

### My new favourite camera By Brian O'Connell

The important feature in a camera for shooting fictional film is the ability to shoot in low light. When we were shooting Sarah's War (it seems a long time ago now) we predominantly used the Sony A7S II that at the time was universally recognised as the 'King of Low light'. It is possible to get a second hand one now for about a third of it's original price.



For low budget film makers it is important to be able to use natural light and practicals as much as possible. In this scene we were lighting with just the natural evening light and a desk lamp.





The A7S II was first released in October 2015. Ever since then, whenever there was news of Sony releasing a new camera there would be a huge speculation that it might be the successor to the A7S II. From about 2017 onwards there were countless Youtube videos saying so, but it has taken a full five years for the successor to finally come along. It became a standing joke as to when the A7S III would ever come out? The strange thing is that every other camera manufacturer seemed to go down the route of giving us more 'K' and loads of other features. In fact I don't know anyone asking for 8K and 12 K especially when the data storage requirements would be so huge. Sure for stills it is not a problem but for video?

Enter at last the A7S III. At a jaw dropping £3,800 this is a camera that has it all. Fantastic low light, excellent image stabilisation, great auto focus and at last a revised Sony menu interface system that it is reasonably logical and understandable for less technically expert folk.

September 2020

But bear in mind that this is the body only and Sony glass is expensive. You could pay the same again for some decent lenses.

This camera has been hailed as the ground-breaking camera for independent film makers.

Here are some of it's main features for club tech-ies:

Highlights specifications include:

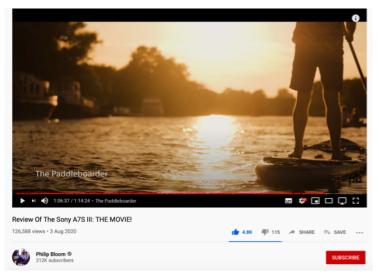
- Beautiful 4K video at 120p in 10-bit 4:2:2 internal for unlimited creative opportunities without overheating.
- Class leading image quality with a native ISO of 80-102,400 expandable up to ISO 40 to 409,600 for the ultimate low light performance when making movies or photos.
- Increased dynamic range of 15+ stops, drawing out details even in high contrast scenes.
- Brand new 12.1-MP full frame backilluminated Exmor R sensor paired with powerful BIONZ XR image processor for outstanding performance and speed.
- Faster and more precise video autofocus utilising hybrid AF, with 759 phasedetection AF points, 92% coverage and enhanced Real-time Eye AF.
- New XAVC-HS (H.265) and XAVC-S-I (All-I) codecs, 16 Bit RAW data output, S-Log profile
- Up to 5.5 stops of in-body image stabilisation (IBIS) with a new active mode.
- New touch capable menu system, variangle monitor and 9.44 million dot OLED Tru Finder
- Dual card slots cross compatible with high speed Cfexpress Type A/ UHS-II.
- Enhanced connectivity with 5GHZ wifi connection and full sized HDMI port

So this is my dream camera. However I cannot imagine





The Best lenses for Sony A7S III



ever owning one as every camera is only as good as the DOP or camera person that is using it.

If you have time (1 hr and 14 mins!) you might like to look at Philip Bloom's in depth review that can be found Here

but there are loads of other equally effusive reviews of what this camera offers. It can film 4K for hours without overheating. It is also perfect for astrophotography which must tell you something!

But I do wonder if the other camera manufacturers will go down the same route and start giving narrative film makers what they actually want in decent low light cameras and perhaps use the same sensor. Maybe the yet to arrive GH6 will have a similar dynamic range for 4K with lenses that cost half the price. This fantastic technology is coming down the road so look out!

#### SO WHAT'S THE BIG DEAL ABOUT PRORES RAW?

### Mike's Master Class on Pro Res Raw

### by Mike Sanders

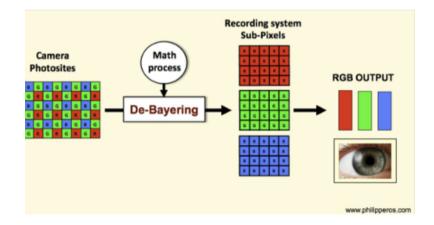


### What is it?

It is a recording codec which makes a .mov file on hard disk. It can capture the RAW data from a camera sensor chip without any of the camera processing in line leaving the computer to do all the processing.

### So what does the Camera Sensor see?

It doesn't see colour like our eyes do, and it needs descrambling in the camera and making up into red, green and blue like we are used to watching. I found this useful diagram from Afcinema.



The camera Photosites data is recorded directly in the RAW file so the computer has to do all the descrambling work, which means a reasonably fast computer. The iMac Pro is capable of doing that for example.

### Does it make huge files?

No bigger than the professional format files such as XAVCi, that was Apple's main goal with the format not to make unmanageable files.

### Where can it be used?

On professional cameras with either an internal recording system that does Pro Res or on an external ATOMOS Shogun display recorder, but the camera has to have a RAW output.

It is intended only as an acquisition format for original recordings to send your edited file to someone else you would use Pro Res 222HQ.

### Are any amateur priced cameras available with RAW?

Not in the £600-£800 area.

The lowest price one I can find is the z-cam-e2-s6-6k-super-camera-ef / Z-CAM-E2-S6-EF at £2,634 inc. VAT, (CVP) but that just gets you a camera body, no lens, no monitor, and no grip.

It does support Canon EF mount lenses which also fit DSLR cameras.

If you want to put up with micro 4/3 lenses then they are cheaper Z cam bodies circa £1,600 but you are buying a lens that doesn't fit anything else.

You need some batteries and charger, the monitor, some media to record to, so I would say just north of £3,000 to be able to go out and record something.

The DSLR cameras such as Nikon Z7 is a pretty similar price body but will not internally record Pro Res RAW meaning you will need the ATOMOS recorder monitor.



### **ProRes RAW....is it the future?**



### What is its advantage of RAW recordings?

RAW supports 12 Bit colour depth which is a huge amount of colour information, of course the camera has to be capable of doing that.

The editor or colourist can pull far more out of the file in terms of grading the film, bring back bleached out highlights, lower noise colours that sort of thing.

### Is there anything special we need to set in the camera?

Yes you need to set the camera to either output RAW over SDI or HDMI cables or too internally record RAW.

Also you need to set the camera to record in a log format, Zlog, Slog3 and in Sony's case also in Cine EI.

You need to choose between HLG or PQ gamma curve recording. What does that mean? You are going to produce High

dynamic range video file as the end result in your • Input/output curves for transmission of HDR signals (OETF/EOTF) edit.

SKY and Netflix use PQ which is compatible to HDR10 which all new TV's have and the BBC have opted for HLG

The BBC chose HLG as it was most compatible to non HDR TV's as the contrast follows the Standard dynamic range curve over half its travel

before departing off to deliver 12 stops of light

range as we can see in the diagram from <u>Here</u>

The PQ curve has a gentler rise and peaks at just over 75% brightness which the Tv compensates for.

HLG looks less washed out on SDR Tv's than PQ.

Monitoring your recording on a camera mounted monitor. You need to be able to see what you are doing. The standard camera monitors are useless for this as they can't display HDR so you really need the ATOMOS Shinobi monitor circa £300 otherwise you won't be able to set the exposure properly.

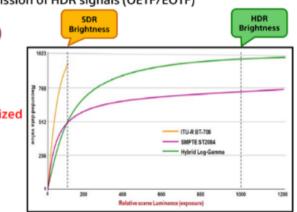
### What will that produce on the computer?

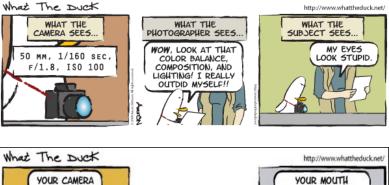
A High Dynamic Range video ready to play on your HDR TV. You must set the editing project up to match either HLG or PQ. Your Editing software must be able to decode Pro Res RAW as well as be able to set an HDR project.

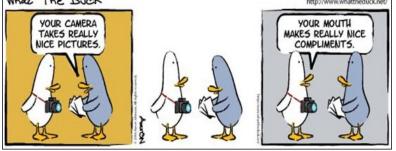
You also need to display it. The IMac Pro 2008 onwards with a 5K display are HDR compatible but models before that are not. For older Mac's you will need an external HDR TV but you need to connect it to your computer but not to the computer HDMI output. You need a dedicated output converter. Either via Black Magic Design Decklink hardware card that goes into your PC or a thunderbolt model that plugs into a Mac thunderbolt. They also do 8K cards now!

This whole process is not for the thin walleted of us!

1 bit (2 gradations)
2 bit (4 gradations)
4 bit (16 gradations)
8 bit (256 gradations)
10 bit (1024 gradations)
12 bit (4096 gradations)







"PQ" (SMPTE standard ST.2084)

Color depth

- "Hybrid Log-Gamma" (HLG) developed by BBC/NHK
- Both techniques also standardized in ITU-R BT-2100-1

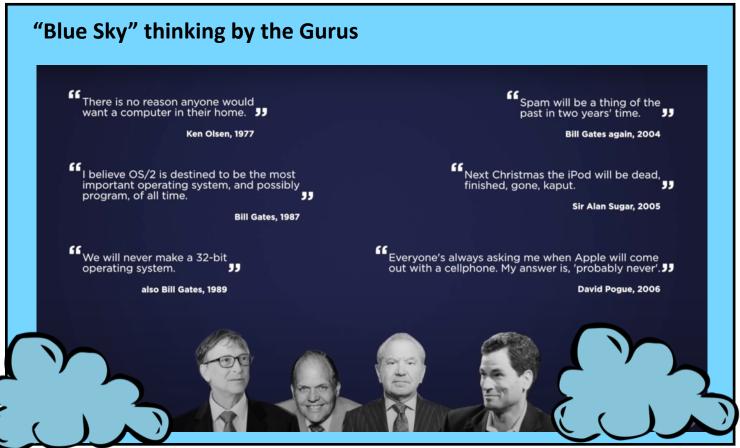


- 8:00 I made a snowman.
- 8:10 A feminist passed by and asked me why I didn't make a snow woman.
- 8:15 So, I made a snow woman.
- 8:17 My feminist neighbour complained about the snow woman's voluptuous chest saying it objectified snow women everywhere.
- 8:20 The gay couple living nearby threw a hissy fit and moaned it could have been two snow men instead.
- 8:22 The transgender man..women...person asked why I didn't just make one snow person with detachable parts.
- 8:25 The vegans at the end of the lane complained about the carrot nose, as veggies are food and not to decorate snow figures with.
- 8:28 I was being called a racist because the snow couple is white.
- 8:31 The middle eastern gent across the road demanded the snow woman be covered up .
- 8:40 The Police arrived saying someone had been offended.
- 8:42 The feminist neighbour complained again that the broomstick of the snow woman needed to be removed because it depicted women in a domestic role.
- 8:43 The council equality officer arrived and threatened me with eviction.
- 8:45 TV news crew from BBC showed up. I was asked if I know the difference between snowmen and snow-women? I replied "Snowballs" and am now called a sexist.
- 9:00 I was on the News as a suspected terrorist, racist, homophobe sensibility offender, bent on stirring up trouble during difficult weather.
- 9:10 I was asked if I have any accomplices. My children were taken by social services.
- 9:29 Far left protesters offended by everything marched down the street demanding for me to be arrested.

#### By noon it all melted

Moral:

There is no moral to this story. It is what the world has become, all because of a few snowflakes."



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### by Philip Morley

We all like to speed up our workflow in post production. Getting a fast editing computer or using presets for tasks we repeat often is all part of the game. Now you can have a new tool on your desktop.

There are lots of different keyboard shortcut controllers. These are mostly control surfaces with buttons, knobs and sliders on them that call up certain keys or combination of keys that you would otherwise have to activate by pressing your keyboard.

So what's the big deal with control surfaces since you can already use a keyboard shortcut? Well for one a control surface lets you really customize the buttons and only setup what you need in a particular application that you are working in. Also many of these surfaces have more than just buttons. They have sliders or wheels on them that allow a more natural control input then just pressing a keyboard key.

Even though you may have tried many of these gadgets over the years I suspect you never rated them and didn't find them all that useful in speeding up your workflow. In the end after trying to introduce them into your everyday work on a computer you probably found that these things made life actually slow down. Because you had to move your hands from the keyboard over to the surface and then find the right button or knob.

What is good about the Tourbox is that it's small. So it fits easily even on a small desktop right next to your keyboard. It is also designed to be operated by just one hand.

This means that when you edit in Davinci Resolve or Premiere or Final Cut, you have your right hand on the mouse and left hand on Tourbox most of the time. This way you can edit and do everything you need to for over 90% of the time.

This cuts the time you have to reach for the keyboard.

The Tourbox is designed with different shape and textured buttons which makes it very easy to remember by touch where different buttons or wheels are. This means that after just a few hours of working with Tourbox you no longer need to look down at the control surface to find the right button.

This means you can edit much faster. You can just lock your vision on the screen and let your hands operate the mouse and Tourbox.

Check out how it works Here

Check it out and buy one Here



### £159

# View your movies on the big screen in the garden!

John Ivil recently spotted the opportunity to buy up to a 150" screen and projector from America (import duty will be charged) for US\$299. This will be ideal for a Summer Covid free showing off your latest block buster movie.



For more details, check it out. HERE





The following photo of this strange man was used in this months Caption Competition.

The finalists gave the following comments:

1. 'I'm a tea pot.'

2. 'Which aisle is it for operating tables?'

3. 'Fancy a good time with some sanitiser, my handle needs a rub down?'



Is that you Peter? I wonder?

### Multi-Angle Portable Stand for Mobile phone or iPad.

### By Brian O'Connell

It is surprising how many laptops or desktops still have poor cameras using 720 p or less, and before you go out to buy a new webcam you may find that one of the best cameras you can use for web conferencing is the one in your mobile phone or iPad. Of course it will be a smaller viewing screen, but that aside you may find that other members of your web conference appreciate the much-improved image they receive.

You then have the problem of mounting the phone or tablet at the right angle and a multi-angle stand may be the solution. I have used a brilliant one before from 'Anker' but they do not seem to be available any more. This one from company called JETech looks very similar and appears to have some good reviews. When you squeeze the button in the hinge it allows it to stay at different angles. This is an essential feature otherwise you will find it a lot of hassle to get yourself in the right place on the screen. It is also quite small and portable so you can take it on holiday or anywhere you like.

Please bear in mind that I have not received one, so I can't be sure about the quality, but for £7.99 it might be something you might like to consider and if so remember to order it through the club. Check it out <u>Here</u>



### **Report on Black Magic Design Da Vinci Resolve.**

### **By Mike Sanders**



Subsequent to the talk on Black magic Design DaVinci Resolve at the Bristol Video Society on line meeting here are some notes and observations.

There are two versions, free and paid for. The Cost of the paid for version is £258 from Visual Impact.

It works equally well on Windows and Apple. A list of supported camera codecs can be found Here

I have tried the free version of Resolve but to get UHD out and it to recognise my XAVCI Sony camera video codec I had to pay for it.

However, you get a lot of software for free in the free version.

I find all the different screens, media, edit and colour all very clunky and frankly copied from Adobe Premiere Pro editing software, I prefer the simple Grass Valley Edius editing system where all you need is on one screen.

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A3 Audio 3	1.0					
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Media	Cut	Edit	Fusion	Color	Fairlight	Deliver

For example if I am in the colour tab and I have reached a good colour setting for a clip, I then have to go back to the edit screen to copy the adjusted clip colour attributes to the other clips, then back to colour unless I am doing it wrong.

The one thing I really liked was the colour display CIE Chromaticity below in the image. If you look on line for explanations of colour space they always represent colour as the visible colour that the eye can see, represented by the outer ellipse, the triangle is the colour that the particular colour profile can deliver of the visible colour.

To be broadcast compliant no colour information should lie outside the triangle.

With a later version of GV Edius there is very little that I need that Resolve can do better than GV Edius.

The audio is better (Fairlight) and it will do 5.1 sound with a proper sound panner which Final Cut has had for some time and is wanted in Edius.

The paid for version does also support HDR out to a TV which works, but a big oversight of the whole program is not to support Apple Pro Res RAW which so many shoots are now using to get as close to the original data from the camera sensor as possible, which gives the colourist maximum range of adjustment in the edit, such as recovering what seem like burnt out shots. It does Black Magic RAW and Sony RAW but obviously won't take the Atomos external recorder Pro Res RAW files.





I see it also links to DCP o Matic which I had to use to make the files for the Farnham Maltings cinema projector for our club film "Inside I am 35" to be shown.

The other thing it does is link to Dolby Atmos hardware to create Dolby Atmos sound scape but that in software is another \$1300, and the Dolby RMU Dell server hardware adds another \$1000.

I haven't played properly with the audio app Fairlight yet.

The killer item in both Edius and Resolve is adding detail sharpening to RAW files. This is something that is added to the video by the camera processing electronics and often the level of detail can be set in a camera set up menu item. RAW bi-passes that so you have to add it in afterwards in the edit. Detail

enhancement uses a lot of computer resources.

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I note that it will play 8K files in real time and RED 4K 24p which Edius won't but it entirely uses the computer graphics card for its playback. It is on limit at 8K 24p and also at UHD 50p with LUTs and sharpening applied.

I see it also has a thing called Fusion which effectively is an equivalent to Adobe After Effects.

An introductory video can be found Here

### and Here

To use Resolve in earnest for UHD and 4K footage I would have to upgrade the graphics card which is an NVidia GTX1080 TI to at least the RTX 2080 (circa £1300) which is twice as fast but there is an RTX 3080 coming out this month so I won't rush out yet.

You will find a practical application explanation in the video how it has been used to create a documentary **Here** 

Just as an aside for those chasing down the latest fast computers to do those multiple layers or 4K or even 8K watch the movie. Here There are two videos worth watching at the top of the page the left hand one from RED and the right hand one about designing games using the AMD 64 core processor.

Intel are well behind AMD now at about half the speed.

### Editors Note 刈

The Eds have been on holiday this month. Philip to France just in time to inherit a 2 week prison sentence at home when he returns due to new rules. Meanwhile, Brian has been on the beautiful island of Anglesey in North Wales making the most of the big storms.

Be safe and please remember to use the Club 'Click-through to Amazon' link HERE when shopping on line.

### STAYING UP-TO-DATE

If you come across any little gismo or invention in the movie making world that you think our members may be interested to know about, just let us have the link and we'll include it in "Kit Corner".

Thanks Eds!

### Contributors!

Thanks to all members who helped us by contributing to this issue: Peter Frost, Brian O'Connell, Philip Morley , Rita Wheeler, Mike Saunders, John Ivil

COPY DEADLINE! October 2020 issue will be 14th of September so keep it coming. Late copy will be carried over to the next month. Thank you for your co-operation -*Eds*!



### Next Meeting

#### Friday 4th September

Another completely virus free, on line meeting. See the instructions from Rita so you can attend from your fireside with a warming glass of something.

### More Dates

2nd October - Inter Club Competition.

### Your Club Contacts Name:

Chairman
Vice Chairman
Hon. Secretary
Hon. Treasurer
Webmaster
Competition Officer
Training Officer
Public Relations Officer
Editor - Border Post
Social Events

Philip Morley Rita Wheeler Gillian Gatland Dave Rayers Peter Ives Vacant Kathy Butcher Philip Morley & Brian O'Connell Committee

**Mike Sanders** 

**Border** Post



WASH YOUR HANDS! More at home CV tips HERE

### Erratum

#### July 2020

In the July Edition of Border Post Anne Massey of the Reading Film and Video Makers Club was incorrectly attributed to being a member of the Stains Video Club. We apologise for this error. Eds

## Come and see what we do!

See what other movie makers are up to and you may get inspiration for your own projects. We always welcome new members and you can sound us out for free, too. You can find out more about us by visiting our web site www.surreyborder.org.uk

or email the secretary: secretary@ surreyborder.org.uk

We are also on Facebook:

www.facebook.com/SurreyBorderMovieMakers/timeline Pre-Corona Virus, meetings were held at St Joan's Centre, 19 Tilford Road, Farnham GU9 8DJ, however until further notice meetings will be held on-line on the first Friday of the month, starting at 8.00 pm and finishing at 10.00 pm. If you are interested then email: secretary@surreyborder.org.uk

St Joan's Centre is 200 yards south of Farnham station and is in the grounds of St Joan's Church. The entrance to the church is by a narrow road opposite the junction with Alfred Road, and St Joan's Centre is to the right of the church. There is ample parking.

### Remember your first visit is free

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Your contributions for inclusion will be appreciated together with photographs if possible. Please send them to The Editor Border Post for the next issue: editor@surreyborder.org.uk

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