



MOVIE MACHINE

THE ART AND TECHNOLOGY OF DIGITAL FILMMAKING



ISSUE 7 - NOVEMBER 2013

MONTHLY ROUNDUP OF NEWS AND TECHNOLOGY FOR DIGITAL FILMMAKERS
POCKET CAMERA RAW RECORDING * DIGITAL BOLEX * DEN LENNIE ON THE PMW-F5



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James Tonkin discusses why he chose RED Epic as an essential part of his shooting kit

WELCOME TO MOVIE MACHINE MAGAZINE ISSUE 7

MOVIE MACHINE DIGITAL CINEMA FESTIVAL

When I announced the Movie Machine Digital Cinema Festival in late October, I had no idea what the response would be. Would there be any entries – was there any appetite for this kind of thing in the modern world.

I'm pleased to say we have had a fantastic response with entries from all over the world: movie submissions from the UK, USA, France, Germany, Italy, Switzerland, Russia, Brazil, the Philippines, Thailand, Canada, Australia, Columbia, from far flung corners of the world to where one would least expect to find passionate filmmakers, yet the same passion for filmmaking exists everywhere. This is what is obvious from the movies submitted.

And there is good content to view! We have many films of seriously high quality, running between 1 and 5 minutes.

On the night of Dec. 4 at the Prince Charles Cinema, Leicester Square, London we will show the 10 best films.

The judges, there are 5 in total, are busy watching, viewing and putting in their verdict for each of the films. The films are judged on cinematic merits including execution of story, camerawork, lighting, use of sound and editing technique.



The winner of the festival will be announced the evening of December 4, at the Prince Charles Cinema, Leicester Square, London.

1st Prize for best film is a Blackmagic Cinema Camera, courtesy of Holdan.

Register now to attend the Movie Machine Digital Cinema Festival and see the best 10 films shown on the big screen – along with guest speakers, cinema presentations, and footage from many different cameras, including: the Blackmagic Cinema Camera, Blackmagic Pocket Camera, Digital Bolex, Canon 5D Mark III, Canon C100, Sony PMW-F3, PMW-F5, RED Epic and more! Everything from “affordable cinema cameras” to “not-so-affordable” cinema cameras. <http://www.moviemachine.tv/digital-cinema-festival/>

Hope to see you in the heart of London, 7.30pm, Dec, 4.

For those wishing to attend the event in Leicester Square we can offer a 50% discount to **Movie Machine Magazine subscribers** (first 25 signups only!)

REGISTER ONLINE HERE FOR 50% DISCOUNT >>

Guest Speakers & Cinema Presentations:

Show kicks off at 7.30pm

- Why we need RAW, Why we need compressed - **Rick Young**
- Cinema Presentation, **Den Lennie**: shooting on location with the PMW-F5
- Guest speakers: 2 amazing filmmakers - **Josh Fortune** and **Rob Allen**. Winners of the Smoke & Mirrors 48 hour film festival.
- Cinema Presentation: **James Tonkin**, filming with RED Epic
- Guest speaker, **Matt Davis**: affordable Cinema Production with the Canon C100

DIGITAL CINEMA FESTIVAL



DIGITAL CINEMA FESTIVAL

LEICESTER SQUARE | LONDON | DECEMBER 4TH | 19:30

Movie Machine is proud to announce we will be running a Digital Cinema Festival, for one night only, at the Prince Charles Cinema in Leicester, Square London, December 4, 2013.



50% DISCOUNT TO MOVIE MACHINE MAGAZINE SUBSCRIBERS (FIRST 25 SIGNUPS ONLY!)

This will be a jam-packed evening showing off the 10 best films submitted to the Festival, and featuring a full lineup of guest speakers and cinema presentations about producing content for the big screen.

19:30	Why we need RAW; Why we need compressed: shooting with the Blackmagic Camera & shooting with the PMW-F3 Rick Young		20:00	Cinema Presentation: On location with Den Lennie and the Sony PMW-F5	
20:30	Guest Speakers: Josh Fortune (director) and supported by Rob Allison (VFX).		21:20	Cinema Presentation: Shooting with RED Epic with James Tonkin	
21:35	Demo of Edius Pro 7 editing software		22:10	Guest Speaker: Matt Davis. Shooting affordable cinema with the Canon C100	

The 10 best entries will be shown on the evening of December 4, at the Prince Charles Cinema in Leicester Square, London. Doors open at 7.30pm.

ATTEND THE EVENT!

DON'T MISS IT! ONE NIGHT ONLY

MOVIE MACHINE DIGITAL CINEMA FESTIVAL

Dec. 4, PRINCE CHARLES CINEMA, LEICESTER SQUARE, LONDON

Prince Charles Cinema - December 4th





DEN LENNIE - ON LOCATION WITH THE SONY PMW-F5



WATCH THE
VIDEO >>

A preview of the Den Lennie's Cinema Presentation to be shown at the Movie Machine Digital Cinema Festival, Dec 4, at the Prince Charles Cinema, Leicester Square, London. Featuring interview content with Den, about why he chose the PMW-F5, his choice of lenses, and what you need to know to capture cinematic images, regardless of which camera you choose.

JAMES TONKIN - SHOOTING WITH RED EPIC



WATCH THE
VIDEO >>

A preview of James Tonkin's cinema presentation, featuring footage filmed with RED Epic, on the big screen. London based filmmaker, James Tonkin of Hangman Studios, tells why he purchased a RED Epic. James has worked with some of the hottest acts in the world, including Robbie Williams, The Rolling Stones, Coldplay and many UK and international companies.

LED LIGHTING WITH DEDOLIGHT



WATCH THE
VIDEO >>

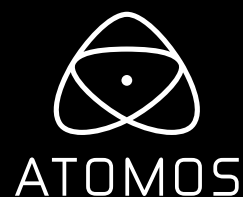
Dedo Weigert, Cinematographer and inventor of the Dedo lighting system, explains why the big push towards LED lighting for the mobile crews. There has been a revolution in lighting in recent years. LED lighting, once seen as inferior to traditional lights, has made huge advancements. Many mobile crews today shun powered lights choosing only to use low power LED lights.

MOVIE MACHINE DIGITAL CINEMA FESTIVAL, LONDON DEC. 4, 2013



WATCH THE
VIDEO >>

Anyone can attend the Movie Machine event on the evening of December 4, at the Prince Charles Cinema, Leicester Square, London. The Movie Machine Digital Cinema Festival will feature guest speakers, cinema presentations, and footage from many different cameras shown on the big screen, including: the Blackmagic Cinema, Blackmagic Pocket Camera, Digital Bolex, Canon 5D Mark III, Canon C100, Sony PMW-F3, PMW-F5, RED Epic and more!



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BLACKMAGIC DESIGN RELEASES RAW RECORDING FOR BLACKMAGIC POCKET CINEMA CAMERA!



“Adding CinemaDNG RAW recording to the Blackmagic Pocket Cinema Camera is incredible,” said Grant Petty, CEO, Blackmagic Design. “It’s amazing that we are now able to record the highest quality RAW images on such small SD cards! We think customers are really going to enjoy the extended creative flexibility that color grading wide dynamic range RAW files will bring to their productions!”

Blackmagic Design has released Blackmagic Camera 1.5 software which adds new 12-bit Log CinemaDNG RAW recording to the popular Pocket Cinema Camera. Blackmagic Camera 1.5 update is available now free of charge from the Blackmagic Design website.

The new Blackmagic Camera 1.5 software update adds CinemaDNG RAW file recording so customers can now capture super wide dynamic range in a single file. Wide dynamic range RAW image recording allows users to capture the brightest highlights and the darkest shadows simultaneously, capturing more of the scene than is possible with a regular video camera. CinemaDNG RAW files give users incredible freedom to be able to adjust the exposure manually during color correction with Davinci Resolve allowing more flexibility for incredible feature film look color grading.

The Blackmagic Pocket Cinema Camera uses the open standard lossless compressed version of CinemaDNG RAW. CinemaDNG RAW lossless compression works

in a similar way as a ZIP file where the RAW files are compressed during recording without the loss of any part of the image, so all images retain the same quality when they are decompressed.

That means customers get back the mathematically perfect high quality RAW file image that they recorded.

High quality lossless CinemaDNG files are fully compatible with DaVinci Resolve 10 for seamless color grading and editing workflows.

Lossless CinemaDNG RAW files are an open standard however not all video applications can open them, although those that can are increasing all the time. Customers can download the free Davinci Resolve Lite and transcode to popular editing formats like ProRes and DNxHD for compatibility and round tripping with editing software like Final Cut Pro 7®, Final Cut Pro X®, Avid® Media Composer® and Adobe Premier Pro®.

With this new Blackmagic Camera 1.5 update, the Blackmagic Pocket Cinema Camera gives customers the choice of recording CinemaDNG RAW or high quality ProRes 422 (HQ) in video or film mode. Cinematographers can simply remove the SD card from the camera, insert it into a laptop or computer, open the file and immediately start editing or color correcting media in any location! Working directly from the SD card eliminates the time wasted copying files and dramatically speeds up post production workflows.

Featuring a high resolution 1080HD Super 16mm size sensor, wide 13 stops of dynamic range, MFT lens compatibility, LCD screen for camera menus, metadata entry and monitoring, standard connections and more in a compact size, the Blackmagic Pocket Cinema Camera has everything users need to shoot high quality digital film images in even the most remote or difficult places.

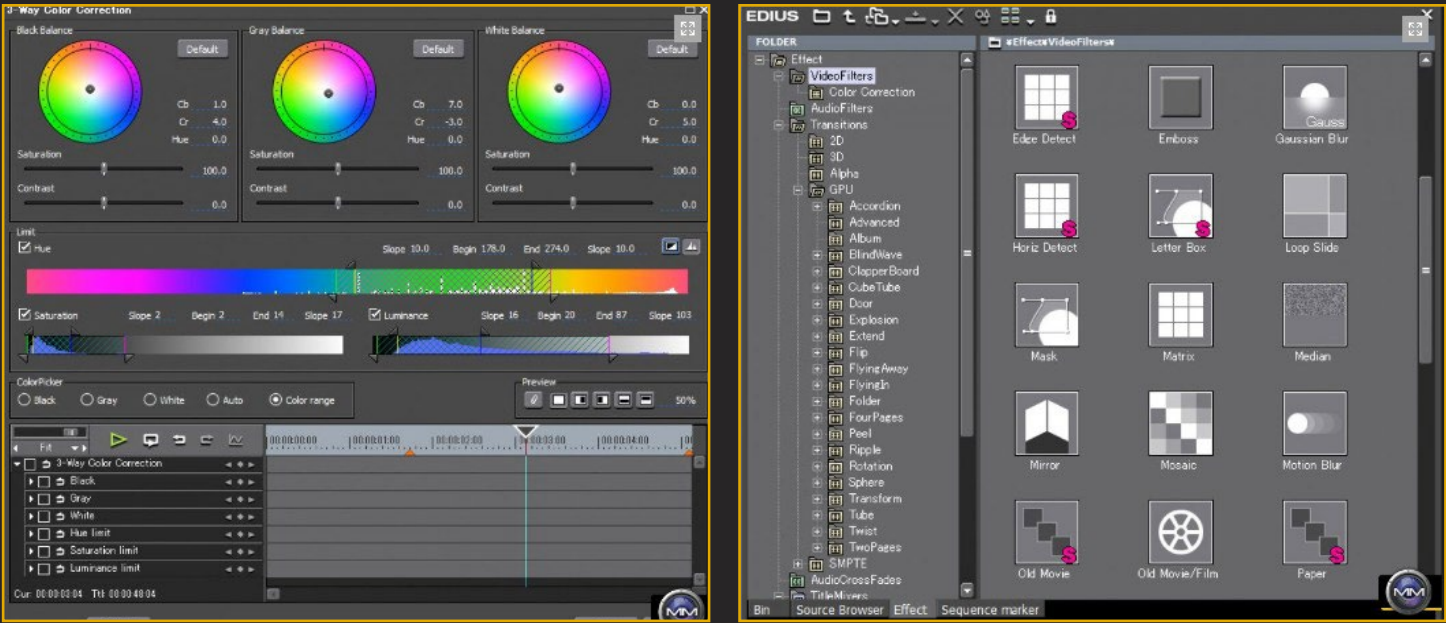
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GRASS VALLEY DEMONSTRATES REAL-TIME 8K EDITING WITH EDIUS



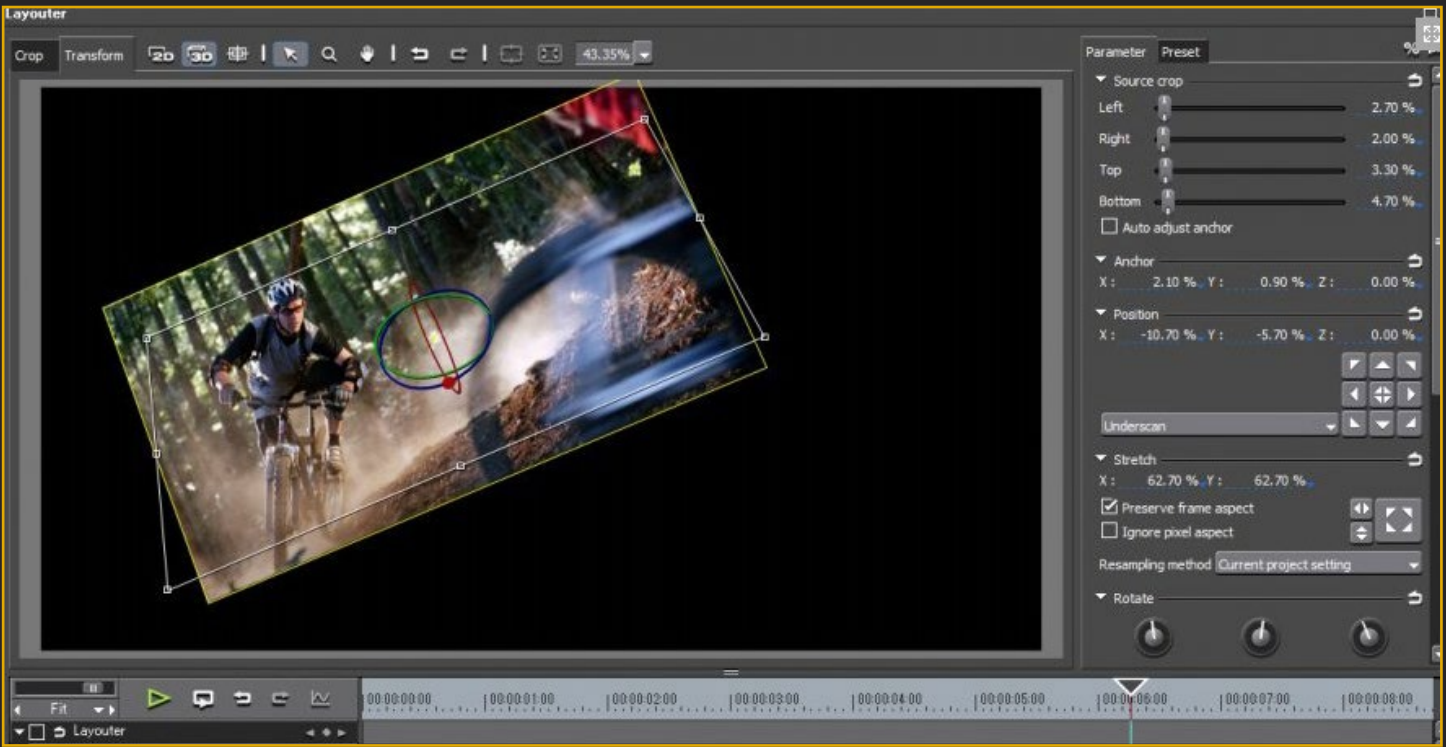
Support for editing super high-resolution video in EDIUS is made possible by Grass Valley's HQX Codec, which dramatically improves editing response time and is the key technology behind real-time editing. Supporting 4K as well as 8K in the future, with a native 64-bit architecture.



Grass Valley® has previewed 8K support for its EDIUS® 7 multifunction nonlinear editing software at the International Broadcast Equipment Exhibition (InterBEE) at booth 7316. The demonstration follows recent announcements that the 2020 Summer Games in Tokyo, Japan, will be broadcast in 8K 16 times the resolution of today's HD format.

Support for editing super high-resolution video in EDIUS is made possible by Grass Valley's HQX Codec, which dramatically improves editing response time and is the key technology behind real-time editing. Supporting 4K as well as 8K in the future, with a native 64-bit architecture, EDIUS 7 is the latest version of Grass Valley's editing software and is ideal for a variety of production and broadcast environments. It's compatible with all major file formats, and can edit in real-time without rendering.

"EDIUS is widely used around the world, and we're excited to be offering demonstrations of future support for 8K," said Mike Cronk, Senior Vice President, Marketing, Grass Valley. "In this exciting technical introduction, we will preview 8K video clips that demonstrate EDIUS's capabilities."



BLACKMAGIC DESIGN SHIPS DAVINCI RESOLVE 10



“Were extremely excited to be releasing DaVinci Resolve 10 today, which has been a massive update with the addition of new editing, temporal processing, OpenFX plug-ins and powerful onset tools,” said Grant Petty, CEO, Blackmagic Design. “With over 50 new features in DaVinci Resolve 10, this is the most exciting update in the entire 30 year history of DaVinci.”

Blackmagic Design has announced the release of DaVinci Resolve 10, available now for download free of charge for all existing DaVinci Resolve customers. DaVinci Resolve 10 is a major upgrade that includes innovative on set tools, new editing features, support for OpenFX plug-ins and more.

Also available for download is the free DaVinci Resolve Lite edition for both Mac OS X and Windows. DaVinci Resolve Lite now includes the addition of Ultra HD resolutions and additional GPU support.

DaVinci Resolve 10 has been developed to simplify the integration of different software tools used in the film and television industry, allowing timelines to be moved into and out of DaVinci Resolve and other edit software such as Final Cut Pro, Avid and Premiere Pro. As workflows have changed, more post production is now started on set during the shoot. Lighting and other aspects of the shoot are also often verified based on color correction checks and DaVinci Resolve 10 has new powerful tools to manage this process. The new Resolve Live feature allows color grading direct from the video input live with full creative power such as primaries, secondaries, power windows, custom curves and more. Grades can be stored and then relinked when the camera files are loaded.

DaVinci Resolve 10 includes enhanced editing features and allows online finishing of edits performed in other popular editing software. This means multiple

users can submit scenes in large complex jobs from the applications they prefer to use, and DaVinci Resolve 10 can finish online from the original camera RAW files for dramatically better quality than would be available when finishing in a standard NLE software package. If any scene needs additional editing, it can be moved back to the NLE software letting editors use the tools they love.

New editing features include full multi track editing with 16 channels of audio per clip and unlimited video and audio tracks in the timeline. Audio can be synced or trimmed and dragged independently to the timeline. Other new editing features include extensive ripple, roll, slide and slip clip trimming support which display dynamically on the timeline and viewer. The viewer also allows split screen display to show in and out points of adjacent clips.

A good example of the online editing process is when an edit has been completed in Final Cut Pro X that includes mixed frame rates, mixed media types, multiple audio tracks and even color corrections. DaVinci Resolve 10 will support import of that project via XML and will online it including full translation of all these elements while rendering the master from the original RAW camera files. This means that Final Cut Pro X editors can use DaVinci Resolve 10 as the tool to online their work for cinema release and generate the Digital Cinema Package file directly from the camera RAW files.

Editing in DaVinci Resolve 10 also includes a powerful title tool with static, lower third, scroll and crawl titles with multiple fonts, size, drop shadow and XY positioning. Timelines in DaVinci Resolve 10 also include the support of compound clips with multiple elements including multiple video and audio tracks. Also, DaVinci Resolve 10 can be used for stereoscopic 3D projects with full support for left and right eye clips in the media pool and the edit timeline. Using timecode and reel name, DaVinci Resolve 10 will automatically associate the left and right eye of the stereoscopic clips.

Color correction features have been upgraded in DaVinci Resolve 10, including support for industry standard OpenFX plug ins with an unlimited number of plug ins per clip. There are now unlimited power windows per corrector node and the new Gradient PowerWindow lets colorists quickly add a gradient across the image. Other new color correction features include copy and paste of tracking data, motion effects including spatial and temporal noise reduction and motion blur effects.

For project delivery, DaVinci Resolve 10 includes full audio track visibility in the deliver window timeline as well as EasyDCP integration so users can render directly from their project timeline into a Digital Cinema Package for release to theaters. Because DaVinci Resolve 10 allows rendering from the camera RAW file directly to the Digital Cinema Package files in the highest quality 32 bit float, there is simply no better quality possible for a cinema release master. Customers simply need to purchase a license from EasyDCP to enable this feature.

DaVinci Resolve 10 also supports additional media types and continues to be the industry leader in file based workflows because it operates with virtually all video file types available. New formats include JPEG 2000 decoding and encoding, AVI clip decoding, playback and more.

WORTH WATCHING: MAKING THE NEW MAC PRO



As we eagerly await the release of the new MacPro, Apple have released a fascinating video showing how the new MacPro is constructed. From the machining of the raw materials, putting together of the electronic components, to the final assembly and construction of the finished unit.



CONVERGENT DESIGN SHIPS ODYSSEY7Q: 7.7 OLED MONITOR; 2K AND 4K RECORDER

As a recorder, Odyssey7Q supports a wide range of recording formats. Uncompressed RGB HD video is included, with compressed HD video soon to be added in a free firmware update. For RAW capture, ARRIRAW (4:3 and 16:9), Canon 4K Raw and Sony FS700 2K RAW are available as purchase or rental options.

[READ THE FULL STORY >](#)



CALDIGIT SHIPS THUNDERBOLT STATION

The beauty of the CalDigit Thunderbolt Station is that you can finally connect and disconnect all your peripheral devices with just one Thunderbolt cable. Whether you're connecting external hard drives, monitors, ethernet, or audio speakers, all you have to do when heading out for the day is unplug one single cable, said Kosta Panagos, Director of Marketing at CalDigit.

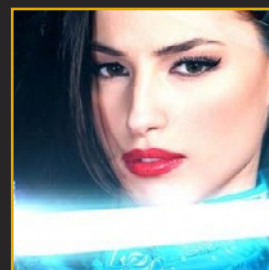
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BLACKMAGIC DESIGN ANNOUNCE ULTRASTUDIO 4K WITH THUNDERBOLT 2 TECHNOLOGY

Now with the incredible 20 Gb/s speed of Thunderbolt 2, UltraStudio 4K has even more bandwidth to work with higher quality video and frame rates. Now customers will be able to capture and playback Ultra HD 4K YUV video at 60 frames per second and Ultra HD 4K RGB video at 30 frames per second via the advanced 6G-SDI video connections.

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XEFFECTS TOOLKIT FOR FCPX: 53 KILLER UTILITY PLUGINS BY INDUSTRIAL DESIGN XEFFECTS

Toolkit is a pack of 53 utility plugins and tools that make the hard tasks in editing easier. The set includes tools such as Subtitles, Caption Safe Area, Arrow Highlight, Telestrator, Variable Splits, Auto Zoom, Auto Rotate, Guides, 3D Spotlight, 3D Perspective, Pillarbox Shoulders, Alpha Adjust, RGB Channel Adjust, Channel Swap and many more.

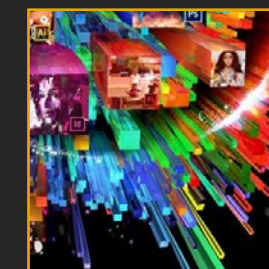
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FILMCONVERT NOW WORKS WITH ALL VERSIONS OF DAVINCI RESOLVE; NEW CAMERA SUPPORT; FEATURES; AND MORE ON THE WAY.

FilmConvert, regarded as the "best stock emulation" program on the planet, has now added a range of features and workflow possibilities. Using an OFX plugin FilmConvert will now work with all versions of DaVinci Resolve; many of the latest cameras are now supported; new features for integration with Premiere Pro and After Effects; and improvements for FCPX are coming soon!

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MAJOR UPDATES TO ADOBE VIDEO APPS NOW AVAILABLE

The updates, which were initially previewed in September at the International Broadcasting Convention (IBC), include a direct link color pipeline between Adobe Premiere Pro CC and Adobe SpeedGrade CC, expanded native support for brilliant visuals including 4K high frame rate content, a new mask tracker in Adobe After Effects, the Adobe Prelude CC Live Logger iPad app and many other feature enhancements.

[READ THE FULL STORY >](#)



TELESTREAM WIRECAST 5 NOW AVAILABLE

Telestream®, has released a major upgrade for its Wirecast® live streaming production software. Wirecast 5 adds enhanced encoding and playback options; a new, more efficient user interface (UI); high-quality screen capture; and more flexible input/output integrations for easier, high-quality live streaming. Wirecast 5 is now available with x264 encoding, a redesigned user interface, program feed output and much more.

[READ THE FULL STORY >](#)



TELESTREAM RELEASES NEW CLOSED CAPTIONING SOFTWARE PRODUCTS

Telestream® has announced a major version 6.0 release for its MacCaption and CaptionMaker closed captioning software products. With this release Telestream has simplified the product offerings with new pricing options and configurations. This is the first release since Telestream acquired CPC and its award-winning closed captioning products in August.

[READ THE FULL STORY >](#)



INTERVIEW WITH JOE RUBINSTEIN, CEO DIGITAL BOLEX

With Digital Bolex expecting to have shipped their first cameras by the end of November, the availability of high quality, affordable cinema cameras takes a new turn in the evolution of digital cinematography. The Digital Bolex offers RAW acquisition with key features and advantages over some of the other affordable cinema cameras on the market.

RY: Speaking to Joe Rubinstein, who's the CEO of Digital Bolex. Joe what I want to ask you to begin with is where did this idea come from, to do a camera called the Digital Bolex. We all know what the Bolex is, and it represents something wonderful in film history, so tell me why the Digital Bolex?

JR: Well I was a big fan of 16mm film, or am a big fan of 16mm film, and during my career as an independent director of photography, I shot primarily on 16mm film. A little bit I shot on 35 but really when I was given a choice, I generally shot on 16 or Super 16, and when I tried to transition to the digital world there wasn't a good camera for me to transition with. There wasn't anything, a digital camera that gave me the same feeling and let me use the same lenses and works like a digital 16mm camera... or at least one that I could afford. So early when I was trying to do this transition, there was just nothing, so I got the idea that I thought there should be that, a digital 16mm camera that has a lot of the same properties that you would get with a 16mm camera, including obviously the frame size and things like that, and I wanted it to be kind of a simple camera that was small and hand-holdable, so when I was trying to explain it to other people in the film business, I found that the shortest explanation I could come up with was if I told them it was kind of like a Bolex but digital, they would instantly know what I was talking about. So that's when I saw calling it a Digital Bolex would be the right way to go.

RY: Well it certainly does conjure up in the mind a whole vision, which is something which is of the past but also of the present – digital – Bolex – so it does say what it is I think, and I haven't even seen it, so that's my comment.

Now how difficult has the journey been from conception to the finished release? I know you're very close to having your release models ready?

JR: : It's been a lot more difficult than we anticipated. <Laughs> The sensor that we chose to work with is an analogue sensor and because of that there are some great benefits like global shutter and it really is in colour rendition, but there's also downsides, which are like it's ten times harder to make the firmware on the front end of this camera than for a camera that has CMOS sensors, so it really was a lot more complicated than anybody in our company anticipated, but the results we think it was worth it.

RY: Now when you say the results are worth it, what is that you are seeing? Is it just you're seeing beautiful images?

JR: Yeah, just a very organic and sharp image that is full of colour right out of the gate. A lot of the RAW cameras out there, when you look at the RAW files you kind of have a bit of a green, kind of very flat, boring-looking RAW file, which you can then put some

d16
BOLEX



“IT'S BEEN A LOT MORE DIFFICULT THAN WE ANTICIPATED.”



life into, but it really requires a lot of work. With our camera you really get a very colourful, very nice image right from the RAW file, and a lot of that has to do with the sensor that we chose, and the analogue to digital conversion that we're doing.

RY: Now I'm looking at the spec sheet and the sensor is a Kodak 1 inch CCD so basically what you're saying is the choice of a CCD is actually a big deal in determining the pictures that we get out of the sensor.

JR: yeah! Kodak designed their sensor and they have different data patterns that people use for different reasons and the CCD that they used, or the data pattern that they use on this sensor has very strong saturated colours on it, the actual tiles, little black tiles that are in front of each pixel, the colour saturation is actually stronger than from that, which means that that it's a little less light sensitive, it makes the sensor a little less light sensitive 'cause it's got to go through a stronger coloured black to get to the sensor. But what that also means is you're getting a more pure signal when you do get that light in, and you can drive much stronger, much nicer colours, because of the Bayer filter is stronger and because we get cleaner, purer signals.

RY: Well, all I can say is listening to you speak, it makes me want to explore what this camera is and the only way we're going to know is getting our hands on it. But I will say I've looked at the footage that's on the website and online and it looks remarkable, so good pictures are good pictures. I would say all of your processing and the choice of sensor and everything is what adds up to the overall picture, so listening to you talk I just want to see it and try it – so where are we at and when can we buy these cameras?

JR: We are going to be assembling the first units within the next week or so. We're here in Canada right now, we just received some of the final parts and it looks really good and it looks like we're going to be assembling some units this week. I don't know if we're going to be shipping those units this week or next week, or when we're going to be shipping them exactly. There are a few more firmware things to finish off also, but within the next few weeks we're going to be shipping these units and we're hoping to have our first official pre-sale on the 28th of this month, which is Black Friday as it's known here in the US.

RY: Fantastic. I've got more technical questions. Talk to me about lens options. I know that it takes C-mount lenses and what we would have traditionally used on 16mm cameras.

However, I also have read on the specs that it can use EF lenses, which means Nikon as well via adaptors ... so I guess this is a double question; first of all, what do you prefer to use? Do you use traditional 16mm lenses, and someone like me thinking of a –

JR: yeah, my preference is to use 16mm lenses. They have their own look that you can't really get with other lenses and they're priced correct, they're priced right, you know?

They're often for the same image quality, sharpness and the same coverage, you're only paying half or a quarter of the price of a 35mm lens, so my preference is to use 16mm C-mount lenses, 'cause it's so small and light-weight, or if you're doing a very professional project using the 16mm PL lenses.



RY: But I have to ask the question, which is the fact that I've got so much 35mm glass, if I put it on, however I do it, via adaptors or whatever, what does 35 equal? Is it 2 times or more than 2 times crop factor?

JR: Well ... it's something like 2.7, when you compare it to full frame. Basically two times if you compare it to Super 35 with the standard movie format. If you're comparing it to full-frame then it's a little bit more than 2.7 times.

RY: OK, I've got you, and full-frame is what I do think in. It's just worth knowing because I've got lenses already so you've got to think about what you've got and where you go. However, I have been online looking at the other options for Super 16 and you know, they're out there too, so get whatever you need really.

JR: The thing about Super 16 lenses is they're generally cinema lenses, and obviously full-frame lenses are generally meant for still photography, and they operate very differently. If you have a rack focus with a still photography lens, it can look very, very different than a cinema lens, the way that the bokeh goes out and the way that the transition, it goes on to transitions for in-focus, out-of-focus, and things like that. It really is different, and I highly recommend using cinema lenses when you're trying to create a movie look, because there's several things like that, that your audience doesn't necessarily know they're seeing but their brain picks up on this, they've seen enough movies and they've seen things out of focus enough in movies, that when you do it in a way that is a bit different, it may not read like cinema.

RY: Yes, I hear you. I think it's all there with what you've said but at the same time when you already own lenses, sometimes you just want to try it and see what you get!

JR: Of course. I'm not saying you can't use whatever lenses you want to use on the camera, you of course can, but I guess maybe I'm a little bit of a cinema purist and I really like the way that the cinema lenses work.

RY: That makes sense, but I do have to point out as well, because having been so much into 35mm lenses for still photography, whenever I've used them on a camera which has an increased crop factor, I actually quite like that because if I want to film birds, if I want to film the moon, if I want to film anything with the big telephoto capability, it actually helps and I like that.

JR: Yeah, that's brilliant!

RY: So there's plusses and minuses, but I still appreciate that using lenses made for the format, there's going to be something special about those.

OK ... now I see it does 2K, 1920x1080, 720, these are all fantastic formats and I know it does CinemaDNG and I'm not completely clear, so do you do CinemaDNG in all those formats, meaning 2K, 1920x1080 and 720?

JR: Exactly.

RY: Fantastic! That's very versatile.

JR: Yeah. It's probably the only format we record in is CinemaDNG but yeah, it can do it in all those different resolutions.

RY: OK, and I see that it says that there's some RAW conversion software included, so what is the RAW conversion software?

JR: We went with a company called Pomfort that makes a product called Silver Stack and they built us some custom transcoding software where you can go very quickly and easily from your RAW file to get to various types of QuickTime levels so that you can be in editing. All RAW has to be converted, to QuickTime generally, before editing. I think there's a couple of programmes out there. I think Premier CC now let you import DnG sequences, but in general you want to convert to a QuickTime format before you edit, and our software lets you get there very quickly.

RY: That's great. When I saw it listed that's what I was hoping it was going to be, a real quick, easy conversion software. And can you manipulate before you output?

JR: Yeah. You can. And you have a lot of control over the colour and it's very easy to use. A lot of the colour, the transcoding, colour-tracking software is intended for use for final colour correction so it's very complicated and you really have to be almost a really efficient colourist in order to be able to get a good image out of these programmes with these RAW files, but the combination of our camera and our software, we put a lot of time into getting good colour in camera. So just loaded it into the software, it already looks good. You can manipulate it a lot, but if you don't want to, you can manipulate it just a little and have a good image right away.

RY: So what does it mean – does it come in with the look baked in, or does it come in with the look and you can switch the look on and off and then take it from whatever you want it to be?





JR: Not that it's baked in, but it comes in with a sort of neutral look, already looks good versus the neutral look being like weird and green and flat. Does that make sense? So you still have just as much control with the image, you can push it around just as much as any other RAW, but your starting point, where you begin already looks good.

RY: OK, that's fantastic. And coming back to what we talked about before when we mentioned that you could do RAW at 2K, 1920x1080, 720, all these different resolutions, it would make sense in my mind, and this is the question, that if you are doing 720 you're not consuming anywhere near the amount of space that you would if you were doing 1920x1080 or 2K; is that correct?

JR: Yes, definitely. 720 files are much, much smaller. I don't know the exact numbers, but I guess probably a quarter the size.

RY: But that's fantastic 'cause you get the power of RAW but you can reduce your file size and make your workflow a bit more efficient.

JR: Exactly.

RY: Good, and the other thing, and I must ask you about this, is talk to me about audio on the camera. Now I can see the XLR s, there's phantom power there as well, it seems that you're working very hard to put a camera in the hands of people that can do it all and not have to have too many external accessories.

JR: Yeah. So the audio goes through some very nice analogue to digital convertors and it can be sampled at up 24 bit 96 kilohertz, which is very high-end for audio recording, and our most recent actually, that we just put up today, has a sample not only of the image as it's being recorded at the same time as the audio, but we also put up just a RAW audio straight out of the camera so you can hear what that sounds like, and people seem to really like it. It's a very clean, very nice audio quality so that you're getting really almost studio quality sound inside the camera.

RY: Fantastic. I assume there's line-in, there's mic level and there's phantom power?



JR: Exactly, there's line-in, mic in and phantom power.

JR: I was just going to say, is the idea that the debayering algorithms that we have today are significantly better than the ones we had five or ten years ago. And the debayering algorithms continue to improve, in fact they've improved just in the past year. In our software you have options of several different debayering algorithms, you can fit the algorithm that you like to your footage, and in another five or ten years the algorithms will be significantly better than they are today. Therefore, if you have shot in RAW that means that you can debayer your image five years, ten years from now and still take advantage of those better algorithms. Whereas if you have shot in a compressed format of some kind, and your footage is already debayered, you're stuck with what you've got basically.

RY: Yep, I've got it totally. And it really equates, shooting RAW really equates to shooting with a negative, because you've got –

JR: Yeah, like a negative, exactly.

RY: As compared to reversal, because when I was at film school we shot a lot of reversal because it was easy and it was cheap, but once you shoot it, you're locked in and you can't do a lot with it, whereas a negative you can always come back to it because it's like the pure original and I think that's what you guys are giving us with RAW, and I think a lot of people need to be educated in what RAW is about, but ultimately it's not that difficult. The processing of it isn't that hard and if anything I've found shooting

RAW easier because if you don't think about your white balance you can do anything with it you like, whereas if you're shooting in a compressed format you are locked into what you shoot.

JR: Yeah. That's exactly what I tell people. RAW does take a little bit more time in post but it saves you so much time on set. It really gives you so much more latitude, so much more clarity, and so much more freedom to not have to worry about some of those things on set, and really your time on set is so much more valuable in general than your time in post.

RY: Brilliant. Thanks for a fantastic interview, thank you.





ON LOCATION WITH DEN LENNIE: SHOOTING WITH THE PMW-F5



RY: Fantastic. Den, I know that you spent your money and you bought a Sony PMW-F5. now that's an expensive camera, that's a big investment. Tell me about the thought processes. What made you spend your money on that camera?

DL: Absolutely Rick, it was a big investment and the key is the word investment. I have a number of camera formats. I did have DSLRs, I no longer have DSLRs, I have an FS700, I have a Blackmagic Cinema Camera, I have an nX30 which I use frequently, and I have my F5. So let me tell you the story about why I chose the F5 route. I had to weigh up a lot of different aspects of my business to really figure out what was the right camera system to take my business forward.

Now F-Stop Academy is a three-fold business. The most commonly known one is the education that we do, so we do live workshops, we do online courses and we do speaking events around the world, but another big part of our business is corporate video production. Now it's the kind of thing we never actually really advertise, it just sort of happens to fall upon us, but over the last two or three years I've been doing increasing amounts of corporate and entertainment work. We've worked with the likes of Duran Duran, Cristiano Ronaldo and Robbie Williams through my connections at Hangman Studios, and what that's allowed us to do is work in a bigger playing field.

Now in addition to that, as a result of working with celebrities, corporate clients seem to quite like working with us as well. I think when you have the opportunity to work with a celebrity it has a certain secondary effect which is well, you must be good. If you're working with these big name celebrities you must be good. And I think that's probably true, and it's not so much that we're good but that we don't screw up and we deliver, and certainly something I share very much with James at Hangman is the sense of always over-delivering for clients. So yes, you can absolutely go out and shoot any corporate project on a DSLR, you can shoot any corporate project on the most entry-level DSLR, and if you've got a good eye and you know how to light and you know how to tell a story, you can tell a story.

So why did I then go and spend upwards of £15,000 on an F5? Well, it was very simple. I was doing a job in the Netherlands for a client in a lab and I was shooting on the FS700, but one of the criteria that the client had was it had to be broadcast HD acceptable because the BBC were interested in taking some of the footage. So what I did was I plugged my Atomos Samurai into my FS700 and I had my FS700 with my EVF on the side, and so it was all working well, but what I found was it was quite a cumbersome cobbling together of components and I, for anyone who's not familiar with my background I come from a television news background where I worked on Betacam SP, single-unit camcorders, broadcast zoom lens, and what I found

in that scenario was I had a very limited time to shoot six different sections of B-roll, and I found the cameras getting in my way because I had to press go on the Samurai and adjust the EVF, and the whole thing was frustrating me and it was getting in the way of me doing what I loved to do. So I realised then that it would be worth considering investing in a dedicated camcorder system with an already built-in viewfinder, going back to what I know, which is a camcorder with everything built in.

So I was looking at the F5, I was looking at the F55, I was looking at the RED, and through a series of probably months-worth of really considering all the options, I focussed down on the F5 and simply it was about the best spend to give me the maximum opportunity, so the F5 is the evolution of the F3. I'd always been interested in the F3. I just didn't like the ergonomics. So the F5 was giving me that next step up. I loved the fact that it had 50 megabits MPEG 2 compression, it had XAVC 100 megabits, and the option to shoot RAW. So I felt that it was a great building block, a great foundation of a camera system. I don't have the R5 recorder yet because I don't have any requirement for RAW, and if I do need to shoot RAW I use my Blackmagic Cinema camera for the time being, but Sony have always been great at producing very good compressions and codecs, and so when you're working quickly you want to be able to get your files off a card, into your edit system or into your grading system, and work with them quickly, and so that was a big plus. I'm familiar with SxS, I've been using that for years on the EX1, EX3, and I just loved the image. I thought the image was beautiful

and I often hear people talking about, 'Oh, it looks very Sony, it looks very video,' well you know, it is video, get over it! It is video, it's all video, RED is video, Alexa is video, it's all video, but I happen to really like the look of the F5. You've got a range of codecs you can choose from, a range of picture gammas, hyper gammas and S-log2, so I'm really happy with the images that come out of it.

I've got the OLED viewfinder, which was a pretty steep investment, but again it's 1280x720, really like that. We've just had a set of firmware upgrades which is giving us exposure tools and a whole heap of other slowmo options. I just felt it was a really great value proposition. My overall system probably is around about the £40,000 mark, which might seem like a lot of money for an aspiring filmmaker to even contemplate, and I had a guy on Facebook yesterday going, 'Oh, you don't need all this gear to be a great filmmaker'. It's like well I never said you did, but the difference that I'm talking about is that I'm doing client projects that start at £25,000 so I'm just not going to turn up with a DSLR because the client's expectation level is of a more polished, more professional system, and I don't care what anyone says, yes you can make a film on the DSLR but a client isn't going to pay you 25 grand to make a film on a DSLR.

So what does that actually mean in practice? Well, for the most part, and I don't want to sound like I'm really down on DSLRs 'cause it helped us build our business, but for the most part a DSLR will stand up really well on YouTube, on Vimeo, on a computer screen, but so much





of the work we're doing in the corporate field is ending up on a big screen, and so this whole event is about the cinema, and my approach has always been, from the earliest days of Betacam SP, to shoot cinematic-style images, be it using a filter, be it using a field drop to give it that filmic progressive look, when we were shooting interlace. So the F5 is a cinema camera. For me it is a cinema camera in a very small package, and I still shoot a lot of stuff on the FS700 and that's a cinema package as well. Super 35mm is a cinema format, S-log2 is a cinema format, and having highly compressed but very efficient codecs means you can work very efficiently and turn your footage around quickly, get it into your NLEs and totally have a cinema package for a very, very affordable amount of money relative to what it might have cost even 10 years ago.

RY: Let's talk about cinema. What would you say defines a cinema camera these days? There was a time when we all knew, you'd shoot 35mm for the cinema, that's what you needed, if you wanted to do 65, 70 you could, 16 could be used but it wasn't really acceptable. If we go back to the 1970s Frank Zappa shot a whole film on some very low video format, blew it up to 35, it looked terrible but he did it. But we're in a time now where cinema is within our grasp so we're talking about cinema, what would you say defines a cinema camera today?

DL: My definition of a cinema camera today is Super 35mm, 'cause that's just a standard, that's the standard that was set upon back in the '80s by Hollywood and all the commercials and music videos as a kind of ... there have been so many different formats to that point that for me, and it's just my opinion, Super 35mm is the cinema format.

Having some sort of log recording mode, which means you can capture the maximum dynamic range, I mean 12 or 13 stops of dynamic range is now the standard for cinema acquisitions, so anywhere over 12 stops of dynamic range I think is a cinema camera, that's getting close to what film was giving us. And apart from that, I guess you could argue the ability to take PL-mount lenses, so you can access some of the higher-end optics, and optics is one of these things that I can understand why a lot of people look at the price of a lens and go, 'Phhh, I can get something a lot cheaper' and I often use the analogy it's like hi-fi enthusiasts. If anyone's into their hi-fi, you can buy a system for a couple of thousand pounds that will sound OK, it will sound pretty good, in fact sound great. You can buy a system for £500 and it will sound great to someone who that's all they want to spend, but there are people who spend £30,000, £40,000, £50,000 on components and £4-5,000 on cables, and if you're not really listening for the differences, you might not think that that's a good investment.



With lenses, when you project on a big screen and you look at the edges of the frame and you look at the way the contrast is handled in the lens, that's one aspect of why cinema lenses can cost so much more money, the resolving power. The other thing is the mechanics of the lens. When you're working on the rigours of a film set, day in, day out, you need absolute reliability. You need to know when you're hitting your end-stop, that that actually is infinity. And for many people even watching this, that might not be a consideration, but when I'm working on set I need to know that when I hit infinity it's infinity, not a bit back or a bit forward. That is one of the reasons that I enjoy using Zeiss lenses so much, 'cause that's one of the areas they spend a lot of time getting right. Infinity is infinity. Your focus marks are exact.

And I think the next thing about cinema, it's not so much about the camera but in how you move the camera, I think how you move the camera really is a big aspect of cinematic production.

RY: We're talking shooting cinematically, not the actual sensor size, not the camera, but what you do with it?

DL: Well you know, I just talked about Super 35mm. To contradict myself completely, the Blackmagic Pocket camera is an amazing cinematic camera and it has a tiny sensor, similar to that of a Super 16 camera, but it's the way in which that highlight roll off is happening and the way in which the log modes are working that give



you that ... it's hard to describe, that slightly unattainable look and feel that I think reminds us of the cinema experience, and for me the cinema experience is from being a kid and looking at the screen and if you look at film that's being projected and if you look at the highlights, you can actually see them flickering or you can see the grain moving, and I think that's that conditioning that we've come to know as being the cinema experience. The cinema experience is always the music, the emotion, the sound effects, the surround sound. So I think what happens is we often mistake cinema for being about a camera when in actual fact it's very much about the camera, it's very much about the lenses, it might be the filters you use, it might be the



grade that you put across the top of it, it's definitely music, and it's absolute about how you approach your subject matter, how the light flares into the lens, how you use depth of field to control the focus on a scene, and it's also about how you involve your audience in the story. How are you moving that camera into a scene? Are you moving it across the frame, are you moving it into a frame, are you using Steadicam to bring a certain perspective, are you making it all hand-held and jerky to create invoke emotion? So I think if you consider how you're moving your camera, how you're using your camera to engage your audience, that to me is what cinema is all about.

RY: I've always thought that cinema is ... you've got to think cinema to produce cinema. All the gear isn't going to do it. It'll give you cinema look if you shoot it in the right way, but you've got to think about what the audience interaction with what you're producing is, and that, to me, is what cinema is about, as much as the camera. However, to contradict myself, yes, all that is relevant but the camera is pretty damn important.

You've got to have the right tools as well as the right mind-set, and I suspect part of the reason you bought the F5 is 'cause it's obviously the right tool for what you need to do, produces probably a higher quality than you need and, not only that, if you want to take it further you can get the R5 external recorder, you can do RAW, you can do 4K, you can go to levels that you probably never dreamed of.

DL: Well this is it. I felt it was a really sensible investment. I paid 20% of that camera off in the first couple of

months.

My plan is to pay that off well within a year ideally, 'cause then it becomes an asset and I think if you're running a business, anything you buy should be a tangible asset that makes you money. If not, you're just paying for an expensive hobby, and there are things that we all buy, because we have had a discussion about this before; we love what we do and so buying gear is like fulfilling our hobby as well, but it is primarily a business, and so I've got really compact ... I worked with James Tonkin recently on a couple of shoots for Robbie Williams at Wembley, and while James was shooting on the Epic for the onstage stuff, everything else we were shooting in the run-up was all done on FS700s and it was done in a very compact, using the LCD screen, Canon 17-55, a Nikon 50mm f1.8, very, very affordable gear because that's what suited the ability for us to move around the venue quickly, sliders, all that kind of thing, to give it a great look.

But I also have a fully cine-vised package with an O'Connor tripod, matte box, follow focus, monitors that are expensive items. But I'm in a very fortunate position, I do client projects. We've just one that was the best part of £30,000. now that's a three-day shoot, a lot of pre-production, a lot of post, a lot of gear hire, so I can always re ... the investment I make in my business becomes a chargeable item when I do jobs for clients.

But let's talk about, for a moment, the difference in look. I did some videos at IBC where I was presenting, and on the plane home I bumped into Julian Mitchell, who's the publisher of High Definition magazine, and

we always seem to bump into each other on the same flight home and he said, 'Oh, I saw some videos that you presented.'

They looked really nice! What were they shot on?' Because most people who are covering the new phenomenon of creating content at trade shows, not something you're not familiar with, you use F3s, I'm using an F5, everyone else is running around with an FS100 or an NXCAM of some description of an equivalent manufacturer.

RY: Even DSLRs.

DL: DSLRs. And what's happening is that we turn up with an F5 and we actually borrowed a Cabrio 19-90 from Fujinon as part of the WTS thing, and he said, 'It looked really nice. What did you shoot it on?' I said, 'It was on an F5 and just one of the standard gammas.' He said it just had a different quality about it, that stood out from every other piece of content that he'd seen at the show. So suddenly to me it's been a great investment. The person who is scrutinising high-definition footage day-in, day-out, runs a magazine about it, noticed the difference. So it only takes 5% of the buying population to notice the difference, who've got the money, who are going to say, 'We want what you've got because it's different.' Be careful of the majority 'cause they're almost always wrong, and so I'm always looking to push the quality of what we're doing up and up and up, and so if people say to me, 'Why are you shooting on that camera? Why are you going to the trouble of shooting on that camera?' Because I want the 5% or the 3% that say, 'We want you because you do it differently.'

RY: I think it's also that we love what we do, we're in this game for ourselves as well as our clients, it's not just about producing pictures that are acceptable; it's about producing stuff as good as we can do, and by having the good gear, that lets us take it further. It doesn't mean you have to have the good gear. You work with what you've got, but if you've got the opportunity as film-makers it's almost irresistible to move on to something with a wonderful big sensor, Super 35, the wonderful signal processing which Sony give us, the fact that you can record to an external recorder at 4K if you wish with RAW, or you can record compressed at very high quality, which is what you already touched on.

DL: Yeah

RY: So I think we've got to talk a little bit about affordable cinema and high-end cinema and what it all means and can affordable cinema be good enough for the big screen, for the high end, be it a Blackmagic, be it an FS700, or even an F5 or F3 might be considered affordable cinema camera compared to when you get right up into the realms of what costs tens upon tens of thousands of dollars or pounds, as opposed to 15,000 or 20,000 or 10,000. You can spend a lot of money if you choose.

DL: Absolutely. I was fortunate enough to be involved in Revenge of the Great Camera Shootout in 2011 or was it 2012, I forget. 2012, at Zacuto, and we tested with Bruce Logan ASC, everything from the iPhone to the F65, and what we deduced from that experiment was that all of the camera gear is now good enough to be on the big screen, period. End of conversation.





It's all good enough. What I think is going to separate those who can and those who want to just spend all day talking about it, is the stories you're telling and how you're telling them. Is the Blackmagic Pocket camera a cinema camera? Absolutely, 100%. Is it good enough to be on the big screen? I'm sorry I won't be at the event but I'll bet you have people are loving that footage and I know, 'cause I've seen stuff that James has done on the Rob tour, he had a shot and he might even show it tonight, there's a shot that he'd shot on the Epic and then immediately a shot that he shot on the Pocket camera, on the big screen, and it's like what's the difference? So all of the gear is good enough. If I wasn't running a business, doing this and making films for clients, I'd probably be quite happy with just a Pocket camera and a couple of lenses. The reason I have so much more gear is that I need the flexibility to take on any project, so when I'm discussing with a client up- front and pre-production, what may or may not be possible in a project, I know that I've got the resources to do a certain level of work and I also can access additional gear if I need to.

So yes, you can make a great film on a Blackmagic Pocket camera, and there is no reason why that is not good enough compared to an F5 or an Epic.

RY: I agree.

DL: There's just some limitations. You've got to understand that something I experience a lot and I observe a lot is people bitching about what a camera does and doesn't do. It's like it's commerce, look at what you're paying, and what does it do? If you want more, pay more, but please stop pissing and moaning ... I don't say that lightly, I saw something recently on an FS700 forum, and I was just like this has just become a pit of bitching and moaning and, 'Oh, it's not fair 'cause Sony haven't done an upgrade to the FS700 and the F5 and 55 are getting all the upgrades.' You know, the F5 is twice, three times the price of the 700, deal with it. If you want to get premium service and you want all the bells and whistles, you need to pay a bit

more for it. The FS700 is still a phenomenal camera, but I think what happens is people prefer to moan and bitch about something rather than, and I said this on this post, I said, 'Please stop pissing and moaning' 'cause I'd had enough of listening to this! 'Get out and film some great stuff.' It was an issue with 4K. I said, 'Forget 4K for the time being. Just go out and shoot some great 1080P, because you know what? Skyfall was shot on 2K.'

RY: Yes it was, that's right.

DL: So ... why do you need 4K? It's crazy!

RY: People are being sold on a lot of these things and in their mind it becomes an important thing, because that's the information being thrown towards them. But part of what the Cinema Night is about, is to show different formats on the screen, shot with different cameras, to see how it shapes up, and I'm in tune with what you're saying, that pretty much most of the cameras out there will produce good-looking pictures on the big screen. I think what we've got to be very aware of is to choose the camera that you can work with and get results. Obviously the quality is very important and we need a certain level of quality, especially if you're producing to the big screen, but you've also got to be able to work with that camera and be happy with it, which is why for me Blackmagic Pocket camera I love it, I've had it out on location, produces beautiful results, I would like to have one in my bag all the time for when I need it; however, that doesn't mean that's the camera I'm going to pull out every time, because there's other cameras that are much more suitable to shoot with in a lot of circumstances, and that's why you're spending money on something like an F5.

DL: You know, it's a good point. I mean I have a Blackmagic Cinema camera and I love it, but I don't use it on professional jobs, because I don't like to have to put the external audio recorder with an extra battery, all these other cables, all these other monitoring tools. I find it frustrating. That's why I went out and spent the



extra money on the F5, 'cause when I pull the F5 out the bag, I put a battery on the back, I put a lens on the front and I press record, and it's that easy, and that allows me to light an interview, think about the story, think about the B-roll and move on, get the job cut, get in invoiced and move on to the next project.

RY: Fantastic. OK, let's talk a little bit about the F5 from a technical point of view. Tell me about the codecs that you use, the codecs that it records. I know it does MPEG at 50 megabits a second, XDCAM, so you've got your broadcast built in. It's got XAVC which I believe you can do up to 100 megabits a second.

DL: Yup

RY: So let's talk about the codecs and also talk about how you use it and I'm sure you've got something to say about the switches are in the right place, you know where things are, it works for you in your hands.

DL: Yeah. I haven't shot a great deal with it, actually, because since buying it, it's been out on some jobs where other people have been shooting for me, but they've come back really liking it. I love the viewfinder, the OLED viewfinder is just fantastic, very sharp. I did some tests on the F55 actually in Sydney with Mick Jones, and it's a very similar camera and it blew me away actually just how well it handles the dynamic range of a scene and the way it resolves detail. But yeah, in terms of practicalities, everything is very familiar on the camera. Codec-wise, I've only used XAVC 100 megabits, we've done some RAW testing with the R5 recorder, it's in a backlog of stuff I'm going to do when I finally have a spare day, but it's hard to describe, I just feel very, very at home with Sony camcorders, I've grown up with them, I've been using for nearly 20 years in some form or other, so it's like having muscle memory, the switches in the right place you said, the ND filter's in the right place, so I like that very much, but I like the ergonomics of the camera, I like how it's so small and modular. I feel like I can connect with it well.

The fact that it's got the F mount which means I can put a Nikon adaptor or I can put a Canon adaptor or I can put a PL adaptor.

I'm very lucky, I work a lot with Zeiss lenses so I get to access some really nice bits of glass. The fact that you can put cinema lenses on this, but also small DSLR lenses, gives you incredible flexibility and I think that means it's just a real multipurpose tool. I feel I can go and shoot broadcast with it if I still did that, I could easily go and shoot a film on it, I can shoot music videos, I can shoot stuff that's RAW.

I think it can compete with the likes of the RED very, very easily, you can shoot 4K, the frame rates are increasing, but it's reliability for me. You can plug audio in the side. You don't need to bolt anything else on to plug audio in. You've got your four SDI outputs so you can have two clean and two with your data on set and it's just been really well thought out, and I mean let's not be under any illusions, Sony have probably looked at RED and gone, 'Right, how can we take RED on at their own game and give our customers all these functions?' And I do genuinely believe the F5 on its own, with the R5 recorder or without it's still a great camera, but with the R5 recorder you've got a real contender for RED. It will shoot 4K, it will shoot high frame-rates. The RED guys, even James might argue with me that 5K's better than 4K when he gets his Dragon sensor it will be better, and that's completely fine, 'cause we do slightly different types of work. But for me the investment I made in that camera will pay itself back quickly, and it's like the camera that keeps on giving. I don't want to sound in this like I'm a commercial for the camera, 'cause I'm not in any way recompensed by Sony for saying this, but we've had two or three firmware upgrades, it keeps having functionality added to it every few months. It's a no- brainer for me. It's a phenomenal tool.



SELF-SURGERY TO SAVE A SICK 5D MARK II

A little bit of self-surgery and an investment in the most basic of tools saved me the hassle of sending the camera away and the cost of the repair... go easy when pushing the CF cards into the slot.

My 5D Mark II stopped working. This isn't a camera I use often, though the sheer portability of the camera makes it useful for many things. I like having it!

I switch it on and get an error message.

Power down, power up, try to format the media. nothing works. The battery is charged, I try a different card. Same error message. I take the CF card out and shine a light into the slot where the card sits and to my horror can see a completely bent pin where the card plugs into. No wonder I'm getting error messages.



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I search online. I can pay anywhere from 50 to hundreds of pounds to have this repaired. Some guy on eBay (with 100% rating) does it for 50. Canon Europe, according to someone else who had the same problem, will fix it for around 500 Euros.

I don't really want to spend the money. This isn't my best camera and not something I rely on, however I do want it to work. I'm going to attempt the repair myself.

I visit the local hobby shop in search of strong tweezers or really thin pliers. I don't find either of these though I leave with what looks the sort of thing you would find in a dental surgery. If I can just pry that pin from being horizontal to vertical, I may just be able to bend it back into position.



I'm poking around inside the media slot of the camera. It soon becomes obvious I'm going to have to use a bit of force. I don't want to damage anything else, though reason, the camera isn't working now, so what have I got to lose.

The prong of metal catches the bent pin; I push as if I'm digging; it snaps up, I can see, almost into position. I do my best to bend the pin further into position. It looks very close.

Card into slot, push, snap the door closed, and switch on the camera.

Still get the error message. I shine a light into the slot. nothing looks bent.

Power down, eject the card, take the battery out, try again.

No error message! I format the card – success! The camera is now fully functional and working. A little bit of self-surgery and an investment in the most basic of tools saved me a lot of hassle sending the camera away and the cost of the repair. The moral of the story: check that the holes on the CF cards don't get clogged or covered up, as this is what will cause the pins to become bent. And go easy when pushing the CF cards into the slot.

Until the next time, Rick

