

ARRI NEWS

IBC ISSUE 2013

NEW ARRI M8

800-watt M8 lamphead rounds out the versatile M-Series



CFast 2.0 FOR ALEXA XT/XR

CFast 2.0 Adapter allows in-camera recording to new SanDisk cards



ARRISCAN ARCHIVE

Century-old Mexican film footage saved by ARRI archive technology



ULTRA WIDE ZOOM

New UWZ 9.5-18/T2.9 delivers exceptional super wide-angle images

EDITORIAL

DEAR FRIENDS AND COLLEAGUES

Going into IBC we're excited by the amazing take-up of the ALEXA XT cameras and XR Module upgrade since we introduced them in February. Inside this issue you'll find a global overview of major movies recording ARRIRAW in-camera to ALEXA XT/XR models, using the proven Codex workflow. You'll also find details of a new CFast 2.0 Adapter for these models, which offers super-quick data rates and further expands in-camera recording options. Top directors and DPs have every reason to continue embracing ALEXA as the camera of choice, whatever the distribution format or resolution.



We're thrilled to have a working prototype of a new camera at the show, not a successor to ALEXA but a companion – AMIRA. Ergonomically designed for single operators and shoulder-mounted filming, AMIRA is a documentary-style camera that allows you to go anywhere and shoot anything. Work on the project was continuing beyond our print deadline for this issue, but you can visit the AMIRA microsite arri.com/amira to learn more.



Our new M8 lamphead expands the highly successful M-Series family of HMI fixtures equipped with patented MAX Technology; we also have another new LED Fresnel light in the L-Series – the L7-DT tuneable daylight model. On the lenses side we are proud to unveil a remarkable Ultra Wide Zoom, and to announce that the Master Anamorphic series has begun shipping. Representing our ARRISCAN archive technologies we feature a case study in these pages about the restoration of 100-year-old Mexican film footage.

Don't forget to check in at our IBC show page arri.com/ibc2013 where you'll find full details about all of our products and activities at the show. If you're coming to Amsterdam in person, we hope to see you there.

Dr. Martin Prillmann

Franz Kraus

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Anthony Dod Mantle, ASC, BSC, DFF, discusses his work on Ron Howard's new 1970s Formula One motor racing movie

RUSH

Cinematographer Anthony Dod Mantle, ASC, BSC, DFF, chose to work with ALEXA and ARRIRAW again on his latest film, which tells the story of James Hunt and Niki Lauda's epic battle for the 1976 Formula One World Drivers' Championship. Directed by Ron Howard, *Rush* mixes historic archive footage with newly shot material to create a vivid evocation of one of the most exciting F1 seasons ever.

What was it like recreating Lauda's famous crash at the Nürburgring?

It was a massive day. We went to the exact spot where it happened and very religiously recreated it as it was. The original archive footage of that crash is by a young kid with a Super 8 camera and it's a really brilliant shot. I wanted to get that in there, so eventually we went ahead and contacted the guy, who is now 42 years old, and I replicated his material. We really built the scene around that, with the same angles and spaces, and I think the crash is amazing, being a mixture of what we did and what was done in post.

Was the process of sourcing suitable archive footage difficult?

It was a period of three or four months, long before we started shooting. We discovered through very early prep testing that there's a certain kind of archive footage you can use. Once Ron and I found stuff we liked, they'd try to find the best source they could – hopefully the original negative, but that wasn't always possible. My task, together with the post guys, was to push it in the direction I was thinking for the film, forcing it into the world of color and contrast that I was beginning to visualize.

What are your thoughts on the ALEXA system, having used it on several different productions?

The ALEXA system is without doubt the first digital image capture system to satisfy the more fearful or skeptical sectors of the filmmaking community. In turn this has accelerated the sad decline in the amount of celluloid being used, although there are stories that are at last now being told, due to greater access to affordable shooting formats. Speaking for myself, today I am – thank God – being offered the choice to shoot on film or digital, regardless of the budget. This suggests to me that ultimately



Photo: Jaap Buitendijk



Photo: Jaap Buitendijk



Dod Mantle on the *Rush* set, flanked by ARRI cameras old and new



A reference photo for the look Dod Mantle wanted to capture

we might have a sufficient number of professional people who can actually see the value and potential applications of both formats.

You had the ALEXA Studio on *Rush* – were you operating yourself?

I did try to operate the A-camera, which was the Studio. I couldn't always be there, but mostly I managed to be on the key dramatic camera. For our biggest day we had 27 cameras, but there were often seven to ten, with second unit, plate units, on-board cameras and coverage cameras waiting on certain corners of the race track. I love the optical viewfinder of the ALEXA Studio, and I miss the calm experience of the purring mirror and gate of a 35 mm camera inside my head. ARRI is working very hard and at considerable expense to make the optical viewfinder work with digital image capture. It will perhaps never be quite the same as it was on celluloid, but they are making the effort.

Why was ARRIRAW the right choice for this film?

Having agreed on the historic archive footage we were going to use, I started thinking about how I was going to shoot the new material. The archive footage was of inferior resolution and luminance, but I knew that I was going to marry everything together on another level – one that I deemed appropriately visceral for 1970s Formula One motor racing. We were shooting in the UK between January and June, and attempting to battle the weather gods there is a fruitless ambition, so latitude was the word. Gathering as much information as possible meant I could decide on the aesthetic look I wanted – ARRIRAW was the obvious choice.





L-SERIES IN ALBANIA

The Agon Channel chooses ARRI L7-C and L7-T LED Fresnel lights and goes on air just five months after work on its new studios begins

Francesco Becchetti, an Italian businessman who made his name investing in the production of environmentally-friendly hydroelectric energy, recently took on a new challenge in a totally unrelated industry – he decided to open a TV production center in Albania and begin broadcasting under the banner of the Agon Channel.

A newcomer to the world of television, Becchetti knew that his choice of partners on the project would be instrumental to its success. ARRI Italia were brought on board and co-operated with Professional Show, a system integrator based in north-east Italy, as well as with production designer Patrizia Bocconi and an Albanian architect. Together they provided all of the expertise required for the creation of a new production space

totaling around 1,800 m², allowing Agon to go on air just five months after work on the project began.

ARRI Italia advised on lighting fixtures, suspension systems, control rooms and video recording solutions. In addition, significant support was provided in designing the production center's layout and planning the requirements of its air conditioning system, electricity generators, wiring scheme and DMX distribution. Two self-supporting aluminum structures were built for the lighting suspension system, covering areas of 300 and 150 m², with each of the 12 beams carrying a workload of 1,550 kg. In just three days these vast structures were assembled in the two studios and local companies were able to start creating the sets.

An investor familiar with electricity production will of course be sensitive to energy savings, so LED lighting was a natural choice for Becchetti. An order for 80 ARRI L7-T and 50 L7-C LED Fresnels was placed, supplemented by a small number of tungsten fixtures, and an Ultra Violet lighting console from Compulite was provided for the control of LED lights and moving heads.

Cinematographer Angelo Danieli was brought in to help implement the lighting plan. "Working with ARRI LED lights was not entirely new for me," he says. "I had already used the L7-C on a few different shoots and I really appreciated its versatility. Setting up the Agon studios with L7-T and L7-C units made me appreciate the L-Series still further, in particular its suitability for broadcast television. The powerful light output and color temperature control gave me the confidence to balance L7-Cs with exterior



NEW L7-DT DAYLIGHT TUNEABLE

Only a few months after the announcement of the L7-TT (tuneable tungsten) and Active Cooling versions of the popular L7 LED Fresnel light, another new addition to the L-Series is being released – a tuneable daylight model designated as the L7-DT.

The L7-DT is adjustable from 5,000 K to 6,500 K. This versatility allows for fine-tuning of the color temperature to match other daylight light sources or TV displays in the shot, or to create different daylight looks. While maintaining the same size and weight as current L7 fixtures, the L7-DT is more than 30% brighter than the L7-C. It also offers adjustable green-magenta point and amazing color quality and consistency. The L7-DT is perfect for the many TV studios currently switching to daylight fixtures.



sources such as the sun or HMI lights, ensuring color uniformity throughout the day. The color rendering is exceptional and the ability to manipulate saturation allows for vivid and intense colors.”

Danieli continues, “I used the L7s for front lighting and found that they provide an extremely attractive beam of light. The barndoors design makes shaping the light easy and accurate, allowing precise and creative illumination of subjects, and clear areas of dark and light shades that accentuate depth of field. Also, the integrated DMX control system avoids the use of dimmer racks and brings significant savings of space and wiring costs, with higher accuracy levels and sensitivity of settings. I’m sure the Agon technicians and I can fully trust in ARRI’s LED technology, now and in the future.”



DP Angelo Danieli (left)
with Francesco Becchetti



ULTRA WIDE ZOOM

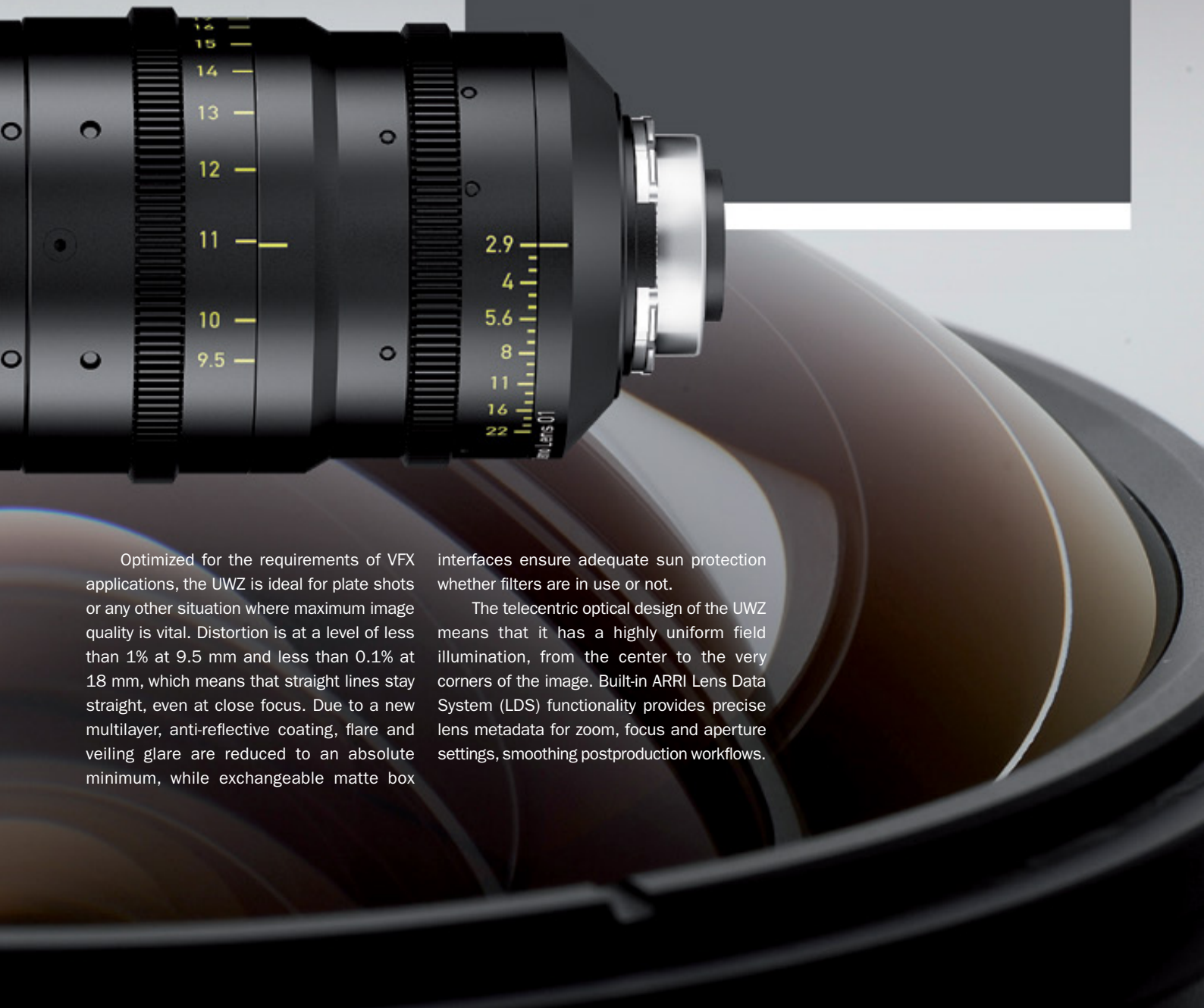
ARRI introduces the innovative new super wide-angle UWZ 9.5-18/T2.9



The new ARRI Ultra Wide Zoom UWZ 9.5-18/T2.9 is the first super wide-angle zoom lens for the professional cine market. With an unusually accommodating image circle of 33.7 mm, the UWZ has been designed for both existing and future generations of large-sensor digital cameras, incorporating patented, cutting-edge lens technologies that overcome known problems with previous wide-angle zooms. The optical performance of the UWZ is comparable to, or even exceeds, that of high-end wide-angle prime lenses. For maximum flexibility and cost efficiency on set, the UWZ can easily replace a complete range of wide-angle primes.

MAIN FEATURES

- Future-proof image circle of 33.7 mm for large sensor cameras
- Highest optical and mechanical performance
- Very low image distortion, even at 9.5 mm
- Virtually no image breathing
- Uniform field illumination, even at close focus
- Very high resolution and contrast up to the image corners
- Fixed entrance pupil position over the entire zoom range
- LDS for lens metadata in VFX applications
- Exchangeable matte box interfaces
- Matches other ARRI/FUJINON and ARRI/ZEISS lenses
- Available in ARRI PL-LDS or Canon EF mount



Optimized for the requirements of VFX applications, the UWZ is ideal for plate shots or any other situation where maximum image quality is vital. Distortion is at a level of less than 1% at 9.5 mm and less than 0.1% at 18 mm, which means that straight lines stay straight, even at close focus. Due to a new multilayer, anti-reflective coating, flare and veiling glare are reduced to an absolute minimum, while exchangeable matte box

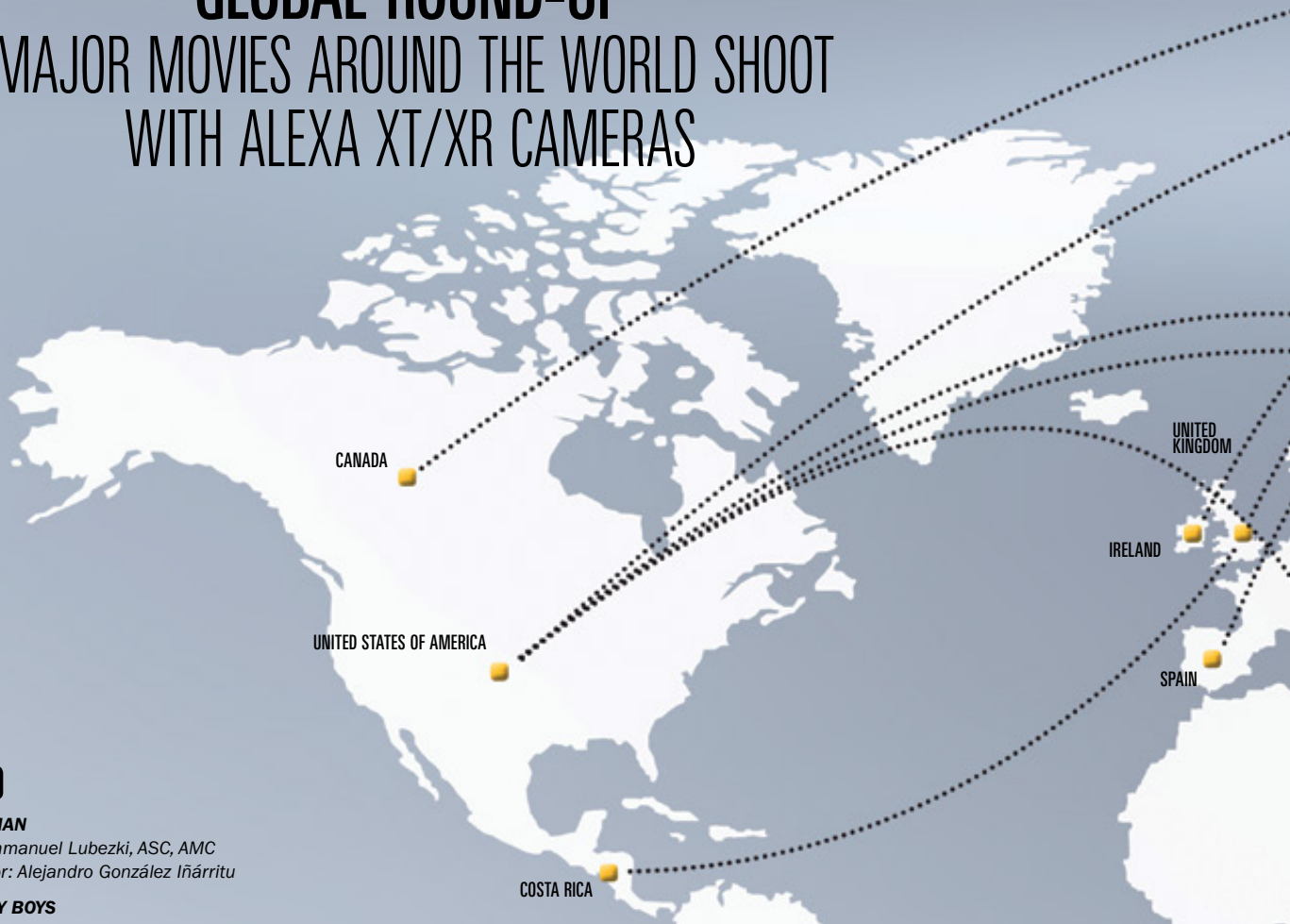
interfaces ensure adequate sun protection whether filters are in use or not.

The telecentric optical design of the UWZ means that it has a highly uniform field illumination, from the center to the very corners of the image. Built-in ARRI Lens Data System (LDS) functionality provides precise lens metadata for zoom, focus and aperture settings, smoothing postproduction workflows.



GLOBAL ROUND-UP

MAJOR MOVIES AROUND THE WORLD SHOOT WITH ALEXA XT/XR CAMERAS



USA

BIRDMAN

DP: Emmanuel Lubezki, ASC, AMC
Director: Alejandro González Iñárritu

JERSEY BOYS

DP: Tom Stern, ASC, AFC
Director: Clint Eastwood

THE HUNGER GAMES: MOCKINGJAY (Parts 1 & 2)

DP: Jo Willems, SBC
Director: Francis Lawrence

THE FAMILYMOON

DP: Julio Macat, ASC
Director: Frank Coraci

CYBER

DP: Stuart Dryburgh, ASC, NZSC
Director: Michael Mann

MILLION DOLLAR ARM

DP: Gyula Pados, HSC
Director: Craig Gillespie

CHINA

THE CROSSING

DP: Fei Zhao
Director: John Woo

BEIJING LOVE STORY

DP: Xiaofei Song
Director: Sicheng Chen

LADY IN THE PORTRAIT

DP: Jinsong Dong
Director: Charles de Meaux

UNITED KINGDOM

GUARDIANS OF THE GALAXY

DP: Ben Davis, BSC
Director: James Gunn

THE HARRY HILL MOVIE

DP: Baz Irvine
Director: Steve Bendelack

BLACK SEA

DP: Christopher Ross, BSC
Director: Kevin Macdonald

PADDINGTON BEAR

DP: Erik Wilson
Director: Paul King

IRELAND

LOVE, ROSIE

DP: Christian Rein
Director: Christian Ditter

GERMANY

THE BOOK THIEF

DP: Florian Ballhaus, ASC
Director: Brian Percival

HUNGARY

HERCULES: THE THRACIAN WARS

DP: Dante Spinotti, ASC, AIC
Director: Brett Ratner

SPAIN

THE GUNMAN

DP: Flavio Labiano, AEC
Director: Pierre Morel

CANADA

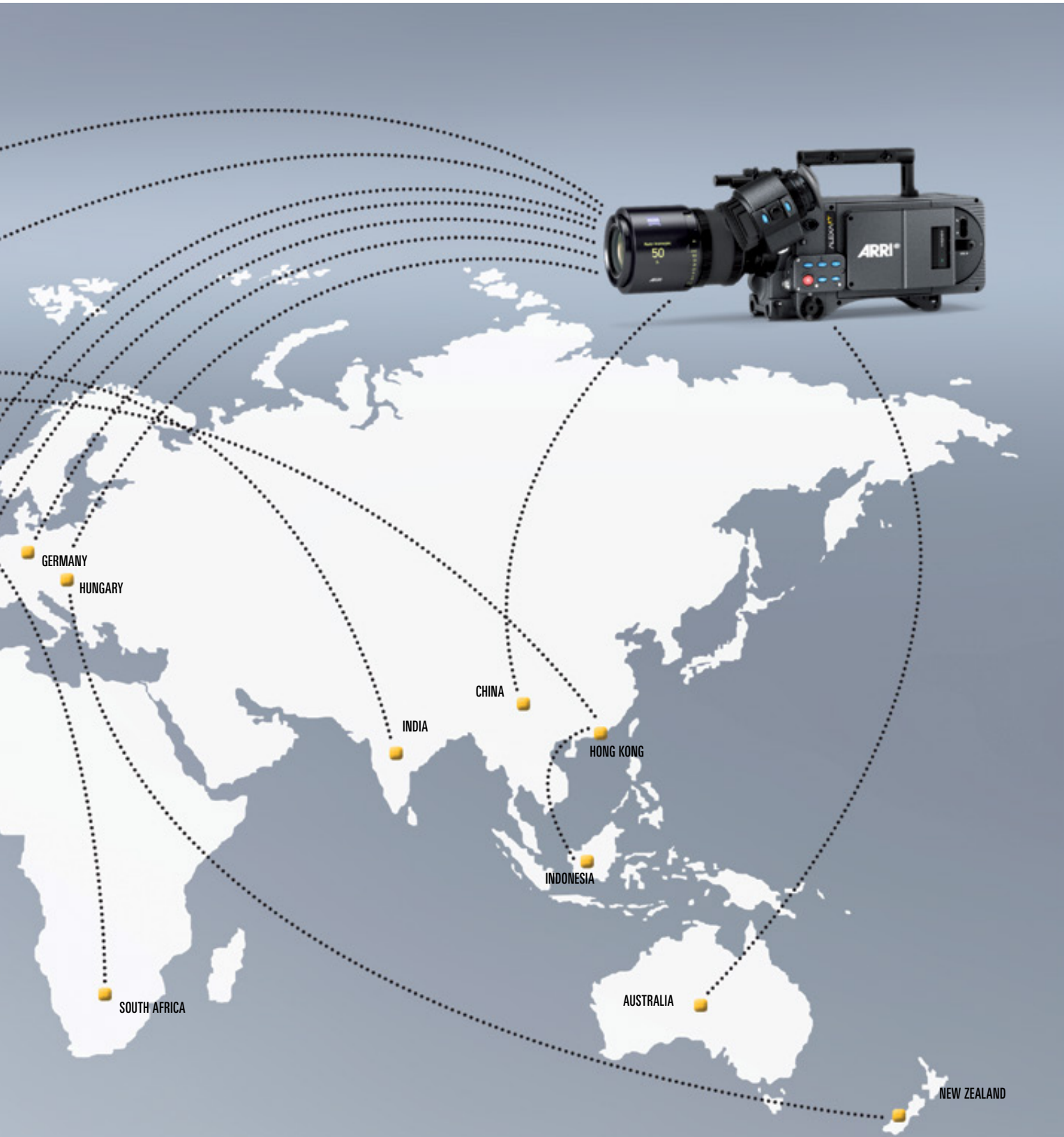
X-MEN: DAYS OF FUTURE PAST

DP: Newton Thomas Sigel, ASC
Director: Bryan Singer

AUSTRALIA

UNBROKEN

DP: Roger Deakins, CBE, ASC, BSC
Director: Angelina Jolie



Since their introduction earlier this year, the ALEXA XT cameras have achieved extraordinary success. The key feature of in-camera ARRIRAW recording to fast and rugged 512 GB XR Capture Drives has proved immensely popular, with many ALEXA Classic owners choosing to enable this same feature through the XR Module upgrade.

Productions of all kinds are shooting with ALEXA XT/XR cameras, but the maximum image quality of ARRIRAW is especially valued by commercials and feature films. Major movies were already using ARRIRAW and the Codex workflow, but are now embracing the freedom afforded by no longer needing external recorders.



REVOLUTIONARY RESTORATION

Cineteca Nacional uses ARRISCAN archive technology to restore the only known color footage of the Mexican Revolution

CINETECA NACIONAL MEXICO

Renovating its facilities to allow preservation and restoration work on vulnerable historic films, Cineteca Nacional in Mexico City recently installed an ARRISCAN scanner and archive accessories such as the Sprocketless Transport, Wet Gate and Archive Gate. Paolo Tosini, Digital Restoration Laboratory Coordinator at Cineteca, speaks with ARRI News about the work that has been done so far on delicate nitrate film materials, including unique, century-old color footage of the Mexican Revolution.

“Our initial focus was on the nitrate collection.”

What motivated the investment in ARRISCAN archive tools?

There was no laboratory like this in Mexico until we built it. Other public institutions were carrying out purely photochemical restorations and there were some private laboratories, but we wanted to create something new and work with materials that could not have been worked with before. I asked colleagues for ideas and everyone pointed me towards ARRI because of their focus on archive applications. We are very pleased with the different gates offered with the ARRISCAN; the Sprocketless Transport is extremely important for us, as is the pinless mode, and of course the Wet Gate is a big plus. The ARRI name was a significant factor; it's such an established company and has worked with film for so long.

What restoration work did you initially focus on?

Once the ARRISCAN was installed our initial focus was on the nitrate collection here at Cineteca. We started digitizing different nitrate materials to test them, especially color materials. One of the first tests we did was on the only color footage we have of the Mexican Revolution, dating from 1913-1914. It was shot by an American company that had a contract with Pancho Villa, the revolutionary leader. What's interesting is that the film was not pro-Revolution, it was actually anti-Revolution and was screened in the US, Canada and Europe to show how bad things were in Mexico.



Was the film in poor condition?

Unfortunately it was extremely damaged and in the final stages of decay, with sections that were stuck together. We don't always use the Archive Gate because the normal gate works well with most materials, but in this case we definitely needed the Archive Gate. The film was almost impossible to touch, it was so delicate.

There are very few materials about the Mexican Revolution and we now know that this 35 mm nitrate film stock, tinted with three or four different colors, is the only color footage in existence, so preserving it was culturally very important. We're also restoring the material, and we aim to finish the restoration in October.



The Archive Gate proved invaluable for work on the Mexican Revolution footage

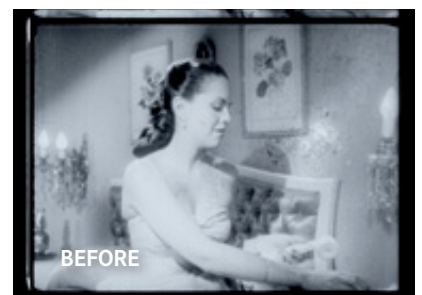
“The Sprocketless Transport is extremely important for us.”

Will that be your first complete restoration?

Actually we have already finished our first restoration project, a trailer for the 1951 Mexican film *Enseñame a Besar* (*Teach Me to Kiss*). As far as we know, the trailer is the only surviving element of the movie, so we decided to scan and restore it. We have also scanned some Uruguayan nitrate reels, both color and black-and-white, dating from 1923. It's the very first film shot in Uruguay and since there are no facilities there, they came to us with the restoration; we're very pleased to be working on it.

What scanning resolution do you work at?

We usually scan in 16-bit 3K resolution, although sometimes we downgrade to 2K for certain projects. From the beginning, we decided not to scan in 4K. This was not purely a financial decision, but one that came out of the fact that we are doing something totally new, so we wanted to start with a setup that was easy to manage, as well as affordable. Of course we are thinking of upgrading to 4K in the future, and we'd also like to add the Built-In Stabilization option to our ARRISCAN at some point.



Before-and-after frames from the *Enseñame a Besar* restoration

ARRISCAN ARCHIVE SALES CONTINUE



ARRI's Roman Gadner (left)
with Jeffrey Sonora of FPJ Productions

ARRI's clear focus on the archive market within the DI Systems sector has seen international ARRISCAN sales continue, with major film collections and restoration facilities investing in the wide range of archive options available.

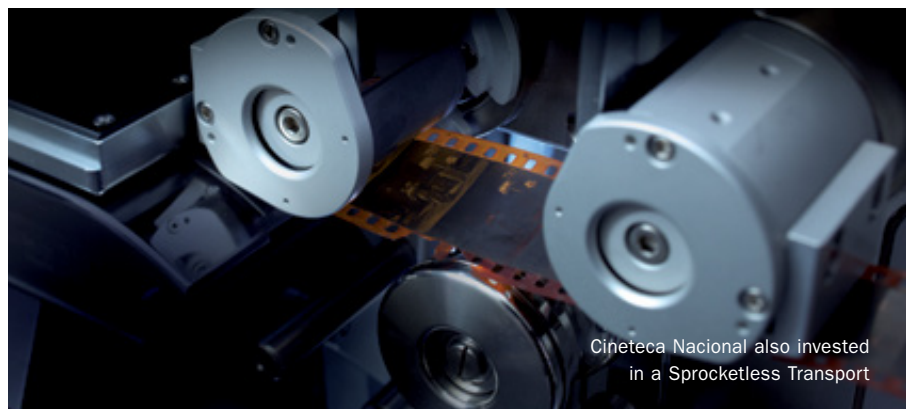
Recent sales include an ARRISCAN with complete archive package to the Éclair Group in Paris; an ARRISCAN 4K with Archive Gate and Built-In Stabilization to the Central Newsreel and Documentary Film Studio of

China; and a refurbished ARRISCAN 4K to the L'Imagine Ritrovata restoration laboratory in Bologna.

"We chose ARRI because of the strength of the brand," says Jeffrey Sonora of FPJ Productions in the Philippines, a media company that has just installed an ARRISCAN equipped with all archive accessories. "In the days when FPJ produced movies, we used ARRI cameras and lighting systems – we have always associated ARRI with quality and reliability."

Will nitrate film be a big part of your on-going work?

Yes, and we are very proud to work with nitrate materials. Years ago Cineteca burned down and was moved to a different location. Some believed that nitrate had caused the fire and there's a fear of how dangerous the materials are, but we want to overcome that fear and show how beautiful nitrate can be. Our main goal is to show these films as they were supposed to be seen. We created a laboratory around working with nitrate and we have put safe, reliable systems in place – that's why the ARRISCAN was so important to us. We're very happy with it, and the ARRI service technicians who come here have so much experience, they really help us a lot.



Cineteca Nacional also invested
in a Sprocketless Transport

MASTER ANAMORPHIC PERSPECTIVES

Three cinematographers shoot with ARRI/ZEISS Master Anamorphic lenses in LA, London and Baotou, China



Photo: Michael Borenstein

KARL WALTER LINDENLAUB, ASC, BVK - LOS ANGELES

The first shot we did was a big landscape with the sun coming over the mountain and telephone poles all along the road. We did that with the MA35 and it was pretty amazing that

it didn't distort the vertical lines like a 35 mm anamorphic normally does. This was at sunrise and we shot right into the sun to see if the lens could hold the image, and it worked nicely. Even with the car against the sun, there was nothing in the frame that bothered me – the coating is extremely good.

It's terrific to get a new set of anamorphics that is consistent across the range. We shot at dusk with the MA50 and the MA75, and it was interesting to see how long we could go on for, with ALEXA's sensitivity and the speed of the Master Anamorphic. I have never shot anamorphic with that little ambient light before.



Photo: Michael Borenstein



OLLY WIGGINS - LONDON



We were very keen to shoot at night and get some lights in shot to see how out-of-focus highlights looked when we threw the background out. As it got darker, the amazing low light performance of the ALEXA, combined with the beautiful out-of-focus highlights and rich color rendition of

the Master Anamorphic, made London look just fantastic.

The gradual focus fall-off was really stunning and the other thing was that there was no discernible breathing. Often with wider lenses you get very noticeable breathing and distortion with focus pulls,

which can distract audiences, but there was none of that with the MA35. You also pick up the beauty of skin tones very well with this lens, but it's more than that because the facial features themselves come out of the frame in a very attractive way.

SHENG LU - BAOTOU, CHINA



When I worked at the MA50's close focus distance to shoot characters' faces, there wasn't any of the normal anamorphic distortion at all, which was impressive. I was able to position actors on the left and right sides of the frame because there was no resolution weakness at the edges. There was also no breathing with focus pulls, or

'mumps' phenomenon in faces with far-to-near movement, which meant that our actors could move around anywhere in the frame without any distortion.

The performance at T1.9 exceeded my expectations. With older anamorphic lenses it was hard to shoot wide open because of acutance, so with night scenes we had to

use a lot of lighting equipment. For moonlight effects with the MA50 we needed only a couple of 6Ks, adding just one 12K when we shot the indoor scene.





LITTLE BLINDER

Rounding out the M-Series line-up, the remarkably bright ARRI M8 is the smallest lamphead with MAX Technology

THE M-SERIES FAMILY

The M8 is the latest and smallest lighting fixture in ARRI's highly successful M-Series of HMI lampheads. Like the rest of the M-Series, the M8 is equipped with MAX Technology, a unique, patented and award-winning reflector design that unifies the advantages of a Fresnel and a PAR fixture. With the M8 at one end and the ARRIMAX 18/12 at the other, the M-Series is a comprehensive daylight toolset of the highest quality, comprising five state-of-the-art lampheads that between them offer a range of nine evenly-staggered wattage options from 800 W up to 18,000 W.

MORE LIGHT, LESS WORK

The combination of an open face design and the unrivalled efficiency of the patented MAX reflector makes the M8 exceptionally bright; in fact, the light output produced by its 800 W lamp comes close to the output from a 1,200 W Fresnel or PAR (with lens). The unit can be focused between 15° and 62° just by turning the focus knob, producing a remarkably even light field and a crisp, clear shadow. By eliminating the need for bulky, easily breakable spread lenses, the M8 will speed up workflows on set.

PORTABLE AND VERSATILE

Lightweight and compact, the M8 is highly portable and ideal for a wide range of different uses. From cramped, inaccessible locations to feature film sound stages, the M8 will be equally at home and equally useful whether the production is a run-and-gun interview, a fast-moving documentary, a television series or a major movie.

ACCESSORY OPTIONS

A compact new frosted lens for the M8 slips easily into the fixture's accessory brackets, softening the light output in a smooth, pleasing and perfectly even way. By taking the edge off shadows, the frosted lens expands creative options on set. The M8 has the same 245 mm accessory diameter as the current ARRI D12 fixture, so existing barndoors, scrims and Chimeras can also be used, held securely in place by the M8's powerful tilt lock. In addition, the M8 can be used with existing 575 W, 1,200 W or 1,800 W cables.

COOL AND WEATHER-PROOF

Like many other ARRI lampheads, the M8 incorporates Cross Cooling, which allows safe operation even at extreme tilt angles of up to 90°. The electronics housing is spaced apart from the actual lamp housing to keep temperatures down and prolong the lifetime of electronic components. If parts do need replacing, the M8 is easy to open and therefore simple to maintain. For outdoor use the M8's IP23 protection class rating allows the lamphead to withstand rough weather conditions, even driving rain.

“The M8 is a great addition to the M-Series. With superb light output and low noise, it makes a perfect eye light on digital shoots.”

Gaffer Rainer Trautmann

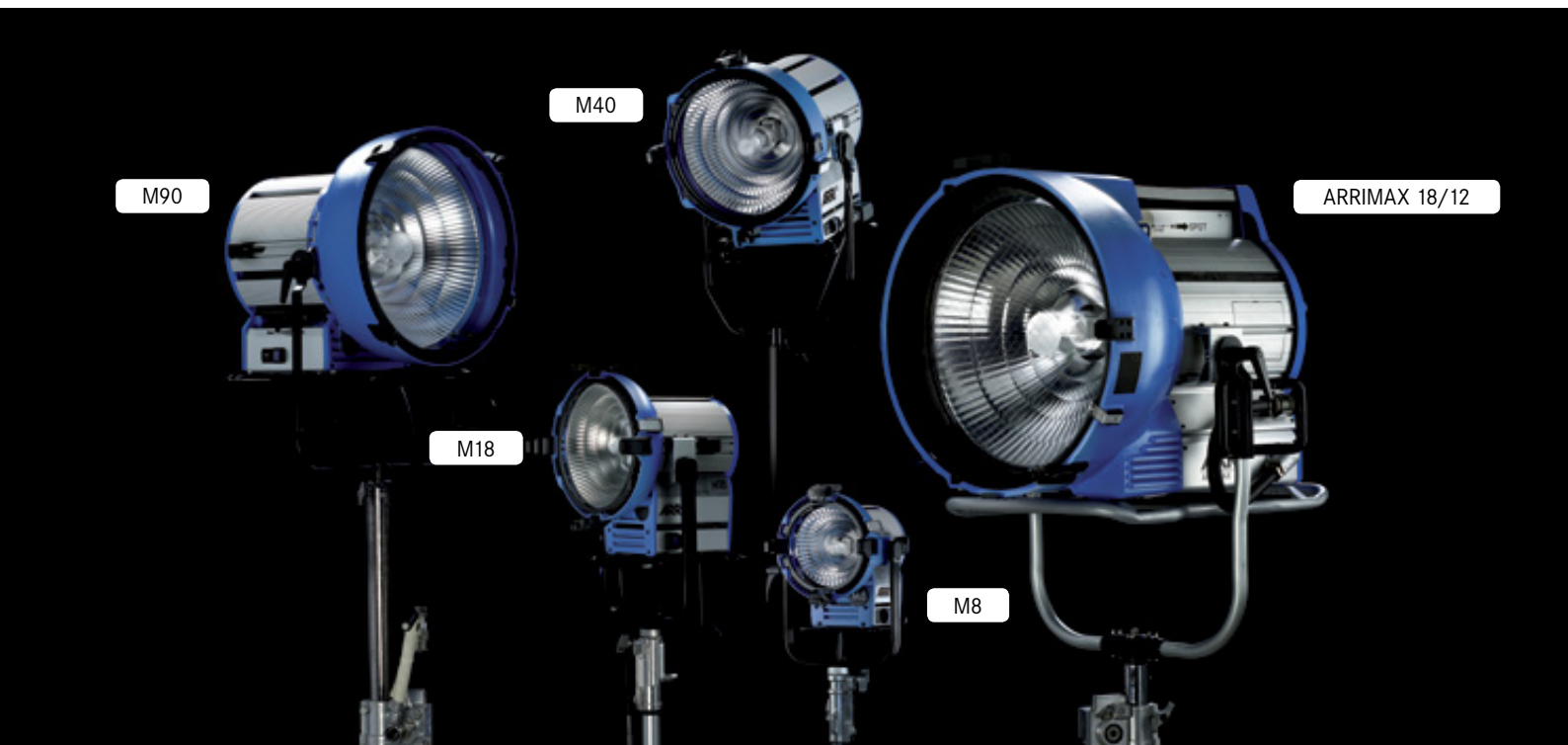
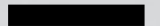


LIGHTWEIGHT EB 575/800 BALLAST



Specially designed for the M8 is ARRI's new small and lightweight EB 575/800 ballast, which can also be used with 575 W lampheads. In common with other new-generation ballasts from ARRI, it features CCL (Compensation for Cable Loss) technology and the power-saving ALF (Active Line Filter). The DMX-compatible EB 575/800 offers continuous dimming

from 50 to 100% and a choice of four frequency modes for either low noise (50/60 Hz) or flicker-free (75/1,000 Hz) operating – all in a robust, easy-to-use package.



M90

M40

ARRIMAX 18/12

M18

M8



SCANDAL

Oliver Bokelberg, ASC, BVK, shoots his third straight season of ABC's hit show with ALEXA

Photo: ABC/Vivian Zink

Featuring smart, savvy and complicated characters, *Scandal* is an ABC drama series set in the highest levels of U.S. government. At the show's center is a crisis management firm run by Olivia Pope (Kerry Washington), who knows how to fix everyone's life but her own. Created by Shonda Rhimes, the political thriller is now in production on season three.

Cinematographer Oliver Bokelberg, ASC, BVK, has been shooting the show with ALEXA since its inception. "I just like the look," he says. "Our cast is diverse, and the ALEXA handles all our skin colors beautifully. To my eyes, there is no other camera that can handle this as well; there's a certain softness to it, almost an organic grain structure. I feel it's the closest I can get to a film look."

In keeping with the show's secretive subject matter, watching it often feels like peering in on a conversation from another room. "It's as if we are witnessing a real-life scene out of the corner of our



Photo: ABC/Richard Foreman

eye," says Bokelberg. "If a character is crying, we might give them privacy and let them step or turn away from camera. At other times, when a character is emotionally involved, we might choose a subjective view, to enter their frame of mind."

Images are recorded in ProRes 422 Log C to SxS PRO cards and a

new ASC CDL (Color Decision List) is created for every setup. On-set color grading is done with the Technicolor DP Lights system, which is used to dial in colors and contrast while lighting. Color correction is not baked into the files, but is sent to Technicolor with the hard drives, where dailies timer Ben Chan uses the numbers as a starting point for his work. These adjusted CDL numbers also provide guidance for colorist Gareth Cook in the creation of the on-air master.

White is an important color in *Scandal*; it shows up in the many iconic buildings and monuments of Washington, D.C., and is echoed in the wardrobe of the Olivia Pope character. "The cameras can handle the contrast very well," notes Bokelberg. "To me, a white shirt should

be white. One of my favorite movies of all time is Jean-Luc Godard's 1961 classic *A Woman is a Woman*, photographed by Raoul Coutard. The lead character lives in an apartment with white walls and white sheer curtains. A few touches of controlled reds or blues here and there, and the result is absolutely gorgeous."

Most interiors are shot at EI 800, but Bokelberg feels comfortable going to 1280 or even 1600. On exteriors, he starts at EI 200. "One of the beautiful features of the ALEXA is its ease of use," he says. "And then there is the reliability – I've been shooting somewhere around 500 production days with the ALEXA and it's been extremely dependable."

Co-executive producer Tom Verica has directed a half-dozen episodes of *Scandal*, with more on the season three schedule. "I love the flexibility that the ALEXA has and I've been very happy with the results," he

says. "Situations can be challenging with the amount of light we have, but I'm always pleased with what comes out; they're just really brilliant pictures. I come from the acting world – I've been an actor for 25 years – and I think back to a time when we shot on film. The freedom we have now to keep rolling, to keep performances fresh without worrying about reloading, is a tremendous asset."

Verica and Bokelberg have been employing a new technique on the show that involves shooting the ALEXA at 120 fps to create a still image with the slightest bit of selective motion. "It's a way of heightening a specific moment in time," says Verica. "It's a graceful way of integrating historical images and lending the images a different visual style."

David Heuring

"I love the flexibility that the ALEXA has and I've been very happy with the results."



Bokelberg (standing) on the *Scandal* set
Photo: ABC/Danny Feld

SINGLE-AXIS LENS CONTROL

*ARRI's Wireless System expands with
the new SXU-1 single-axis hand unit for
iris or focus control*



ARRI's Wireless System is a sophisticated toolset for controlling lens and camera functions on set. At IBC 2013 ARRI is announcing a new product in the Wireless System line-up – the SXU-1, a single-axis hand unit for wireless iris or focus control.

The SXU-1 is a simple and affordable hand unit that is designed to control a single lens axis. It is compatible with ALEXA Plus and Studio models, as well as many other cameras via the Universal Motor Controller UMC-3A. On set the SXU-1 perfectly complements the 3-axis Wireless Compact Unit WCU-4 as a separate iris control unit, perhaps operated by the cinematographer in situations where subtle

SXU-1 MAIN FEATURES

- Single-axis lens controller
- Complements the WCU-4 with separate iris control
- Super-smooth control knob
- Backlit marking rings
- AC power supply option
- Affordable price

WCU-4 ON LOCATION



The innovative 3-axis WCU-4 was the first in a new generation of ARRI Wireless System tools. It is now joined by the SXU-1, with more exciting developments on the way.

1st AC Sascha El Gendi comments, "The WCU-4 is the best wireless focus system ARRI has ever developed; it's a huge step forward. I really like the big display, giving me all the important information at a glance."

WIRELESS SYSTEM HAND UNITS

WCU-4 THREE-AXIS



SXU-1 SINGLE-AXIS



exposure adjustments are required during travelling shots. Alternatively it can be used on its own, offering a low cost option to productions that do not need multi-axis wireless lens control.

With an ergonomic design and a super-smooth control knob, the SXU-1 is extremely comfortable to use, and its backlit marking rings can easily be read in the dark. The

unit is powered by an inexpensive camcorder battery, although there is also the option to plug into an AC power supply when available, for example when controlling the iris from behind a monitor. The SXU-1 is compatible with all ARRI Wireless System products with a white-coded radio modem.



+++ ALEXA XT/XR CFAST 2.0 ADAPTER +++ ALEXA SOFTWARE UPDATE PACKET SUP 9.0

IN-CAMERA CFAST 2.0



Further expanding ALEXA recording options, ARRI introduces a CFast 2.0 Adapter for ALEXA XT cameras or ALEXA Classic cameras with the XR Module upgrade

ARRI, an active member of the CompactFlash Association, is the first to implement SanDisk's new CFast 2.0 recording media, releasing a CFast 2.0 Adapter for ALEXA XT models and ALEXA Classic cameras upgraded with the XR Module. CFast 2.0 memory cards are robust and cost-effective, offering super-quick data rates, longer recording times, higher frame rates and compatibility with standard IT tools. They represent an exciting new in-camera recording option for ALEXA XT/XR owners.

EASY WORKFLOW

The combination of ALEXA and CFast 2.0 cards offers the same efficient workflow as SxS PRO cards and the same codec options: ProRes in 16:9 HD, 16:9 2K or 4:3 2K, and DNxHD in 16:9 HD. CFast 2.0 card recording also supports the same safety features as SxS PRO recording: files are closed continuously, so accidentally removing the card or suffering a power loss during recording results in a readable, uncorrupted file. With Software Update Packet SUP 9.0, both SxS PRO and CFast 2.0 cards will also support pre-recording and self-healing metadata.



DURABLE MEMORY CARDS

The Extreme Pro CFAST 2.0 cards will be available in 60 GB and 120 GB capacities with write speeds up to 350 MB/s, supporting the highest ALEXA frame rates for the highest quality codecs. The card's rugged, durable form factor is created to withstand real-world exposure to temperature, shock and vibration, and includes a pinless design, which lessens the chance of damaging the card or camera while changing cards.

HIGHER SPEEDS, LONGER RECORDING

Because of their high data rate, CFAST 2.0 cards support higher frame rates than SxS PRO cards, enabling recording of ProRes 4444 up to 120 fps. The 120 GB CFAST 2.0 cards have about twice the recording capacity of 64 GB SxS PRO cards. ALEXA XT/XR cameras now offer an unprecedented choice of professional, robust and reliable recording media: XR Capture Drives, CFAST 2.0 cards and SxS PRO cards.





SUP 9.0

+++ ALEXA XT/XR CFAST 2.0 ADAPTER +++ ALEXA SOFTWARE UPDATE PACKET SUP 9.0

ALEXA SOFTWARE UPDATES

Software Update Packet (SUP) 9.0 is full of exciting new features and SUP 10 is in development, continuing ARRI's ceaseless improvements to the ALEXA system

ALEXA cameras are designed for a long product cycle; this is apparent in the modularity of the side panels and lens mount, and in the way the system architecture allows radical improvements and new features. The cameras are kept current through hardware upgrade options, multiple accessories, paid software licenses and free-of-charge Software Update Packets (SUPs) that have introduced countless new features and improvements. SUP 9.0 will go into the final testing phase during IBC 2013 and ARRI is already working on converting customer feedback into detailed specifications for SUP 10.

MORE MEDIA CHOICES - CFAST 2.0 SUPPORT

From SUP 9.0 on, all ALEXA XT cameras and all ALEXA Classic cameras with the XR Module upgrade can use the new CFast 2.0 Adapter to record to, and play back from, CFast 2.0 cards. These cards offer high data rates for up to 120 fps of ProRes 4444 16:9 HD in a robust, reliable and cost-effective package.

SUP 9.0 MAIN FEATURES⁽¹⁾

- **More Media Choices**
 - CFast 2.0 support (ALEXA XT/XR)
- **Improved ProRes**
 - ProRes 4444 16:9 HD at 120 fps to XR Capture Drives and CFast 2.0 cards (ALEXA XT/XR)
 - ProRes pre-recording (ALEXA XT/XR/Classic)
 - Optimized ProRes compression (ALEXA XT/XR/Classic)
- **Better DNxHD**
 - DNxHD 444 (ALEXA XT/XR/Classic)
 - DNxHD 145 and 220x for ALEXA XT/XR cameras (already present in ALEXA Classic models)
- **More and Safer Metadata**
 - Self-healing metadata (ALEXA XT/XR/Classic)
 - Cooke /i LDS support for ALEXA Classic cameras (already present in ALEXA XT/XR models)⁽²⁾
- **New Operating Options**
 - WCU-4 enhancements (ALEXA XT/XR/Classic)
 - User interface improvements for ALEXA Classic cameras (already present in ALEXA XT/XR models)
- **New Lens Data System (LDS) Functions**
 - LDS support for Alura Extenders (all ALEXAs with PL-LDS mount)
 - Lens data source switch (all ALEXAs with PL-LDS mount)

⁽¹⁾ Except ALEXA HD and ALEXA HD Plus

⁽²⁾ Except ALEXA M and ALEXA XT M



+++ ALEXA SOFTWARE UPDATE PACKET SUP 9.0 +++ SNEAK PEEK: ALEXA XT OPEN GATE

SUP 9.0

High Speed

ProRes

IMPROVED PRORES RECORDING - HIGHER SPEEDS

By optimizing the image pipeline, ARRI has increased the maximum frame rate of the highest quality ProRes codec – ProRes 4444 – to 120 fps in 16:9 HD mode. The processing horsepower comes from the ALEXA XT/XR cameras and the higher data transfer rates are available on either XR Capture Drives or CFast 2.0 cards. It is now possible to keep shooting ProRes 4444, no matter what the frame rate.

PRORES PRE-RECORDING - CAPTURE THE UNPREDICTABLE

Based on requests from nature documentary cinematographers, ARRI is introducing ProRes pre-recording. When pre-record is enabled and the REC button is pushed for the first time, the camera will continuously capture images, audio and metadata into a temporary ring buffer – a section of memory on the actual recording medium. When the REC button is pushed a second time, the camera will keep everything that is stored in the buffer and continue to record from there. It is thus possible to

capture an event that occurred before the REC button is pushed for the second time, like the leap of a tiger or the sudden flight of an owl. The ring buffer can be set to short, medium or long, though the pre-record duration also depends on the chosen ProRes codec, aspect ratio, recording resolution and frame rate. As an example, the buffer times for ProRes 4444 16:9 HD at 24 fps at the short, medium and long settings are 4, 13 and 21 seconds.

DNxHD

BETTER DNxHD RECORDING - 444 AND ALEXA XT/XR SUPPORT

DNxHD will be available in 444 for all cameras with a DNxHD license. Developed in close collaboration with Avid, DNxHD 444 delivers stunning master quality images for those who want to stay native in the Avid world.

Metadata

MORE AND SAFER METADATA - SELF-HEALING AND LDS INCLUDES COOKE /i

ALEXA continuously closes and re-opens the files it records, so if a memory card is accidentally removed during recording, or power is suddenly lost, the files remain intact and uncorrupted. Although the incomplete FCP XML and ALE metadata files would still be readable in such a case, the camera would refuse this media for further recording.

From SUP 9.0 on, ALEXA will feature self-healing metadata – the ability to detect an incomplete metadata file, compare it with the recorded frames and reconstruct it, allowing the media to be used again.

Support for the Cooke /i protocol as part of the ARRI Lens Data System (LDS), already present in ALEXA XT/XR cameras, will now be extended to ALEXA Classic cameras with a PL-LDS mount. Being able to recognize the ARRI LDS, as well as the Cooke /i system, allows ALEXA to read and record lens metadata from all lenses with built-in encoders for more efficient working on the set and speedier VFX in post.

NEW OPERATING OPTIONS - WCU-4 AND IMPROVED USABILITY

The Wireless Compact Unit WCU-4 now offers an even tighter integration with ALEXA cameras, including proper display of pre-recording status, the ability to switch from regular speed to high speed, and a software switch for lens motor direction.

A number of user interface improvements previously released in SUP 8.1 for ALEXA XT/XR cameras have now been added for ALEXA Classic cameras: 'Audio disabled' will be indicated in the EVF and MON OUT status display, as will 'ND filter on/off' (with ALEXA Studio cameras). By popular demand, there is also a new frame line option for a smaller center dot.



+++ ALEXA SOFTWARE UPDATE PACKET SUP 9.0 +++ SNEAK PEEK: ALEXA XT OPEN GATE

LDS

NEW LDS FUNCTIONS - GREATER FLEXIBILITY

With the availability of the new 2x and 1.4x Alura Extenders, ALEXAs with a PL-LDS mount will recognize that such an extender

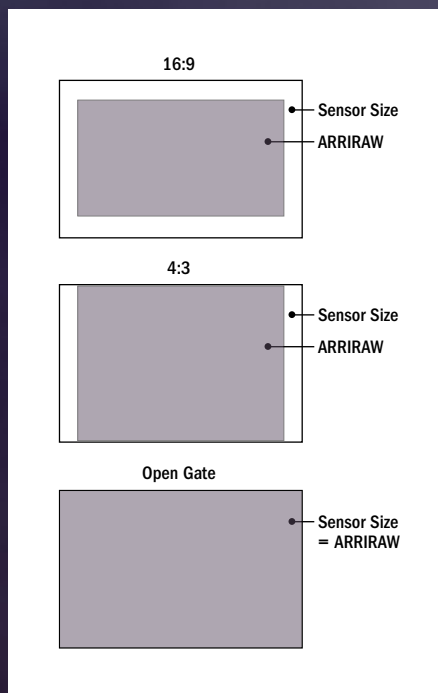
has been installed on an LDS lens, or on a non-LDS lens used with the Lens Data Archive. The camera will record the properly re-calculated lens metadata values and show them on all numeric displays.

For greater flexibility, it is now possible to choose the source of the lens data – either the encoders built into LDS lenses or

CLM motor encoders with a Lens Data Archive table that can be customized to the user's specific demands.



SNEAK PEEK: ALEXA XT OPEN GATE



A recording mode using the full sensor area has been made possible through the increased processing power of the ALEXA XT cameras. This experimental mode is still in the testing phase, but is likely to prove useful for VFX work, wide establishing shots and other specialist applications.

ALEXA XT cameras will be able to switch from recording normal ARRIRAW to record the entire 3424 x 2202 sensor area, yielding a 1.55:1 'open gate' image with slightly shallower depth of field and no surround view. Lenses must cover an image circle of 33.6 mm, so most spherical prime lenses above 20 mm are suitable, as are spherical zoom lenses at the longer end of their range. The new ARRI Ultra Wide Zoom 9.5-18/T2.9 fully covers the open gate area.

Bill Bennett, ASC, was the first to test the new feature, commenting: "When we viewed the results up-rezzed to 4K, we were surprised at how good 3.4K looks. However,

my clients don't want to process or distribute in 4K; they all love how the ALEXA looks. What they want is a little more resolution from the camera for repositioning, resizing, stabilizing or rotating the image. The open gate mode provides exactly that."

When shown test footage of the open gate mode, Oscar®-winning VFX supervisor Rob Legato thought it to be "a significant increase in sharpness. This could be used to reframe a 2.8K window inside the 3.4K acquisition, to work natively in 3.4K for VFX or to render the 3.4K to 4K and zoom in as required. Either way, it is a significant new option."



ON SET WITH THE M90

Gaffer Benjamin Erdenberger tests the M90, alongside other ARRI M-Series fixtures, on a TV commercial for the Würth industrial group

On this commercial shoot for Würth I got the opportunity to use the M90 for the first time, and to investigate its features and benefits. I was preparing a fairly normal lighting list, which included fixtures such as the ARRILUX 200 Pocket PAR, a couple of 6 kW ARRISUN 60s, the ARRIMAX 18/12 and every other available lamp size from the ARRI M-Series. Just as I was finalizing my list, I got a call from Philipp Mielke, the head of Electric Sun lighting rentals, who asked whether I would like to test the recently arrived M90.

So, I tried out the M90 over the course of two days at four locations: a construction site, a car repair shop, a joiner's workshop and a real Würth store. In fact, I only used the M-series lampheads on this shoot, and the lensless system allowed us to work very quickly and efficiently. I could adjust the light intensity through simple focusing and easily adapt to different situations.

Our first set was the construction site, which had extremely bad access and not enough space for lighting stands. Construction work was continuing throughout the shoot, which made it almost impossible to properly light the set. There were only a couple of suitable positions for the two M90s I had, and for the ARRIMAX fitted with a 1.2 kW lamp, but the ability of these M-Series fixtures to focus down to a very narrow spot meant I was still able to get enough light and accurately illuminate the actors.

The car repair shop was like a dark cell, due to the thick frosted glass and the few fluorescent lights. I decided to put our two M90s and the ARRIMAX outside, and to illuminate the set through the window. We were shooting a 280° angle of view, so there was barely any room to put lighting equipment inside. Fill light had to come in from outside, which I achieved by placing a pair of M40 lights low on the ground and pointing them towards the interior ceiling.

I did manage to put two M18s inside and punched them through a thick diffusion frame, creating a homogeneous, natural-looking light that brought up the levels enough for the camera to film the outside through the roller doors.

The carpenter's workshop had a large window down one side, which gave me the opportunity to illuminate through it with a key light made up of the ARRIMAX and the two M90s. The opposite side of the workshop was lit by three M18s coming through a high window. Due to their very good spot, the M18 lampheads gave me

“The lensless system allowed us to work very quickly and efficiently.”

MAIN FEATURES

- New 9,000 W power class
- Superior light quality via MAX Technology
- Can use either a 9,000 or 6,000 W lamp
- As small and lightweight as a 6K PAR
- Light output close to a 12K PAR
- Focusable from 16° up to 49°
- Can be operated at 1,000 Hz

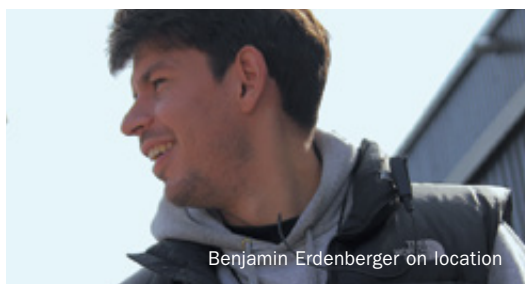


maximum light intensity even with the large distance and the small channeling through the window. Gentle fill was provided by stretching a silk canvas across the window. The overall result was completely natural and we could move freely inside, using nothing more than light diffusion frames and white bounce to brighten the backlight.

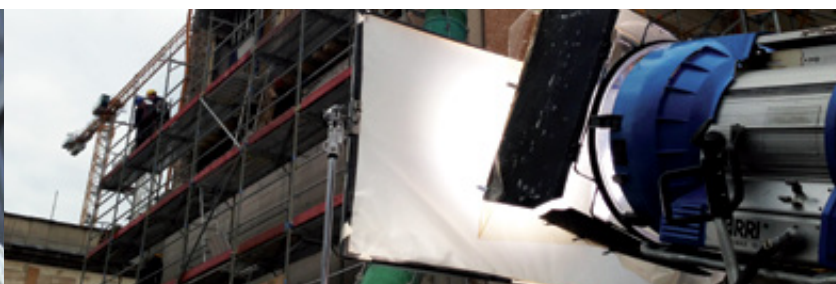
Generally I am totally satisfied with the M-Series and the M90 fills the gap not only with the lamp power, but also with the handling and workflow. The ARRIMAX requires at least three people to work with it effectively and to build it up quickly on the set, whereas the M90 provides the benefits of the ARRIMAX and can be quickly prepared for set by just two people. A four-man team can actually

set up two M90s in the same time that is needed to prepare one ARRIMAX, which means double the amount of lamps and thus more possibilities, without more effort.

Another huge advantage is that on very tightly scheduled shoots with many changes of lighting setup, you can decide whether to install a 63 A or 32 A power network, depending on the time available and the lamp performance required.



Benjamin Erdenberger on location



PROTOTYPE MOTION SCENE CAMERA



ARRI presents a radical new camera that could one day change VFX forever

At IBC 2013 ARRI is presenting the results achieved to date by SCENE, a ground-breaking European research project. On display at the IBC Future Zone booth is the ARRI ALEXA SCENE prototype, an RGB+Z camera that couples an ALEXA Studio with a time-of-flight camera, allowing it to capture RGB images fused with depth information on the Z-axis.

By delivering synchronized video data and depth data, the camera will permit video images to be manipulated in the same way

as CGI; work by project partners will allow CGI models to be animated with all the naturalism of real actors and real locations. This innovative fusion of image-based and computer graphic information with metadata delivers an inherently 3D, spatio-temporally consistent worldview, opening up exciting new possibilities in visual effects and other fields.

The on-going SCENE project brings together nine industry-leading partners from Spain, Germany, the UK, Belgium and France,

covering the value chain from creative media production, through technology research and product innovation, to the market. Their common goal is to develop novel representations and tools for digital media beyond sample-based (video) or model-based (graphics) systems, and to help prepare for industry acceptance and adoption of this new technology. A non-profit SCENE Association will promote the format and coordinate standardization activities after completion of the project.

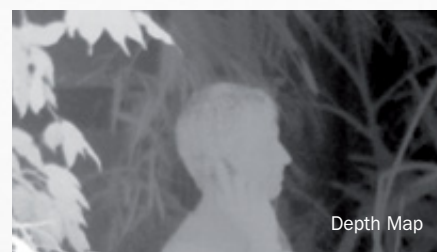
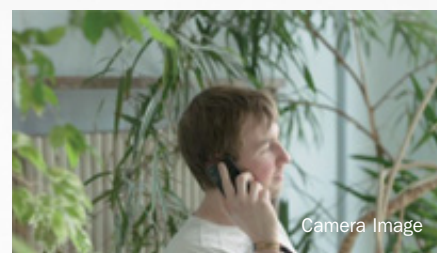
The experimental prototype at IBC is a set-ready RGB+Z camera equipped with the newly-developed integrated time-of-flight sensor and capable of recording RGB and Z information synchronously. Both image sensing devices capture their respective images through a common entrance pupil, resulting in a naturally occlusion-free representation of RGB and Z video, with the same field of view. Special hardware, optics, electronics and software have been built to adapt the ALEXA Studio into

what might be termed the first motion scene camera.

Dr. Johannes Steurer, ARRI's Principal Research & Development Engineer, comments: "We are very proud to present our motion scene camera to the public at this year's IBC show. Even though it is still a prototype we are confident that the postproduction industry will be highly interested in the new possibilities this technology offers. Compositing, color grading, keying and many more postproduction tasks

can be facilitated by our new camera. It provides cutting-edge, high resolution RGB images with fully synchronized depth maps, where both are taken through the same lens and hence feature a parallax-free 3D image of the scene."

The research leading to these results has received funding from the European Commission's Seventh Framework Programme under the project SCENE.



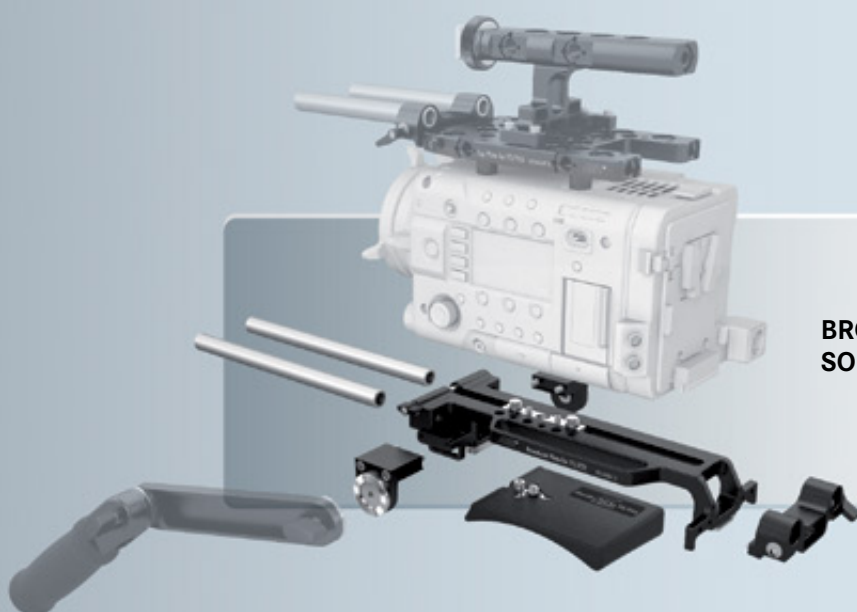
ALEXA MOTION SCENE CAMERA

- Equipped with depth-sensing capabilities
- Synchronizes video and depth data
- Fuses appearance and depth information
- Optimizes the image for a clean scene representation
- Helps achieve photo-real visual effects

LATEST PRO CAMERA ACCESSORIES

ARRI's camera-independent accessory range offers sturdy, versatile solutions

Photo: Alex Falk



BROADCAST PLATE FOR SONY F5/F55

The broadcast plate is a lightweight and highly adjustable solution for documentary-style productions. It mounts on all quick-release tripod adapters commonly used in the broadcast industry and is compatible with existing ARRI accessories dedicated to the F5/F55.

The rosettes available for the broadcast plate are of an extended design, in order to clear the quick-release tripod adapter. Similarly, the ARRI shoulder pad – which can be adjusted independently of the broadcast plate – will not interfere with the quick-release tripod adapter.

A 15 mm LWS console, as used on the front of the top plate for F5/F55, can be attached to the back of the broadcast plate for rear-mounted accessories such as external recorders, digital senders or additional batteries.

START/STOP CABLE AND HANDGRIP FOR SONY F5/F55



This cable enables start/stop functionality on the Sony F5/F55 cameras. It is available as an individual item or as a set with the ARRI lightweight handgrip on/off, into which it fits.

**UNIVERSAL AND LIGHTWEIGHT
BRIDGE SUPPORT UBS-2
AND LBS-2**



With the release of the UBS-2 and LBS-2, ARRI's bridge supports are now available with hard-mounted rosettes for any rosette-based handheld set; they attach to their respective rods via a strong, reliable and maintenance-free clamping mechanism.

**MBP-3 ADAPTER
PLATE FOR
DIGITAL BOLEX**



The new 16 mm-format digital camera that started life as a Kickstarter project is now compatible with the MBP-3 and ARRI cage system. If the camera is fitted with the Hot Rod® PL mount for Digital Bolex, ARRI's base plate adapter supports the PL mount in order to provide additional stability when working with longer, heavier lenses.

**MBP-3 ADAPTER PLATE
FOR BLACKMAGIC
POCKET CAMERA**



This diminutive camera from Blackmagic now benefits from its own ARRI base plate adapter and Cage Hot Shoe CHS-4 top support for maximum solidity when using larger lenses. Coupled with a lens adapter, this enables the Pocket Camera to explore classic Super 16 lenses with industry-standard support and compatibility.



**BOTTOM PLATES
300/450/600
12"/18"/24"**

The classic ARRI 300 mm bottom plate has been redesigned to be 25% lighter and more comfortable, yet just as strong. Two new balance plate sizes have been introduced:

450 mm for a greater balance adjustment span; and 600 mm, with 15 mm or 19 mm studio rod support brackets (RSB-15 or RSB-19), for long zoom lenses.

BRIDGE PLATE SLED BPS-2



The BPS-2 is aimed at lighter camera rigs using 15 mm lightweight support systems but still requiring a sliding base plate for balance optimization. Compatible with all

ARRI bottom plates of all generations, it will fit any camera with a BP-3/5/8/9 interface, such as the plate for Sony F5/F55 or the ARRI Mini Base Plate MBP-3.

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ARRIRAW

ARRI's ALEXA camera family first became ARRIRAW-enabled early in 2011, with feature films such as *Extremely Loud and Incredibly Close* pioneering the use of the uncompressed, uncompromised and unencrypted format for big screen exhibition. Since then ARRIRAW has gone from strength to strength, with image improvements and a significant reduction in recording and processing costs resulting in it becoming the preferred digital capture format for applications where the highest image quality is demanded.

VFX ADOPTION

Many recent VFX-heavy feature films, including *The Avengers*, *World War Z* and Alfonso Cuarón's *Gravity*, were captured in ARRIRAW using spherical lenses, allowing the full resolution of a 16:9 2880 x 1620 ARRIRAW frame to be used for plate shots and compositing. With ALEXA in 4:3 mode (still using spherical lens capture), a 2880 x 2160 image is recorded, providing even more flexibility by allowing camera tracking markers to be placed outside of the final finishing area of the image. The extra vertical area also permits repositioning and stabilization to be performed in postproduction without compromising quality. Features such as *Iron Man 3* and *Thor 2: The Dark World* have been captured using spherical lenses in 4:3 sensor mode, while *Man of Tai Chi* was shot with anamorphic lenses in 4:3 mode and maintained a full-resolution workflow right through post.

ALEXA XT AND XR ARRIRAW

In 2013 ARRIRAW took a big step forward with the advent of the ALEXA XR in-camera recording system, which built on the established, robust and efficient Codex



The ARRIRAW Converter software processing footage from an XR Capture Drive

FROM STRENGTH TO STRENGTH

The ARRIRAW format continues to improve, offering the best recording option now, and into the future

ARRIRAW workflow. This new system, complete with high capacity, lightning-fast XR Capture Drives, is standard on all new ALEXA XT cameras, and is also available as an upgrade for all ALEXA Classic cameras. XR-recorded ARRIRAW allows for frame rates of up to 120 fps to be recorded in-camera, without any external recording hardware. This means that ALEXA can now be regarded as a true 'all-in-one' motion picture capture solution on set.

ARRI PARTNER PROGRAM

The ARRI Partner Program is a technology sharing program that ARRI maintains with the world's most creative software, hardware and postproduction companies, opening up ALEXA's image processing technology and making it freely available (under agreement) for integration within third-party postproduction tools. Most of the 20-plus members of the program have been certified, which means

that the ARRIRAW processing functions implemented in their products satisfy ARRI image quality standards. The program ensures that wherever ARRIRAW is captured, the recording, ingest, dailies and finishing processes can all be performed reliably and to the highest standards.

NEW ARRIRAW CONVERTER

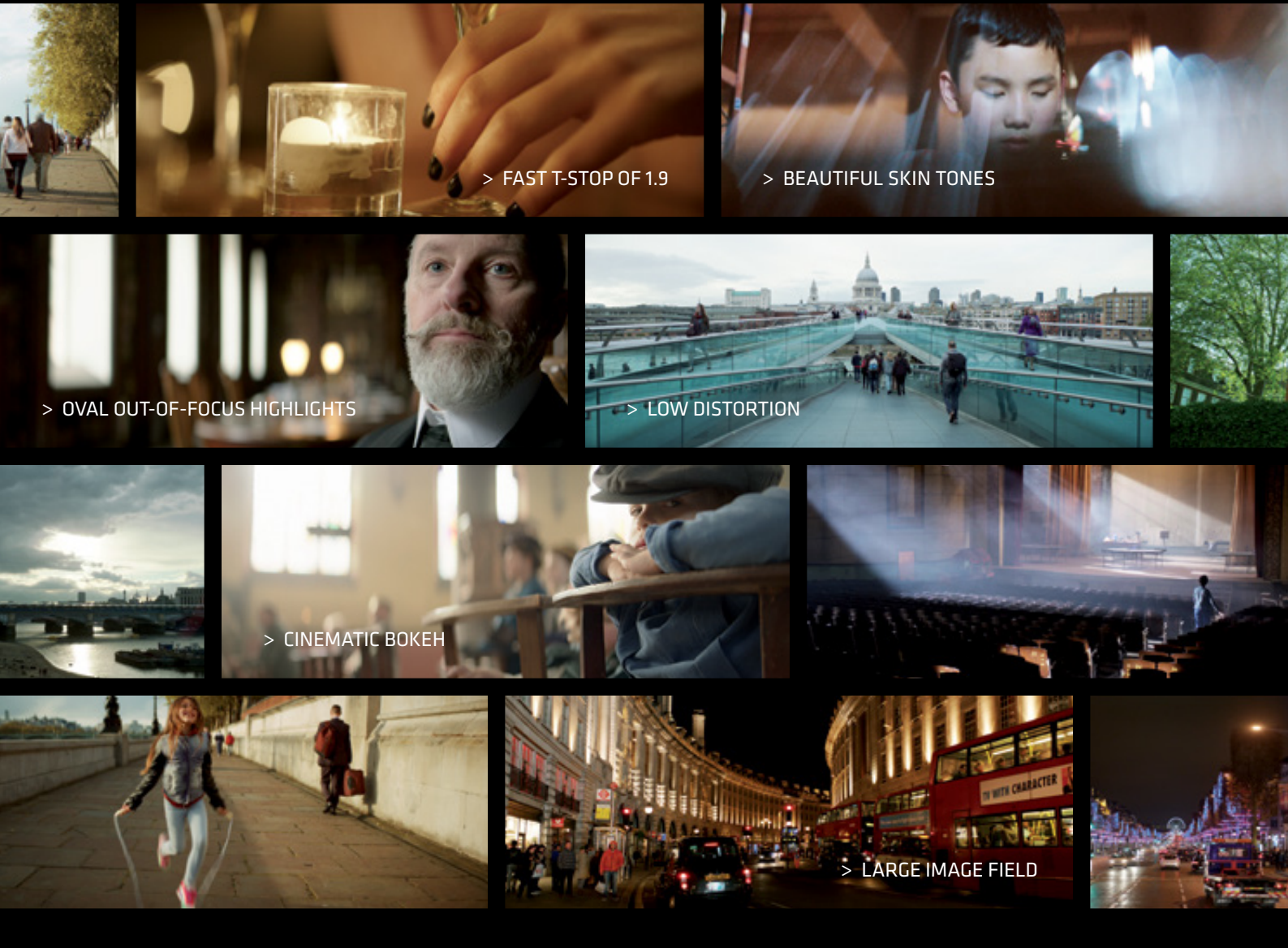
In September 2013 ARRI is releasing a new version of the ARRIRAW Converter (ARC), a free-of-charge reference tool for customers and partners that contains the latest ARRIRAW image processing technology. The new ARC 3.0 has been integrated with the ARRI Meta Extractor and ARRI Look Creator to provide a powerful, self-contained tool that can be used for camera testing, QC or even small-scale productions.

THE FUTURE

In 2013, the majority of digitally captured major motion pictures released worldwide used ALEXA and of these, the vast majority recorded ARRIRAW. The growth in ARRIRAW acquisition will continue into 2014 and beyond, with the popularity of anamorphic capture increasing appreciation of the ALEXA XT's 4:3 sensor. On-going expansion of the ARRI Partner Program and the appearance of more certified products will help ARRIRAW remain the first choice for high quality images that look incredible in any distribution format or resolution.



Visit the ARRI workflow webpages:
www.arri.com/alexa/workflow



> FAST T-STOP OF 1.9

> BEAUTIFUL SKIN TONES

> OVAL OUT-OF-FOCUS HIGHLIGHTS

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