



Wonderful - it's back to normal!

Header Design: Peter Frost

An afternoon with the Black Magic 6K Pocket Cinema Camera

by *Brian O'Connell and Jack Visser*



Jack kindly wrote an article a little while ago for Border Post about his new Black Magic 6K camera and I was interested to hear how he was getting on with it. Jack has spent a lot of time in media production as a studio supervisor, but this mainly involved administration, although he has worked quite a lot on sound and audio. He has had to liaise with crew in his professional capacity and therefore knows the basics of lighting with key light and fill lights etc. and has an impressive technical knowledge of cameras.

The BMPCC 6K has had a number of very positive reviews not least its

excellent performance in low light and it is billed as an affordable way to get high end camera capabilities, particularly if manual focus is all that is needed.

Covid has meant that opportunities for using kit have been very limited and since things are at last opening up I thought it would be good to invite Jack around to explore what it can do. He set up the camera on a tripod and introduced some of the features.

Jack has some decent glass including a Sigma F2.8 17 -50 mm, and a 50 to 150 mm lens too. With this camera it is possible to write the data to an



external SSD and therefore expensive SD cards are not needed.



In the photo below you can see the light blue Samsung SSD in the top left hand corner.



The camera is mounted in a cage in order to allow for a number of accessories.

The Black magic 6k camera has a miniature XLR and a 3.5mm plug in. Jack has a converter of normal XLR to miniature XLR.



In addition he has an external viewfinder and here we see him attaching it to the camera.

The camera has a reputation for using quite a bit of battery power but Jack has covered this with two large batteries.



The plan for our low light test was to take the camera into the garage and to gradually close the door to see how the camera could cope with different levels of light. We

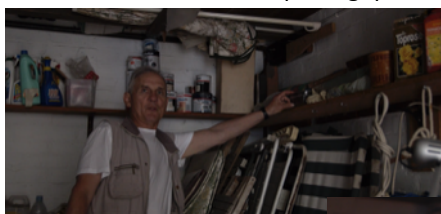
would film in 4K.



Here you see Jack getting ready to shoot. I was going to be the so called 'presenter' but before we

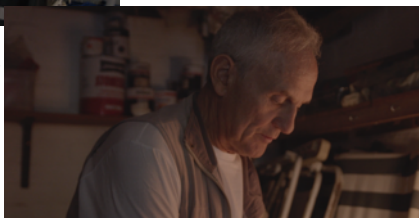
got started it was helpful for me to have a monitor facing towards me for framing etc. and Jack was able to whip one up and place it on his versatile cage.

We did a few takes, exploring quite extreme levels of low



light. Here are a couple of the images.

We then moved outside to do some tests in the summerhouse in normal outside light.



At the end of the shoot the plan was that I would copy the footage from the SSD hard drive. Jack edits in Edius and he was able to send me some excellent sample footage a few days later. Here are Jack's comments:



"The BMPCC held up quite well but once it was pushed to over ISO 5000, the noise was very apparent, never-the-less, for the most part it seemed to do quite well. I was using a Sigma 17-50mm F2.8 lens at full aperture.

I filmed at 4k DCI using ProRes 422, which meant I wasn't using it's full dynamic

range of 13 stops as I would if I had used RAW but thought that it would give the ability to view the files on Brian's computer, however, that didn't work out in the end as the file format on my drive was ExFAT and his computer is an AppleMac, consequently the files weren't recognised.

I have since done an up-date on the firmware of the BMPCC to 7.3 and this now allows me to film in 4k RAW DCI, also it changed the LOG file from gen4 to gen 5 and this gives a much flatter image and consequently more flexibility in post. The real improvement being that it is far more natural at reproducing the red part of the spectrum.

There are various other improvements such as, RGB histogram with a traffic light type system that will highlight if you're over exposed on one part of the spectrum, the false colour is also improved and auto focus is improved providing you're using Canon glass. I found that it is useless with Sigma glass."

Going back to the filming with Brian, we tried filming in bright sunshine at a couple of different angles, one of which was partly in his summerhouse.

I think this is where the 6k BMPCC really works well as highlights are kept well under control. All in all, I thought it was a very useful exercise."

Thank you Jack, for a very interesting afternoon with your amazing camera!



Surrey Border Movie Maker Members Team up with Mr Motivator

Article from the West Sussex County Times



Lawrence Clerk and Lucienne Suter

SBMM members Lucienne Suter and Lawrence Clerk, based in Billingham, have been hand picked by fitness guru Mr Motivator to help run a new well-being club.

Lucienne and Lawrence have professional qualifications in yoga, pilates, music and complimentary therapies and have teamed up with Mr Motivator to run online classes to encourage people to lead healthier, and more mindful lifestyles.

“We have been enthusiastic about exercise, the way we eat and being positive for most of our lives,” said Lawrence.



Mr Motivator

He and Lucienne were teaching yoga, pilates and mindfulness on a Saga cruise when they first met Mr Motivator in 2019. His new club – www.mrmotivatorclub.com – extends his trademark ‘physical motivation’ to include expert advice on sensible eating, mental fitness and provides a community to help battle loneliness, especially in older people.

Lucien and Laurance are two of 14 motivators – experts in their fields – who help run the club.

SBMM Reporters needed?

by Brian O’Connell



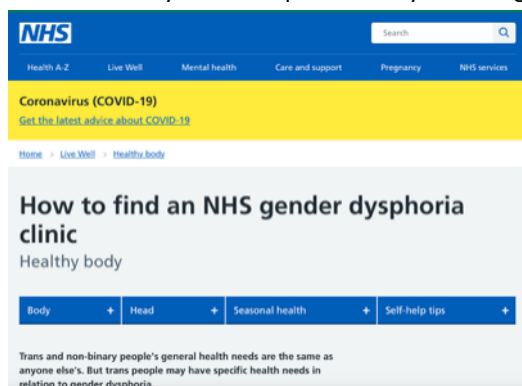
Do you fancy a role within Border Post as a Special correspondent?

Since we have had a flood of applications we have shortlisted some candidates and asked them to submit a short sample article.

Candidate 2 for the role of Diversity Correspondent

In film making these days there is a great deal of pressure to show commitment to ‘Diversity’ and what better way to demonstrate this than by making a movie about your own transition from one sex to another. Your film-making career will be fast tracked because national media organisations are desperate to recruit you.

The NHS is very well set up to advise you through the process.



but should you wish to go privately the operations can be performed for as little as a couple of thousand pounds which is barely the cost of a Prosumer camera like the GH5.

Of course there is the additional outlay of a visit to Primark to get a whole new set of clothes but your opportunities for BAFTA awards will be spectacularly increased.

These photos may suggest that one of our members is seriously considering this option.



A spokesman for BAFTA said that anyone falsely claiming ‘Trans’ status will no longer be worthy of awards.

Would you like to see more articles like this?

At this stage the candidate will not be named to ensure feedback is impartial. Send comments to the Editors.

THE DIFFERENCE BETWEEN DOGS AND CATS observations from a Vet.

Submitted by Rita Wheeler



How to give a pill to a cat.

Pick up cat and cradle it in the crook of your left arm as if holding a baby. Position right forefinger and thumb on either side of cat's mouth and gently apply pressure to cheeks while holding pill in right hand. As cat opens mouth, pop pill into mouth. Allow cat to close mouth and swallow.

Retrieve pill from floor and cat from behind sofa. Cradle cat in left arm and repeat process.

Retrieve cat from bedroom, and throw soggy pill away.

Take new pill from foil wrap, cradle cat in left arm, holding rear paws tightly with left hand. Force jaws open and push pill to back of mouth with right forefinger. Hold mouth shut for a count of ten.

Retrieve pill from goldfish bowl and cat from top of wardrobe. Call spouse from garden.

Kneel on floor with cat wedged firmly between knees, hold front and rear paws. Ignore low growls emitted by cat. Get spouse to hold head firmly with one hand while forcing wooden ruler into mouth. Drop pill down ruler and rub cat's throat vigorously.

Retrieve cat from curtain rail, get another pill from foil wrap. Make note to buy new ruler and repair curtains. Carefully sweep shattered figurines and vases from hearth and set to one side for gluing later.

Wrap cat in large towel and get spouse to lie on cat with head just visible from below armpit. Put pill in end of drinking straw, force mouth open with pencil, and blow down drinking straw.

Check label to make sure pill not harmful to humans, drink 1 beer to take taste away. Apply Band-Aid to spouse's forearm and remove blood from carpet with cold water and soap.

Retrieve cat from neighbour's shed. Get another pill. Open another beer. Place cat in cupboard, and close door onto neck, to leave head showing. Force mouth open with dessert spoon. Flick pill down throat with elastic band.



Fetch screwdriver from garage and put cupboard door back on hinges. Drink beer. Fetch bottle of Scotch. Pour shot, drink. Apply cold compress to cheek and check records for date of last tetanus shot. Apply whiskey compress to cheek to disinfect. Toss back another shot. Throw T-shirt away and fetch new one from bedroom.

Call fire department to retrieve the cat from tree across the road. Apologise to neighbour who crashed into fence while swerving to avoid cat. Take last pill from foil-wrap.

Tie the little @!!@#@@#\$\$%'s front paws to rear paws with garden twine and bind tightly to leg of dining table, find heavy-duty pruning gloves from shed. Push pill into mouth followed by large piece of steak filet. Be rough about it. Hold head vertically and pour 2 pints of water down throat to wash pill down.

Consume remainder of Scotch. Get spouse to drive you to the emergency room, sit quietly while doctor stitches fingers and forearm and remove pill remnants from right eye. Call furniture shop on way home to order new table.

Arrange for SPCA to collect mutant cat from hell and call local pet shop to see if they have any hamsters.

How to give a dog a pill:

Wrap it in cheese!



I finally remember what Zoom meetings remind me of.

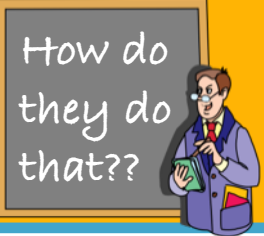


Thanks to Dick Granger for this contribution!.



The 24p Dream

By Mike Sanders



Why is filming at 24 frames per second such a wish of videographers? Well, it is then a “film” and as most films are shot (albeit electronically) at 24p these days then it stands every chance of being shown at a cinema. (25p behaves very similarly).

This article will deal with the advantages and disadvantages, the workflow and precautions to take when shooting.

Note: Many cameras only film in 4096 by 2160 (4K) in 24p, in 3840 by 2160 (UHD) it is 23.98 FPS.

24p has some advantages.

- It uses up least computer memory space which rapidly increases as the frame rate increases.
- The camera is at its most sensitive as the shutter speed is at its lowest setting.
- It has the highest difference in frame rates between normal and slow motion.
- It is the lowest stress on the microprocessor power in computer based editing, as higher frame rates like 50 or 60p really are a heavy load for the computer to manage.

There are also some snags to work around too.

- Fluorescent lighting flickers badly (A 25p shoot won't flicker in the UK).
- Camera pans have to be handled with care, an object must not move across the screen in less than 7 seconds when panning the camera. If the horizontal movement is too great the position of the object moves so much between frames it appears to judder on playback.
- Fast action should be shot at a higher frame rate and conformed to 24p in the edit.
- Delivery to broadcast television or the club will require a conversion process to a higher frame rate.

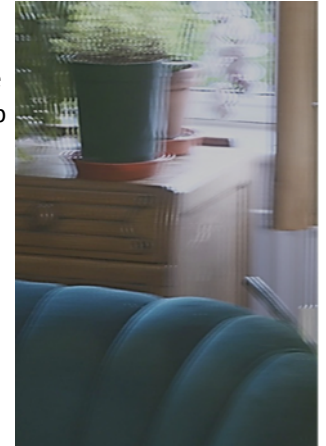
There are a lot of emotional strings attached to this fairly old technology, and it is tied to good old celluloid film, as that was and still is the frame rate, even for modern electronic camera shooting. It was 16 frames per second, but that didn't work too well gave flicker even on a locked off camera shot and wasn't too good for sound quality either, 24p was chosen as the point at which the audience did not perceive flicker, and was better for sound quality.

The film purists say that if a pan judders as it moves across the scene that's how a film should be shown, and people with frame interpolation or smart or intelligent Frame TV's for 24p films should turn off that facility in the TV's setting menu, according to Tom Cruise. But surely that's just a film purist talking?

Looking round the comments on line they say if it is too smooth it isn't make believe anymore, it's just like watching a television documentary.

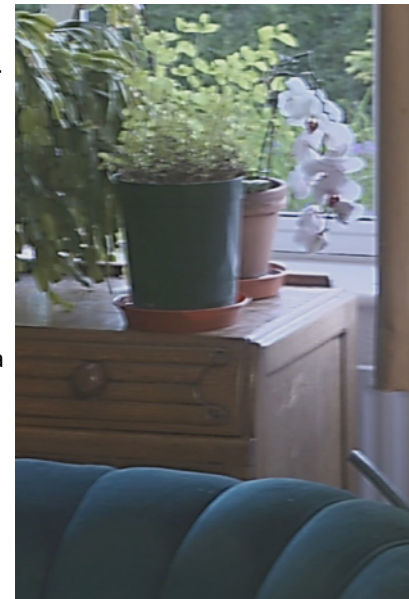
BUT we don't see SKY or Netflix playing films with juddery camera pans they smooth the frames out so that it doesn't do that. Personally I like the action to look like it would from my eyes, if I were actually there, and my eyes don't judder as I look round, and to me watching a film judder would take my mind off a good story. The series Sons of Anarchy a USA based gun running biker gang at 24p compared to 60p can be found [HERE](#)

So let's look into this a bit more. Here is an example of a slow pan at 24p (shutter at 180 degrees or 48PS) and I have layered 3 adjacent frame grabs from the timeline on top of each other with the screen blend filter applied to the top two layers (gives layer see through) in Photoshop, and applied to the top two layers (frames 2 and 3) so you can see how much the scene moves between frames.



Probably the right hand edge of the flower pot is the best place to look or its brown drip tray edge. So the next picture is the same material brought into a 50i timeline, and further on in the article we will run through the workflow as to how to get 24p into a form showable at the club or onto broadcast TV.

In this picture which is generated from the original 24p into a 50p timeline, we can see that between the 3 frames, there is much less physical movement, therefore it will not judder. I had to do a 50p project grab as it is not possible to do the same grab in a 50i project due to the presence of odd and even frames.



The workflow process is longer to get the clip into a 50p project than in a 50i one, but I will cover that later.

The comparisons will be very similar between 25p and 24p so anyone filming or editing in 25p should also expect judder on camera movement, and we saw that at the club with some of Peter Frost's films which were edited in 25p.

It is relatively easy to set the conversion up in Edius editing software to a 50i project but not as easy in a 50p one.

The first action broadcasters will do in the UK is to speed the 24p film up to 25p and in Edius I tell the bin via the clip properties that it is a 25p clip before I drag it to the timeline. The clip is now $24/25 = 1.0416\%$ shorter, so a 90minute 24p movie plays in PAL land (UK and Europe) at 86.4 minutes.

The clip still judders but mathematically 25p works with 50i OK, and I just add the stabiliser filter and it is perfectly smooth playback after a short wait to analyse the clip.

The edit should be completed in 24p and then export a high quality file from the edit to bring into another 50i or 50P project Edius or Compressor (Final Cut) for your final conversion.

In a 50p project I do the same trick but the stabiliser doesn't help so I now need to use the optical flow frame option, which needs rendering and takes a long time to render before play can begin.

In final Cut Pro the procedure uses Compressor to do the work. It can be seen [HERE](#). It looks like reading the article the Cinema Tools/Adobe After Effects method is best to convert 24p to 25p, as this avoids edge ghosting before bringing the footage back to

Final Cut in a 50i timeline. No edge ghosting was observed using the Edius method.

Another article here about frame interpolation in Final Cut Pro can be seen [HERE](#)

The sound will need adjusting as the pitch will be wrong. In Edius the pitch filter is added to the audio track, in Compressor it is done at the same time as the conversion.

In Edius the pitch shifter should be added to the audio track on the timeline and set to $24/25 = 96\%$ otherwise it sounds a bit like the helium has been out and everybody is speaking higher pitched.



Are you interested in shooting a night time scene that makes your film POP?

Click [HERE](#) to see the secrets.

Link provided by Mike Sanders



If you are using Final Cut Pro to edit your films or just thinking about it, look no further. Click [HERE](#) to see 200!! FREE short movies on every aspect of this fantastic software.

Link provided by Philip Morley

Getting the best out of your iPhone 12 Pro Max camera

By Philip Morley

It's quite astonishing to see the development of cameras within mobile telephones over the last few years.

Kyocera Corporation, an electronics manufacturer based in Kyoto, conducted a two year development campaign from 1997 to 1999 that resulted in the release of the VP-210 VisualPhone, the world's first mobile colour videophone that also doubled as a camera phone for still photos. The camera phone was the same size as similar contemporary mobile phones, but sported a large camera lens and a 5 cm (2 inch) colour TFT display capable of displaying 65,000 colours, and was able to process two video frames per second. The 155 gram (5.5 oz.) camera could also take 20 photos and convey them by e-mail, with the camera phone retailing at the time for 40,000 yen, about US\$325 in 1999.



The VP-210 was released in May 1999 and used its single front-facing 110,000-pixel camera to send two images per second through Japan's PHS mobile phone network system. Although its frame rate was crude and its memory is considered tiny in the present day, the phone was viewed as "revolutionary" at the time of its release.

Thought to have a small market of perhaps 10 million world wide. How wrong they were. This has grown to over 8.3 billion mobile subscribers in 2019

21 years on from that first phone the demand for better cameras has resulted in the same package (weighing just 1.5oz more than the VP-210) delivering the ability to compete with high end cinema cameras costing many thousands of pounds.

The arrival of the iPhone 12 Pro Max has finally convinced me that this is a serious filming option. So, I set about researching how to get the best out of the phone when making movies.

'Making the best' falls into 2 categories:

1. Using the phone for monitoring shots taken on another phone/pad.
2. Taking high quality movie/sound using the phones camera and recoding software.

My first task was to find a rig that would enable me to utilise the camera in the phone and add the important adjuncts such as lights, wired microphones and wireless microphones.

LINKS:

for Smallrig click [HERE](#)

For Rode click [HERE](#)

For Moment click [HERE](#)

The rig I chose was a Smallrig phone holder. Like all Smallrig products they are made of metal and built to last. With the allen key neatly stowed in each handle the connection is rock solid.



The pan tilt fits neatly on the back of the Sony Z90 camcorder giving a fantastic monitor using the Hollyland Mars X featured in the last edition of Border Post. With 3 devices picking up the feed from the camera the Director, Producer and DOP can monitor each shot and even make their own recording (1080p).

Turning to taking movie/ pictures, the phone bristles with 4 different lenses. However, only 1 (the 26mm lens) has the sensor stabilisation. So to get the best results you need to add lenses.

Moment lenses provide all the options including a 1.33 anamorphic lens which works seamlessly with Filmic Pro to give you that cinematic letter box look with lens flare on night shots. This is normally reserved for the top end cameras. The Smallrig phone holder provides a very strong attachment for the lenses and ND filters. The whole set including a variable ND filter that fits neatly over the lens costing about £700 and will fit in your pocket. Watch e-bay and you can pick them up at half price.



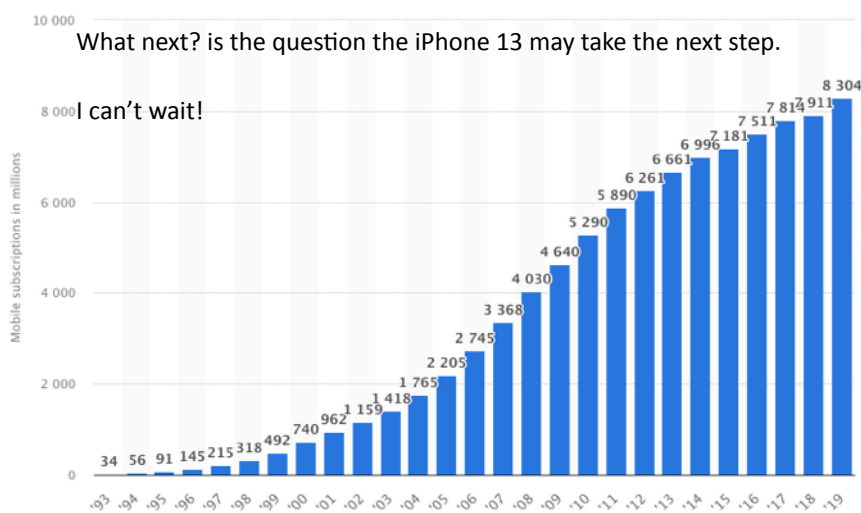
With Rode coming up with the Rode Go2 allowing a two channel recording into the iPhone (not yet individually controllable) and the ability to have a headphone monitor connected to the receiver, you are all set to make you movie with nothing more than a tripod and your pockets to hold the kit.



There is also a whole new world of speed editing on this phone where clips can be cut to fit the Script just minutes after you have taken the shot. Transfer to Final Cut Pro is just one press of a button away.

This is the workflow of the future, even when filmed at the highest settings utilising Dolby Vision, the basic edit can be done in the camera.

What next? is the question the iPhone 13 may take the next step.



Editor's Note



Well it's Summer now and it rains a lot! That has not dissuaded the 3 teams from stepping up a notch in their productions over the past few weeks. It's great to have been involved in making a real film (like the old days) and feeling the pressure of making it work on the day. It's also so good to see the passion for making movies within our Club has not gone away with the Covid lockdown. We will be watching some great movies at the next meeting which I hope will spur us all on to producing another Club Block Buster before the year end. Come on you scriptwriters! Happy Summer filming! Philip and Brian



Next Meeting

6th August 2021 Another completely virus free, on line meeting.

More Dates

3rd September - Documentary Comp.

1st October - Inter Club Comp.

Your Club Contacts

	Name:	Email:
Chairman	Mike Sanders	chairman@surreyborder.org.uk
Vice Chairman	Philip Morley	
Hon. Secretary	Rita Wheeler	secretary@surreyborder.org.uk
Hon. Treasurer	Gillian Gatland	
Webmaster	Dave Rayers	
Competition Officer	Tim Stannard	
Digital Engagement Officer	Jim Reed	
Public Relations Officer	Kathy Butcher	
Editors - Border Post	Philip Morley & Brian O'Connell	
Social Events	Committee	

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, Mike Sanders, Lawrence Clerk and Lucienne Suter, Jack Visser, Dick Grainger and Rita Wheeler

COPY DEADLINE! September 2021 issue will be 14th of August so keep it coming. Late copy will be carried over to the next month. Thank you for your co-operation - 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

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

