three weeks. The HS-2 was late about 4 months, lots of time for the camera rental crew (especially the men) to get even more excited. Every parent knows that finally the baby is born, you do not sleep much. When you are working with a cutting edge camera sys-

tem, you do not sleep much either. For one reason, because you are so excited about the new features and possibilities the camera offers. For another reason because you try to solve problems, make up workflows, solder accessory cables, convert file formats, shoot tests and hope the camera will make it through the shot.

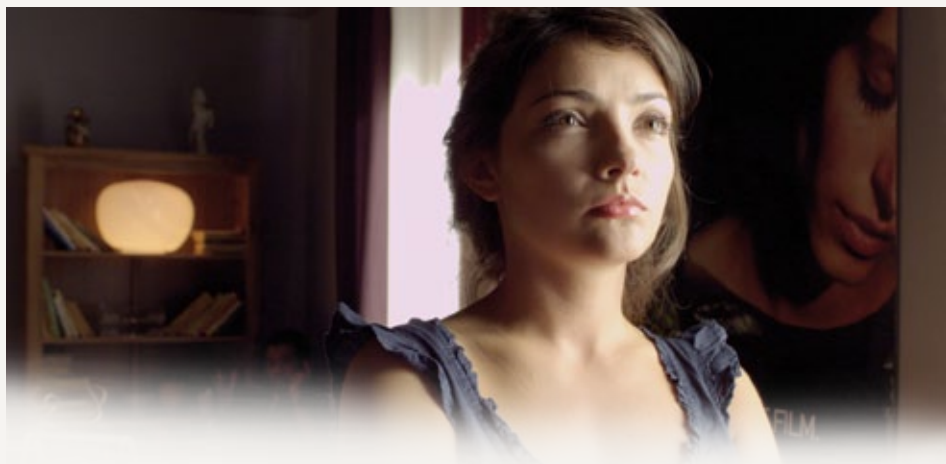
There have been only a few days between the delivery of our WEISSCAM HS-2 and the first shot up in the snowy Swiss mountains. Just enough time to train our staff and freelance operators. The last software update made the night before shooting, Operator Carsten Pieck took the camera to Switzerland for the first commercial job on the HS-2 ever. Apart from a few minor bugs, everything went great. The camera ran very stable and the images were plain beautiful.

Shortly after, on a hot sunny roof in Madrid, Spain the camera had to master extreme hot conditions. Again, no

problem at all, even though operator Martin Bethge reported later that "the camera was cooking". Now, after about 15 projects with the HS-2, the overall performance of the camera can be described as very reliable. But in the end, the only thing, that really matters, is image quality. The images of the HS-2 are very convincing, not only to us but, even more important, to our customers.

As important as it is for parents to rely on friends and family during the sleepless first months, it is important for a rental house to have a reliable partner and, even better, the mobile telephone number of the camera-developer. We had both. Aki Schirmer and Silvio Liberatore of P+S Technik were a big help during the first weeks, as well as Stefan Weiss and Frank Pellak of WEISSCAM, who always tried to find answers to our endless questions, suggestions and complaints." ■

www.mbf.de



SI-2K Shows Excellent Results in Masterclass

The young Romanian Society of Cinematographers organized the first masterclass titled “digital vs. filmstock – the good old dilemma” at the premises of the film school in Bukarest. In this context, a comparative test-shooting on both popular film and digital cameras was conducted: Arriflex 435, Arri D-21 and SI-2K Digital Cinema Camera System. Professional attendees have been inspired by the quality of the digitally-filmed content: „The image quality compared to film is really amazing”, said Jean-Louis Vialard, AFC.

purpose to shoot three scenes with each of the three cameras under controlled but extreme lighting conditions: After the shooting, the postproduction house Abis Studio took care of the workflow.



Ivan Tonev (BAC) and Nigel Walters (BSC)

The film was processed and scanned, the material from the SI-2K was processed with Iridas software to create DPX-files out of the original CineForm-RAW files. The D-21 was used in HD record mode. The footage was loaded to a Lustre system for further color correction.

The morning of day 2 was a hands-on experience on the three cameras. In the afternoon of the second day the footage shot on day 1 in HD was screened without color correction.

The third day started with a very interesting grading session at Abis Studio. We graded the three scenes as good as possible and saw the pro’s and con’s of each system. Afterwards we had a screening of the footage of day 1, this time as print material (Arri Laser from Abis) in a cinema in Bukarest. The last part of the workshop consisted in a parallel screening of all the footages at the UNATC film school.

Here some statements from DoPs:

Jean-Louis Vialard (AFC):

„Especially the lightweight setup of the SI-2K is a real new tool for cinematographers, easy to use, with a large dynamic and an easy workflow to work with. With the new Silicon DVR software, it is a perfect tool for any demanding shooting condition. The image quality compared to film is really amazing.”



Josef Demian (RSC) and Rodrigo Gutierrez (BSC)

Ivan Tonev (BAC):

“The three cameras create a completely comparable and competitive image on 35 mm positive screening when they are used in their typical dynamic range. The lack of standardization for the digital screening could lead to a bigger deception than the objective problems. The three cameras possess a strong character and they are waiting to find their adequate story.”

While working on the set, there was opportunity for professionals and students to exchange knowledge and experience. ■



Arriflex D-21, Arriflex 435 and SI-2K on a dolly

The first day of the masterclass began with a presentation of the two digital cameras in a film school auditorium. Besides 50+ students and film school teachers the top Romanian DoPs were present, but also an interesting mix of experienced cinematographers such as: Josef Demian (RSC living and working in Australia), Ivan Tonev (Vicepresident of Imago, president of the Bulgarian BAC), Jean-Louis Vialard (AFC), Rodrigo Gutierrez (BSC) and Nigel Walters (BSC and president of Imago) and Sorin Dragoi (RSC, BVK).

The second half of the first day had the

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FAVA



60' COCA COLA TV COMMERCIAL

Text: Peter James, DoP

I was approached in June to shoot a Coca Cola 60 sec TV commercial by International director Ali Ali for the Middle East, which was to be filmed in Alexandria, Egypt. The script required a teenagers POV throughout, while he undertook various sports and activities, including cycling, quad biking, volleyball and jet skiing.



I realised the only possible route was to use a SI-2K Mini with a wide angle lens tethered to a 17" MB Pro laptop, which was used throughout the commercial.

For the jet ski scene, due to the harsh and violent vibrations, we decided to use a 13" MB Pro with a solid state memory card enclosed in a Pelicase, which would also act as a back up throughout the shoot.

I approached Patric Ralston at Fava Rental to see if he could help, and even though we only had a few days, he managed to engineer and prep a camera helmet rig, at extremely short notice. The commercial threw up a variety of challenges, but one of my main concerns was using a laptop and transferring large quantities of data (2k) in the extreme heat. The main problem we did encounter was break-up with the Ethernet cable and its connection into the laptop socket and occasionally overheating of the laptop.

Fortunately Andrew Trewartha (D.I.T.) and Graeme Campbell (Focus) mana-

ged to overcome this and keep everything running smoothly. (I understand that Patric has since remedied this, by commissioning a bespoke military style laptop, which addresses these problems). I was initially uncertain about recording straight to a laptop, and not having a viewfinder. But I soon adapted, and found it quick and extremely useful to be able to apply a look via the LUT and view instantly on the screen.

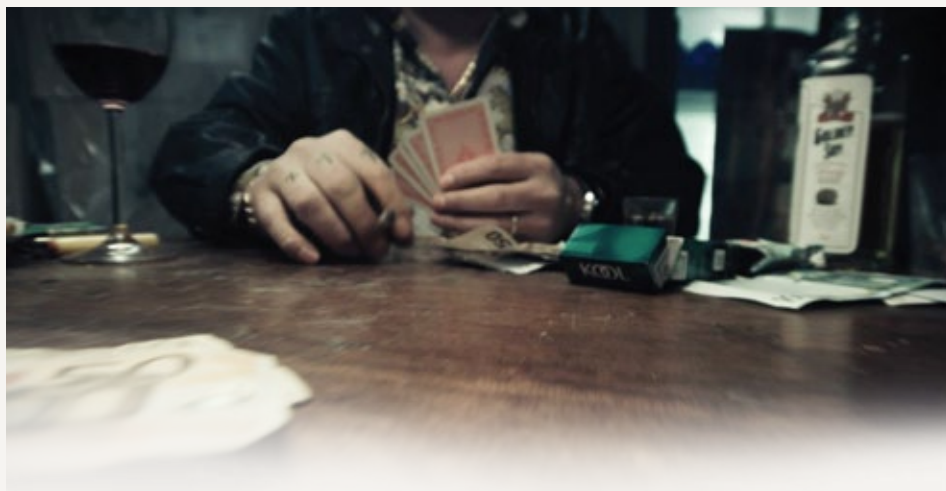
Having a film background, I was sceptical about using a 2/3" HD camera in these extremely harsh and contrasty lighting conditions, which included sunrise through to sunset, along with a difficult night club interior. Although this proved to be unfounded and I was very pleased with the way the SI-2K Mini handled these conditions.



We graded the material in London on the 'Revolution' system, and the director and I were extremely happy with the results and the overall look. In fact the telecine colourist even commented it was some of the best HD material he had seen, and even compared it to film!

I feel the SI-2K, especially the Mini, opens up a huge amount of creative opportunities that were not possible with conventional cameras, while producing high quality images. I would be interested to know if a full frame camera is being considered, as this would help give a more 'filmic' look with a 35mm depth of field.

I enjoyed working with the SI-2K Mini and hope to work with it again on future projects. ■



Following the Way of Money from a Banknote's Point of View

Text: Stefan Kochert, Cinematographer

First, I would like to thank P+S Technik. Without their great support, it wouldn't have been possible to make it to the big screen with a student-lead charity film project and to win the second prize at the Cannes 2009 Young Directors Award.



Der Weg des Geldes (engl. "The way of money") tells the story of a banknote on its way through the underbelly of life – „dirty money“ that passes through a cycle of snapping up rather than of giving. Ultimately, our banknote

manages to escape the underworld. Its tragic story concludes with a happy ending and with its use for a good purpose – a donation to a German child charity organization (Herzenswünsche e.V.). Director Tilman Braun and I quickly realized that we would have to try to keep the camera at short distance from our main protagonist, the banknote, in order to be able to convey its perspective on the world.

Over-shoulder shots or subjective shots taken from unusual perspectives were used to give the spot its distinctive visual appearance. To enhance the film's dynamics we used a body-mount system to film the hip of a lap dancer, as this allowed us to stay as close to the banknote as possible, for instance. In order to be able to realize these shots – e.g. the view out of a kiosk's cash register or the capturing of the quick ge-

stures of poker players – we needed a small and light camera that would give us maximum flexibility in camera positioning. Moreover, we needed a digital format that is suitable for cinema screens. The SI-2K offered all of this.



As our financial means were very limited I asked shoemakers and locksmiths to help with the development of constructions that would allow us to mount the camera head to various positions on the body, using a bulletproof vest, leather, carbon fibre rods, and laboratory bushings.



During the shooting, my favorite lenses were a Century 6mm and a Zeiss HS 9.5mm, which made the lighting of the shots and the hiding of the lamps very challenging for us. I was definitely surprised how well the camera reacted to night shots. Even shadows (4 to 5 stops under) still showed good details.

Without the SI-2K, the making of this spot wouldn't have been possible. ■

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The Gate To Innovation

3D Stereo Rig – Set Report



German Soccer in 3D

Text: Alaric Hamacher, Stereographer

One of Munich's famous soccer clubs, the „Spielvereinigung Unterhaching“, approached our company virtual experience to shoot a short 3D corporate movie about the main activities of the club.

We knew we would only have two short days to get the key managers and professional players outside of their intense training sessions to act in front of the 3D camera. So, we needed a fast, reliable and easy to handle solution.

As stereographer, I wanted to give the audience a very special feeling of 3D. The spectators should feel like they were among the players on the field. A sensation that can not be produced for TV-transmissions with tele lenses even in 3D.

The shooting preparation gave us the chance to wait for one of the most beautiful days of the year.



Alaric Hamacher, Stereographer
Dirk-Martin Heinzelmann, D.O.P

We would need a digital camera that was able to handle this huge contrast range. Our choice was therefore to use the new P+S Technik 3D Stereo Rig „Derobe“ in combination with two SI-2Ks. Having shot many 3D productions

with other stereo equipment, I was very curious about the reliability of the whole system, and especially how the two SI-2K cameras would work together. A special trigger box was necessary to get the two cameras in sync. This device showed good results even in stronger 3D slow motion shots.

From our experience in 3D, working with two laptops was out of the question. So we chose to combine two SI-2K bodies each with its own touch-screen. This gave DIT Maximilian Laufer all controls remote from the camera. Given his experience as an operator, he was easily able to remotely direct focus, histogram and all the other settings.



Alaric Hamacher, Stereographer Maximilian Laufer, D.I.T.

While DoP Dirk-Martin Heinzelmann used a simple video monitor attached to the 3D rig for framing, all 3D settings could be directly controlled via our custom setup on the touch-screen of the bodies.

Regarding postproduction, a true raw pipeline for editing is not in reach yet. Most of the editing is done in Final Cut. Our own software tools handle the management of metadata and 3D-parameters to the Conforming Software. 3D color grading on the raw files takes place like in our previous D-Cinema productions on an Iridas Framecyclor with direct output to the D-Cinema projector. The final result goes straight to DCP.

Together the SI-2K's 2/3" sensors, wide lenses and the light situation gave us a huge depth of field. The 3D Stereo Rig „Derobe“ proved to be reliable, easy to handle and appropriate for the shoot. ■

www.virtual-experience.de

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SI-2K goes to Kenya for BBC

Text: Mark Deeble, DoP

In April we found ourselves in the middle of an extraordinary drought in Tsavo West National Park in Kenya. It was the worst drought for decades and the parks iconic hippos at Mzima Springs were in a desperate situation - emaciated and with no food to eat for miles around. (We had filmed the hippos for two years in Mzima previously for the Emmy award-winning Mzima: Haunt of the Riverhorse http://www.deeble.myzen.co.uk/films_cat.php?filmId=2). We were in Tsavo filming for BBC1's WILDEST DREAMS, but had taken our SI-2K to field test for a forthcoming feature, DISTANT THUNDER. We had chosen the camera for a number of reasons...

1. We wanted to record RAW - when shooting wildlife, the main challenge can be actually filming the behaviour - often this is unpredictable or a 'once in a lifetime' opportunity. Then, the challenge is to cover the action well enough to build a convincing sequence. It is not a time when you want to be thinking about drop-down menus, white balancing, etc. only composition, focus, exposure. Shooting RAW, like shooting negative - allows us to make the adjustments later in the edit suite.

2. Form-factor - we were impressed by being able to use the SI-2K Mini camera head for remote filming - whether on the end of a job, out on the wing of

a plane, or hidden away next to a bird nest.

It is what makes the camera so versatile for wildlife film-making - nothing else comes as close.

3. Build quality - we looked at other RAW cameras, but were very impressed by the SI-2Ks build quality. When working in the bush in Africa, the camera needs to be rugged and dependable. We had previously owned Arriflex SR IIs, and thought the SI-2K comparable in build quality.

4. Lenses - we liked the IMS mount which meant we could use all our existing PL-, C-, Nikon F- and Canon-, Arri-bayonet mounted telephotos, and specialist micro and macro lenses.

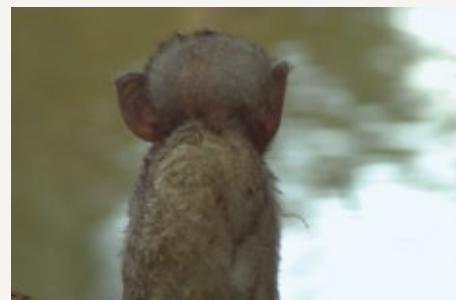
5. Data - we liked the thought of being able to back-up in the field and easily clone the data as many times as we needed. We have worked in tropical Africa for over 20 years and in that time had negative damaged by X-rays during shipping. On one occasion a major airline LOST three months worth of exposed negative.

6. Sensor size - use of a 2/3 inch sensor maintains the magnification factor and DOF we were used to with S16 - important when often the 'standard' lens for wildlife is a 300mm f2.8 prime. When the hippo situation got so des-

perate that they were dying, we were asked to film their plight for the BBC Natural History Units LIFE series - the follow-up to super-series PLANET EARTH.

As we hadn't anticipated a commissioned shoot and were just field-testing the camera, primarily for operation in the heat as this is an area we had found problematic with another RAW digital camera. We had a minimum set-up - camera, OLED finder, and Zeiss T2.4 12-120mm. We shot 1080/25p for integration with the series other HD footage, recording to the on-board hard-drive and backing up to a locally sourced 750 GB drive each evening. Because I couldn't move around in the blind and could not take my head from the camera viewfinder, I chose to mount a small USB track-pad on the pan-handle and use it to operate, review etc.

We used the camera mainly from a camouflaged blind at 40 deg Centigrade, just a few meters away from the hippos. I crept in at dawn, before the hippos got out of the water. It took 3-4 hours of silent waiting before they got too hot and left the water to wallow in the mud close to the hide. The SI-2K proved good in all respects for filming. We applied only a basic 5600K white-balance look.



We were very impressed by the cameras wide dynamic range - essential when shooting bright exteriors in Africa, especially as we had no filtration with us other than a sky / haze and a circular polarizer. It seemed to be able to look quite deep into the shadows without too much noise. It was especially good for the hippo skin tones which many HD cameras record as heavily magenta. Above all, I liked the look which I thought more filmic than HD. ■

Mini 35 Compact – New Versions



New MINI35 COMPACT for JVC GY-HM700 and PANASONIC HPX300 available

Since 2000 P+S Technik offers the MINI35 Image Converter and over the past years the device became a well-known and regularly use tool for DoPs and professional videographers. Constant research and development keeps the MINI35 Basic Unit and the pool of Connecting Kits and Accessories an up to date product family.

P+S Technik also offers the PRO35 Image Converter, bigger brother of the MINI35 which was presented in 2002 which as well rapidly found its way to become a widely spread and often used tool for professional videographers and DoPs. The spread of High Definition Television (HDTV) and so of a high resolution video standard turns digital film production for the big screen into a more and more widely accepted workflow. With the PRO35 you can work with the lenses, accessories and the depth of focus you know from cine film productions.

P+S Technik has expanded its MINI35 program with two new products:

Now we offer a MINI35 COMPACT for the JVC GY-HM700, as well as for the PANASONIC HPX300 series.

The MINI35 COMPACT allows you to connect the unit directly to the camera. This provides a minimal loss of light and gives you the most versatile image converter on the market, using the P+S Technik IMS system for a large variety of lens types.

The use of high quality components like the motors for the oscillation of the high end groundglass enables high shutter speeds with a minimum of noise. Also the lens part, the electronics and the housing are manufactured in the well known quality of P+S Technik products for professionals.

The variety of accessories you can choose from makes your set-up ready for all shooting situations.

For further information, please contact your local dealer (www.pstechnik.de/en/contact-reseller.php), or send your request to 35digital@pstechnik.de. ■

3D Stereo Rigs – Accessories



Stereoscopic Calculator

Calculate the appropriate 3D parameters exact and easy

The „Stereoscopic Calculator“ from Stereoscopic Technologies GmbH enables you to find the exact settings for your 3D Rig. Just enter in a few parameters (like distances in the set or the kind of lens you use) and it will calculate the exact settings of the interaxial (interocular) and the angulation (convergence).

Even the Standard Version offers several features like calculating the maximum allowed interaxial and adopt it to your needs as well as calculating the right angulation (convergence) if you shoot converged and not parallel. The size of the projection screen and the focal length are taken into account also it includes all important HD cameras and lenses with exact data.

The Stereoscopic Calculator is able to display the interaxial angle on the screen. It is ideal to save and load complete settings and to limit calculation to certain maximum screen parallaxes (separate input of positive and negative parallax).



Available through P+S Technik for Windows, MAC, Linux and handheld devices (iPone and Win CE planned). ■

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AATON®

P+S Technik and AATON partner to provide the ideal optical viewfinder solution for the newest high-end 35 mm camera Penelope

P+S Technik has brought its tremendous mechanical and optical experience and knowledge to AATON Penelope's optical viewfinder design and created a fully adjustable solution, which includes a 50/50 prism, left eye usability and eyesight adjustment. The special construction stops the possible light loss of optical viewfinders.

Even in the digital intermediate age AATON's Penelope is designed for, there's no better way to judge a shot than by eye through the taking objective. That's why AATON has teamed up with the optic experts from P+S Tech-

nik to provide an optical viewfinder for all situations and applications. The optical viewfinder's ergonomic shaping optimized by the "cat-on-the-shoulder" people is also appropriate for the optical viewfinder of the P+S Technik's SI-2K Digital Cinema Camera System utilizing it.

The optical viewfinder the Penelope sports with is extremely bright and sharp with generous peripheral coverage. Featuring left or right side viewing, fine adjustment of image's relative horizon and a diopter, of course, it is designed to be fully adjustable.

Penelope's optical viewfinder is equipped with a standard short eyepiece that can be used for handheld and tripod-mounted operation. The tension of the eyepiece swivel is adjustable, as well as the viewfinder's left/right lateral friction. Thanks to the common mini PL port the viewfinder is compatible with a wide range of eyepiece accessories. E.g. for more comfortable tripod and studio applications, a finder extension (280 mm) can be fitted between the finder arm and the short eyepiece. The eyepiece can be equipped with a heating system.

Incorporating innovative design, as well as an all-new optical viewfinder designed and manufactured by P+S Technik, Penelope is a versatile creative tool ideally suited to today's production realities. Enjoy the intense relationship between you and the scenery the wider, more dimensional feeling of an optical viewfinder provides!

P+S Technik has experience in the design and built of optical viewfinders for film and digital cinema cameras since 1992. In the past years optical viewfinder systems were designed and built for Arri and Moviecam cameras, Dalsa's Origin and Evuliton and the SI-2K Digital Cinema Camera. The latest application was for the Aaton's beautiful Penelope camera.



The champion of handheld cinematography, AATON made a name for itself with innovations which are now widespread in the film industry: in-camera time recording, Super16, and built-in video-assist. AATON is also known for the legendary sound of Cantar-X, the high end field digital audio recorder. ■

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Keane in the studio

P+S TECHNIK 3D Stereo Rig „Derobe“ Used for Live Broadcast of Keane’s Historic Live 3D Musical Performance

P+S Technik’s official reseller Inition applied their expertise and three 3D Stereo Rigs „Derobe“ to the groundbreaking production of the UK’s first successful broadcast of a live event in stereoscopic 3D TV to a domestic 3D TV set, via Sky’s satellite network and existing Sky+HD set-top boxes.

The gig of the band Keane, the first in music history to do a 3D show, took place on Thursday April 2nd 2009. Keane was playing a set from the legendary Abbey Road Studios in London. An anaglyph webcast was also shown on Keane-music.com where fans from around the world watched with 3D glasses. The production was run as a full multi-camera HD shoot.

The live 3D transmission involved a total of five 3D rigs including three 3D Stereo Rigs „Derobe“ from P+S Technik for close-up shots. Andy Millns from Inition provided all the kit: „On the three P+S Technik Stereo Rigs „Derobe“ we used Hitachi HVD 32 cameras, which are split block, Zeiss DigiPrimes and synchronous, two-camera follow focus units“, he explained.

Gerry O’Sullivan, Sky’s Director of Strategic Product Development, commented:

„Being able to broadcast a live event in 3D is a real breakthrough as previous demonstrations have relied on recorded material.

This is the first time we’ve broadcast a live event in 3D over satellite and it shows the significant progress we’re making with our research and development activity. The Keane event not only gave us new insight into our ability to deliver a rich and immersive live 3D experience into the home, but also confirmed that arts programming is another genre which has the potential to benefit from 3D.



Keane in Anaglyph

Commenting for Sky, Gerry O’Sullivan, director of strategic product development, said: „What’s brilliant is that so much happened with that content on one night. If the 3D skeptics had been at Abbey Road, they would be the ones saying: ‚Yes, we can do this in a year or two‘. “

„The producers have to come on board. The manufacturers must flood the market with 3D sets. If we can get a good amount of content together, consumers will lap it up“, he added. ■



After Academy and Emmy Award interest in SKATER® Products remains high

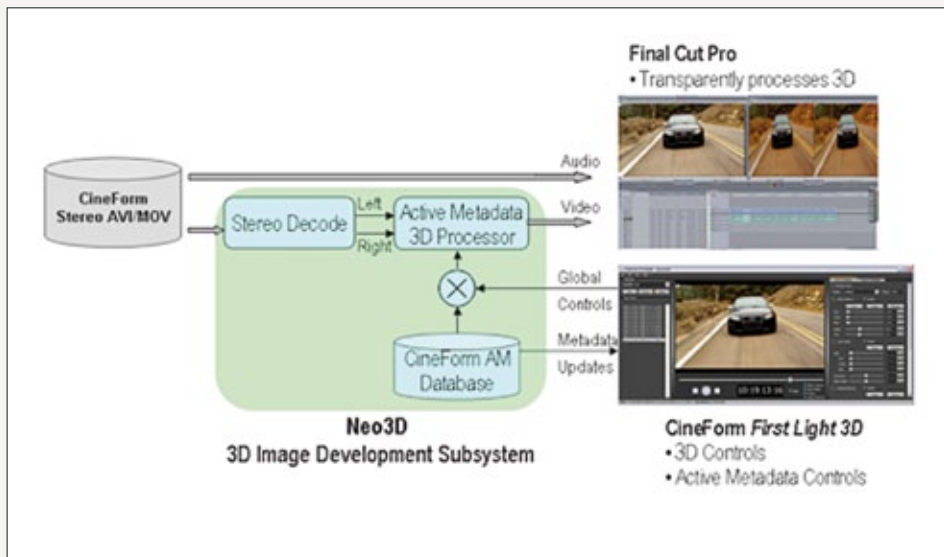
The wide range of SKATER® products still gains interest from professionals in the industry after receiving a Technical Achievement Award from the Academy of Motion Picture Arts and Sciences and an Engineering Plaque on the Primetime Emmy Awards last year.

P+S Technik will exhibit the entire range of the SKATER® dolly products and all it’s accessories. Director/DoP Sebastian Cramer, who invented the SKATER® will be present at the P+S Technik booth No. 11.E28. in Hall 11 to answer questions and share his experience.

Check out yourself, how the creative potential of the SKATER® Mini Dolly can be expanded, with the Tilt Module, Motor Control, SKATER® Scope or the programmable SKATER® Turntable.



The Rotation Calculator is now available as free public download for iPhone and iPod touch on the P+S Technik website, www.pstechnik.de ■



CineForm Stereo (3D) Workflow Overview

Text: David Taylor CEO, Cineform

CineForm’s stereo (3D) technology is designed for 3D editorial and presentation workflows supporting feature film, television, optical, or Internet distribution. The heart of CineForm’s stereo technology is the creation of a stereo CineForm AVI or QuickTime file from Left and Right eye sources that also contain some unique characteristics as discussed below. Stereo CineForm files may be used throughout 3D editorial using standard 2D tools (such as Final Cut Pro or Premiere Pro) in combination with CineForm’s 3D editorial software called Neo3D.

CineForm stereo AVI/MOV files are compatible on both Windows and Mac including with existing 2D editorial and effects software from Adobe, Apple, Autodesk, Microsoft, Sony, etc. A QuickTime or DirectShow 2D application will interpret a CineForm stereo file as if it was a traditional single-stream file and will play the “eye” within the file that is defined as Left (or dominant). When CineForm’s 3D software application (such as Neo3D) is installed, numerous other 3D features are enabled as discussed below.

CineForm’s Active Metadata™ technology is an important part of 3D processing. Active Metadata allows numerous 3D processing steps to be performed non-destructively and in real time on the decoded video stream(s) prior to

presenting the requested frames to the calling application, including:

- Convergence controls: horizontal, vertical, and rotation
- Stereo color adjustments: gain/offset, gamma, color matrix, 3D LUTs
- Independent eye color adjustments (beneficial when using beam splitter rigs)
- Independent eye Image flip: (for when using beam splitter rigs)

CineForm’s Neo3D software includes First Light 3D that includes 3D controls to manage Active Metadata database parameters mentioned above, and further provides the dynamic global controls (rules) used by the Active Metadata 3D processor.

Numerous display formats may be selected based on the display device (2D or 3D) plus the capabilities of the installed hardware output device (DVI, HD-SDI), including:

- 2D: Left eye or Right eye
- 3D: Anaglyph for normal 2D monitors
- HD Frame: (side-by-side, over-under, interlace) for 3D HD monitors
- Dual-Link for digital projection (pending)

Display modes may be switched dynamically by the user between any of

the 2D or 3D formats depending on the desired editorial or presentation function being performed.

Creating CineForm Stereo Files. CineForm stereo files may be created from live camera sources in real time by direct ingest, or from file-based sources of various formats: DPX files, CineForm files, R3D files, etc. Often your camera or file-based sources will begin as separate Left and Right eye content. In this case your workflow will be to:

1. Convert each L and R eye into a separate L/R CineForm file. We have many Tech Notes describing how to convert camera or file sources to CineForm files so we’ll not dive deeper on this right now.
2. Create a stereo (3D) CineForm file by multiplexing (muxing) together the individual eye files. The mux process is performed on Mac using First Light 3D, a valuable utility that ships with Neo3D, and which you’ll use for many parts of your 3D workflow.

Note: we’ll be providing scriptable tools to convert certain file-based formats, such as DPX files, directly into CineForm stereo files in one step, including encoding of each separate eye and multiplexing into the stereo file.

When creating CineForm stereo files, the assumed synchronization mechanism between eyes is the recorded timecode in each individual stream. However, if files are captured with incorrect timecode, then files from individual eyes may be shifted against one another and re-multiplexed into a new CineForm stereo file without the need for re-encoding.

A key benefit of the CineForm 3D workflow is the online workflow – resulting stereo streams contain full-resolution images for each eye. This allows the same CineForm stereo files used in editorial (and displayed in HD frame mode) to be moved into a digital theater and played directly through a RealD stereo projector using dual-link mode.

As with the creation of any CineForm file, stereo Active Metadata may be inserted into the source stream based on user preference. ■

WEISSCAM HS-2 – Evolution



2005

Director of Photography (DoP) Stefan Weiss founds the company and brand WEISSCAM and starts developing the very first prototype of the WEISSCAM digital high speed camera. First commercials were already shot with this prototype.



2006

After many successful high speed shootings with the very first prototype, P+S Technik and Stefan Weiss partner to further develop the prototype of the WEISSCAM towards the commercial digital high speed camera WEISSCAM

HS-1 for the international market. The camera gets completely re-designed, allows more ease of use and its applicability becomes more flexible.

The capturing device becomes completed with a control unit, a portable computer with newest hard- and software and a water-resistant keyboard. The digital high speed camera WEISSCAM HS-1 frequently gets used for diverse commercials, image films and TV productions.

Already in 2006 the WEISSCAM HS-1 receives the most important European award for innovative and trendsetting products and developments of the Motion Picture Technology, the coveted CINEC Award. The CINEC Award is presented by the Bavarian Society for the Advancement of Film Technology (FGF). Just six months later the WEISSCAM HS-1 receives the TV Technology Award during NAB 2007.



2007

With the set experience of the WEISSCAM HS-1, P+S Technik and Stefan

Weiss start to develop a standalone follow-up model that makes a computer on set obsolete and is able to work in both „worlds“: HD-SDI and RAW.



2009

After more than 2 years of development P+S Technik and Stefan Weiss launch the whole new product family on the international market: WEISSCAM HS-2 Camera, WEISSCAM DM-2 DigiMag, WEISSCAM DBB Debayerbox and WEISSCAM HU-2 Hand Unit. The WEISSCAM HS-2 features excellent image quality, simple operation and an intelligent workflow. The possibility to work in both RAW and HD format ensures flexible usability of the not only high speed camera as it considers the large variety of requirements on set.

The WEISSCAM HS-2 gets complemented with the single and dual link recorder WEISSCAM DM-2 DigiMag which can record HD as well as RAW files, and the WEISSCAM DBB Debayerbox, which allows real-time debayering of colour algorithms thanks to the newest technology.

Since the delivery of the first camera of the WEISSCAM HS-2 series to customers in May 2009, the camera system was already used for many different projects including (extreme) sports, music videos, commercials and many more.

„My passion is shooting and creating high quality images and I am convinced, that the best way to develop and improve a product is simply to work with our own product“, Stefan Weiss, DoP & founder of WEISSCAM.

Digital Intermediate: From start to finish

- > Baselight Grading DCI-Theatre
- > Film Scanning: Steady Frame
- > 4 K – RED-Workflow
- > 3D-Stereo Workflow
- > HD-Editing and Online
- > VFX – Flame, Smoke, Maya
- > DCI-DCP Deliveries
- > 35mm Filmrecording
- > Digital Filmrestoration
- > Sound: Design, Synchro, 5.1 Mixing
- > HD standard and format conversion

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Restoration project: DEFA films from the early 1990's remastered in High Definition

Text: Jens Theo Müller

Working for MB-Babelsberg, PostFactory has restored 12 films from the late defa production period and produced new HDCam SR mastertapes. The films were produced in the early 90's in the Studio Babelsberg area by Defa successor companies. They include „Der Verdacht“ by Frank Beyer/Ulrich Plenzdorf or „Zwischen Pankow und Zehlendorf“ by Horst Seemann.

Many of the films do not just document post-reunification Germany, but are also early examples of the „Berlin School“. They focus on the stark reality of everyday life, with the stories often being set in socially disadvantaged communities.

They tackle problems in human relations. Here are two examples: „Herz

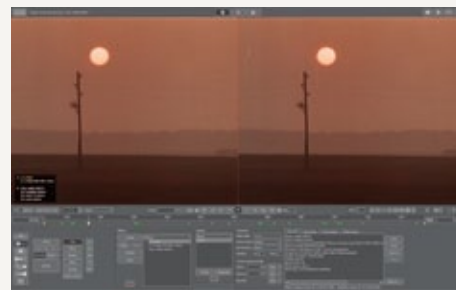
sprung“ by Helke Misselwitz, featuring Ben Becker, Eva Maria-Hagen and Günter Lambrecht, depicts life in a dismal, dead-end backwater somewhere in the Mark Brandenburg region of former East Germany. After reunification, social structures have collapsed, and Herzsprung is also on the skids economically. Shortly after the Wall comes down, Johanna a young mother-of-two loses her job in a works canteen. Then she falls in love with a mysterious black man...

„Der Blaue“ (1993) is a re-discovered gem. Lienhard Wawrzyn's movie features Manfred Krug and Ulrich Mühe, and is the first film to deal with betrayal and reconciliation in connection with the Ministry of State Security (Stasi).

In the film, Ulrich Mühe plays a GDR victim who exposes a Stasi informer, played by Manfred Krug.

The series also contains German-French co-productions like „The Machine“ with Gerard Depardieu and „A French Woman“ by Régis Wargnier, with Emmanuelle Béart.

PostFactory scanned the 12 films in 2K, processed and backed up the data, and produced new HD-Mastertapes in Standard HDCamSR 4:4:4. It was the first time the newly developed SteadyFrame 2K scanner from P+S Technik was used. The SteadyFrame was specially designed for archive applications.



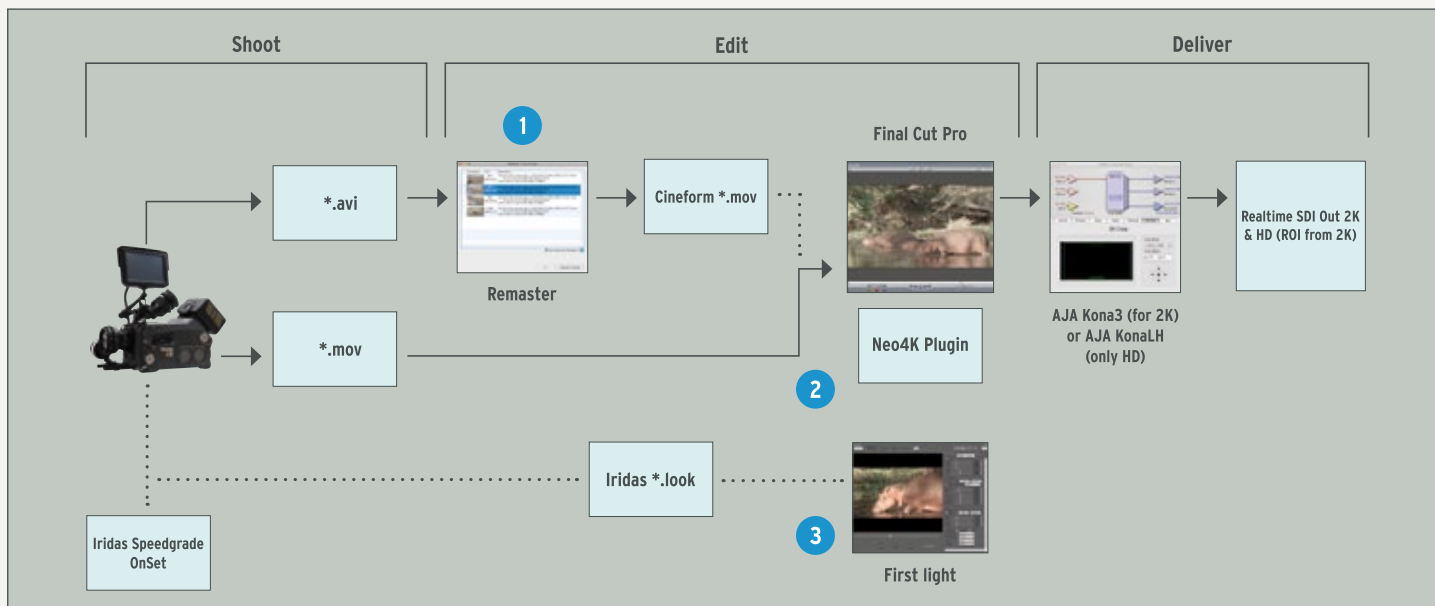
This line-scanner works with a careful-action sprocket-free film transport system for scanning great quantities in short time without harming the film material. It delivers 2K raw data, keeping all options open for restoration, colour correction and vfx. Thanks to its pin-less stabilisation software the Steady Frame results have an extreme image steadiness – useful for visual effects shots filmed on 35mm. The scanned film data was colour-corrected on a Baselight system and simultaneously processed with PF-Clean.

The restoration software can link directly with Baselight and insert the restored frames back into the timeline. ■

www.telefactory.com

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3D Stereo Rig	3d@pstechnik.de
SKATER® Products	skater@pstechnik.de
Film Technique/ Used Equipment	info@pstechnik.de
OneBox	info@pstechnik.de
SteadyFrame Scanner	scanner@pstechnik.de
General	info@pstechnik.de
Support Hardware Service	service@pstechnik.de
Support Hotline	helpdesk@pstechnik.de



Final Cut Workflow Solutions

We are proud to announce some major improvements on the SI-2K workflow. The direct recording to Quicktime has been improved to deliver an advanced Online Final Cut Pro workflow.

As importing .avi files in Final Cut Pro was rather difficult in the past, there were some issues concerning editing those .avi files in Final Cut. The latest software release from Cineform's Neo4K now includes a new tool for Mac OS called „Remaster“. This allows fast batch conversion of AVI to Quicktime Files and therefore enables users to import former AVI recordings including all TC information.

Also Gamma Shifting in Transitions is solved. Remaster works right away with files recorded on SI-DVR release 1.1.518 or later. A Neo4K license for Final Cut can be purchased for 999 USD. Finally we are also able to output SDI from Final Cut. AJA (www.aja.com) now natively supports Realtime HD-SDI out from Cineform RAW – for both

HD and 2K resolution. For 2K output a region of interest can be selected. This enables realtime editing and play out of your SI-2K footage with Final Cut Pro directly from the timeline. As AJA Video Solutions are widely spread, this development in the workflow is a key for TV Broadcast work.

This workflow solution was presented by P+S Technik at the International Filmfestival 2009 In Munich at the „Final Cut and Beyond“ event by Apple.

SI-2K workflow 2.1 AJA Kona3

Cineform Neo4K Toolset:

- Plugin Final Cut
- Remaster
- Firstlight

System Requirements 15.7.2009

Neo4K version: 2.3.13.98 (14-July). AJA Kona Driver: 6.1 (Beta 203 or later)

- Final Cut: 6.0.5 or 6.0.6
- OSX: 10.5.7
- QuickTime: 7.6.2

Hardware Platform:

Intel Mac. Mac Pro preferred with fast RAID (RAID 0 or 5) for media. Minimum of 4 GBytes of RAM for a notebook, 8GByte for the old 8 core Mac Pro, and 12 GBytes for the new 8 core Mac Pro.

Description

1. ReMaster - On the Mac Platform Quicktime is supported by Final Cut. To transform *.avi files from the camera to *.mov Quicktime Files, ReMaster is needed for Batch Rewrapping

2. Neo4K Plugin - Neo4K Plugin allows Calling Applications like Final Cut to communicate with the Cineform Decoder installed with Neo4K

3. Firstlight - with this Supporting Application realtime Interaction and Modification with the Cineform File Metadata is possible (i.e. Color Information & Debayer Settings). Also Iridas look Files can be applied. ■

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Due to our constant endeavour to improve quality and design, modifications may be made to products from time to time. Details of availability and specifications given in this publication are subject to change without notice.



P+S TECHNIK IBC 2009 Guide

WEISSCAM - 35Digital & Highspeed
SI-2K - 16Digital Camera System

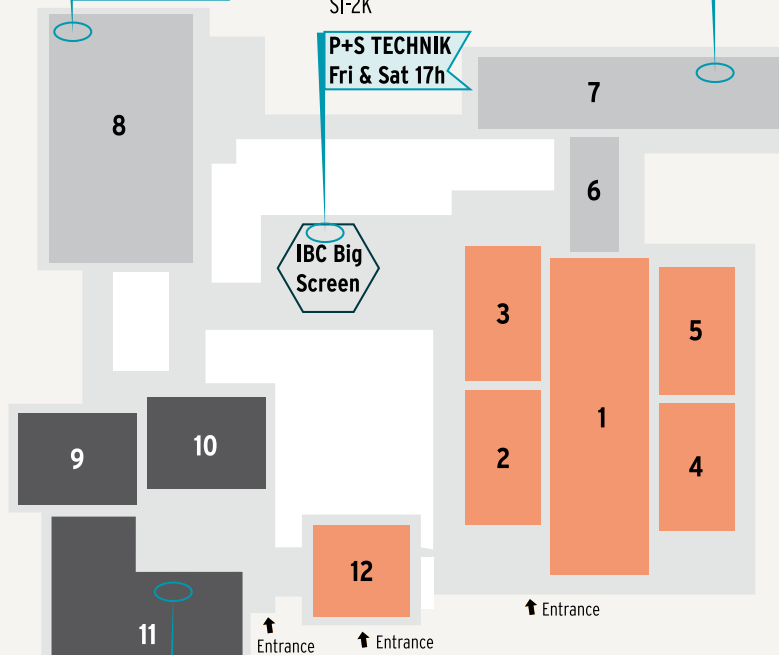
**P+S TECHNIK
@ Production
Village**

3D STEREO RIGS
WEISSCAM
SI-2K

**P+S TECHNIK
Fri & Sat 17h**

**P+S TECHNIK
Booth 7.H01**

Post Production Products
ONEBOX
Color Grading
Conforming
STEADYFRAME SCANNER
Archive Application



**P+S TECHNIK
Booth 11.E28**

35Digital cameras & lenses
WEISSCAM
PRO35
MINI35

16Digital cameras & lenses
SI-2K
SI-2K Editing

3D STEREO RIGS
SKATER

IBC Schedule

Day	Time	Location	Event	Speaker
Friday	17:00 - 18:00	IBC Big Screen Digital Cinema	Production Short Cuts from SI-2K and WEISSCAM HS-2 productions 2009	P+S Technik and guests
Saturday	13:30 - 14:00	Production Village Hall 8	Digital Capturing with WEISSCAM HS-2 and SI-2K	Carlos
	11:30	11.E28	WEISSCAM HS-2	Aki
	12:30		SI-2K	Simon
	15:00		3D Stereo Rigs	Simon
	16:00		Skater	Sebastian
	11:30	7.H01	SteadyFrame Scanner	Thomas
	12:30		OneBox	Jo
	15:00		SteadyFrame Scanner	Thomas
	16:00		OneBox	Jo
	17:00 - 18:00	IBC Big Screen Digital Cinema	Production Short Cuts from 3D Stereo Rig productions 2009	P+S Technik and guests
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	11:30	7.H01	SteadyFrame Scanner	Thomas
	12:30		OneBox	Jo
	15:00		SteadyFrame Scanner	Thomas
	16:00		OneBox	Jo

Product Presentations

Everyday you can listen to special presentation on our hottest products at stand 11.E28 as well as stand 7.H01. The detailed programme shedule can be found on the next page.

SteadyFrame Special Offer

Ago ahead and test the quality of the SteadyFrame Scanner with your own film material: Bring along to IBC your own film roll and we will do a scan test directly onsite on our stand 7.H01. Exotic film formats are especially welcome! To reserve yourself a scanning slot please send an email to news@pstechnik.de

IBC Screening

Fri Sept. 11th - 17-18h - Digital Capturing

DoPs present their newest productions using the WEISSCAM HS-2.

Sat Sept. 12th - 17-18h - Developing the 3rd Dimension

International stereographers share their experiences and philosophies with you in the 'show and tell' environment of the IBC Big Screen Cinema during this session.