



australian videocamera

AUSTRALIA'S ONLY DEDICATED PUBLICATION ON ALL THINGS VIDEO

ISSUE #72

Todd Sampson's Body Hack

BMD Pocket Cinema Camera

Canon XC15

DJI Mavic Pro Drone

dSLRs for Video?



DaVinci Resolve

Reallusion CC

What Price Security

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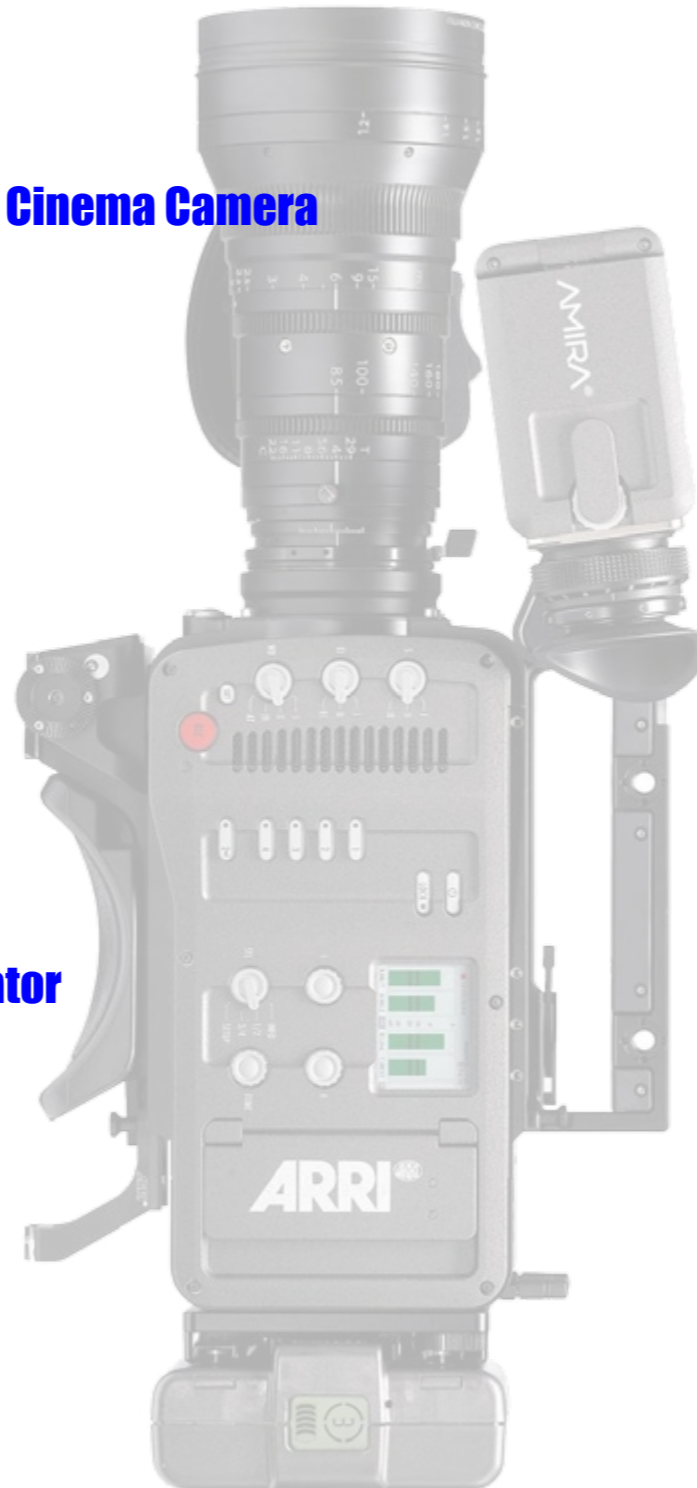
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table of contents

- 4 **From the Editor**
- 6 **News**
- 8 **Review: Blackmagic Design Pocket Cinema Camera**
- 10 **Review: Canon XC15**
- 12 **Todd Samson's Body Hack**
- 16 **Review: DJI Mavic Pro**
- 19 **Learn DaVinci Resolve**
- 20 **dSLR for Video Discussion**
- 22 **Tutorial: Reallusion Character Creator**
- 24 **What Price Security?**
- 26 **Interview: The Bull Twins**





from the editor

Welcome to the latest edition of Australian Videocamera! In this edition we look at the new Canon XC15 and have our very first play with a Blackmagic Design product, the Pocket Cinema Camera

There are software reviews and tutorials, a feature around the very popular Network 10 TV show Body Hack with Todd Sampson and I interview two aspiring actresses that seem to do absolutely everything together!

David Smith tells us all about his brand spanking new DJI Mavic drone, and I have written a piece a little left of field piece on the importance of security.

Has GoPro stumbled? It would appear so as reports out of the US say it is closing offices, laying off staff and shelving "anything that's not making money" according to CFO Brian McGee.

This follows on the heels of GoPro's disastrous Karma drone launch that saw models being recalled after issues with the device simply falling out of the sky and purchasers offered a free Hero Black camera in compensation.

Competition in the so called "action cam" segment of the market has also been damaging with many established companies including Sony and Nikon releasing competing cameras and any number of Chinese made models saturating the market, most far cheaper than GoPro's pricing strategy.

I'd also question the viability of GoPro's investment of \$105million in the software Splice and Replay to obtain a mobile video editing app when these tools already exist. It is now shutting this division of the company down.

Where to from here? We'll have to wait and see.



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Front cover image of **GRM Volvos** shot at the V8Supercars meeting on the Gold Coast, the Castrol 600, October 2016

Photo courtesy **Ross Gibb Photography**

David and the Team



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news from out and about...

Budweiser the newshound has really been out and about this month digging up the news (while trying to find old bones)



Screen Australia announces \$2.5 million for Enterprise Industry and People



Since its inception Screen Australia's Enterprise program (Industry and People) has provided funding to local companies to explore new ideas and business models, develop innovative projects and cultivate the careers of emerging talent. Enterprise program alumni include the likes of CJZ (Go Back To Where You Came From), Jungle (Here Come The Habibs), Ludo Studio (Doodles, #7 Days Later) and Werner Film Productions (Dance Academy).

From this round of Enterprise six companies and five individuals will share in \$2.5 million from across the Industry and People strands. The successful proposals from this round in-

clude a screenwriting development initiative by Scripted Ink. in partnership with the Australian Writers' Guild; giant screen cinema projects from Jennifer Peedom (Sherpa) and Jo-anne McGowan (Art + Soul); targeted content development; and placements with leading industry producers

Freedman Electronics Group Breaks Ground Into Ambisonic Audio



On the eve of its 50th year in business, The Freedman Electronics Group, home to pro audio brands RØDE Microphones, Event Electronics and Aphex, expanded its company portfolio today, purchasing the surround sound recording marque SoundField from TSL Products, the industry leading broadcast equipment manufacturer.

SoundField invented 360-degree surround sound – or ambisonic – audio capture technology in 1978, and remains the premier brand in the world. Today the range includes innovative ambisonic microphones, and systems/apps for

broadcast, music and location recording. "The applications for cinema, home theatre, music, gaming and, crucially, the rapidly growing Virtual Reality medium are astounding. SoundField created the technologies that are now benchmark equipment for capturing responsive atmosphere and a stunning sonic world," added Freedman. "Oculus Rift, Playstation, Google, Samsung, HTC, even Facebook are all exploring and expanding their immersive VR experiences. But, to quote George Lucas, 'Sound is 50 per cent of the movie-going experience.' SoundField and RØDE will lead the way with immersive audio capture."

Blackmagic Design Announces New Video Assist 2.3 Update

Blackmagic Design today announced Video Assist 2.3, a major new update for Blackmagic Video Assist customers that adds 3D LUTs to both models. This update also adds features to the 5" Blackmagic Video Assist including improved DNxHD and DNxHR support, false color monitoring, expanded focus options and new screen rotation features. The Video Assist 2.3 update is available for download now from the Blackmagic Design website and is free of charge for all Blackmagic Video Assist customers.

Customers using the Video Assist 2.3 update can now



news from out and about...

load up to six 3D LUTs when monitoring video on set with their 5" or 7" Blackmagic Video Assist. 3D LUTs have become an important part of digital filmmaking because they transform the camera images into a look that closely approximates the final look the director wants. The benefit of monitoring with 3D LUTs is that the crew can see the footage as the director intends it, and it's completely non destruc-



tive because the original camera footage remains untouched. The six 3D LUTs can be stored and recalled at any time by the user and this new feature is available on both the 5" Blackmagic Video Assist model and the 7" Blackmagic Video Assist 4K model.

For customers using the 5" Blackmagic Video Assist model, this update adds new features that were previously released only on the 7" Blackmagic Video Assist 4K model.

These new features include the ability to record to DNxHD and DNxHR files in MXF format which improves compatibility with Avid systems running on Windows. In addition, customers can now choose between DNxHD 220, 145 and 45 bit rates, or between DNxHR HQ, SQ and LB formats when recording.

The Video Assist 2.3 update also adds false color monitoring exposure tools to the 5" Blackmagic Video Assist model. False color exposure tools make it easier to properly set exposure in different parts of the image by highlighting specific color ranges of luminance with a solid color overlay. For example, green indicates neutral grey, while pink tones are good references for skin, which is typically one stop over neutral grey. Using false color helps camera operators keep exposure consistent from shot to shot.

In addition, Video Assist 2.3 update also expands the options for focus assist so customers can now choose whether they want to see red, green, blue, black, white or traditional focus peaking indicators. This makes it easier for customers to accurately adjust focus in a wider range of scenes and under a variety of different lighting conditions. Customers will now also have the ability to manually control the screen orientation and turn off the auto rotate feature which makes it easier for customers to use the 5" Blackmagic Video Assist model with handheld gimbals and other equipment designed to

SONY expands FS series with new FS7 II camcorder

Sony is expanding its Super 35mm FS series with the new FS7 II camcorder. The latest model builds on the original

FS7's strengths by adding advanced features including Electronic Variable ND technology, a lever lock type



E-mount, and a new mechanical design for faster and easier set-up. The new FS7 II camcorder supports Sony's a Mount system, which includes more than 70 lenses to suit every budget and requirement.

Since its introduction in 2014, Sony's FS7 has become one of the most widely used cameras in a range of production applications. While it remains in the professional camcorder line-up, the new FS7 II will equip creative professionals with a broader range of creative tools and features that Sony derived from actively listening to end users' feedback.

Designed for long-form shooting and production applications, the new FS7 II camcorder is extremely suitable for documentaries and independent filmmaking.

If your company has any news you'd like broadcast to our readers, please send any releases, case studies etc to david@auscamonline.com.





review: blackmagic pocket cinema camera

Where does the Blackmagic Design Pocket Cinema Camera fit into the scheme of things? David Hague attempts to find out



I can honestly say I have not come across a camcorder like the Blackmagic Pocket Cinema Camera.

What initially seems like a relatively simplistic beast I feel actually has a large learning curve as I discovered in my first two or three days of playing with it. At around AUD\$1500 for the body only, it clocks in at around the same price as a mid-range dSLR, but that is where the similarity stops believe me.

Firstly, the specifications; The Blackmagic Pocket Cinema Camera – let's call it the BMPCC for brevity – has a 12,48 x 7.02mm sensor and uses the micro four thirds mount type for lenses meaning there is a large range available. To our test model we screwed the excellent Panasonic 12 ~ 60mm unit.

There is no 4K shooting (as yet) so you'll be staying with 1080p HD movies for now, storing footage on a high-speed SD card. And we do mean high speed.



The

BMPCC has an all metal body making it feel very solid and deceptively heavier than its small size suggests (12.7cm x 3.81cm x 6.60cm). But this also makes it ideal for those want to shoot unobtrusively. There is a 1/8" micro-



phone in jack and headphone jack on the left had edge along with a mini HDMI port and DC in for charging.

For any serious audio work, we'd definitely recommend something like the RØDE Video Mic over the inbuilt microphone by the way, and as we found the BMPCC very power hungry, a few spare batteries might help too. There are 1/4" hardware thread ports top and bottom showing that rigs other than a standard tripod were thought of at conception, such as larger drones or perhaps as a "crash cam".

Along the top edge are three buttons for left, play and right and a red button acting as you might guess as "record".

The back of the unit has a 3.5" fixed LCD that is not a touch screen, a button labelled Iris, another for focus, an on / off button and directional arrow buttons with a centrally mounted OK button.

When the BMPCC is turned on, a series of current settings are listed across the top of the LCD. Be aware, the text is extremely small! In order to change them, the menu key is pressed and using the directional keys, you can then scroll through options for



review: blackmagic pocket cinema camera



against other cameras it was like chalk and cheese so perhaps an investment in something like Blackmag-

Resolve had no problem opening the resultant files.

There is no question the Blackmagic Pocket Cinema Camera is a quality product. With 13 stops of dynamic range, a Super 16 size sensor, lossless ProRes and CinemaDNG RAW recording and the flexibility of the micro four thirds lens mount, it lends itself to a variety of situations from documentary making to news gathering.

Metadata, Settings, Format Card, Focus Peaking, Meters and Frame Guides.

ic's own Video Assist Recorder / would be in order, although now we are cranking the starting price up of course.



The drawbacks are a steepish learning curve, the potential need for an external monitor under certain circumstances and its power hungry nature.

It's not a camera for everybody by any means, but nonetheless it is worth a look if you feel it has a place in your workflow.

Both MAGIX Vegas and Blackmagic's own DaVinci

It was playing around with these settings and a couple of calls to Blackmagic's local distributor, Melbourne based **New Magic** support team to get the correct settings. Initially all I was getting was an almost non-existent image on the LCD and video that was blown out to hell and utterly unusable!

As a consequence, focussing did prove to be a challenge and I think that if I was doing it on my normal subject of choice, motor sport, a fast-moving target would be a REAL test.

There is no auto-exposure either; the iris buttons sets the f-stop, so the zebra mode is used to compensate by setting the aperture until the lines disappear. Minimum ISO is 200 so bright light may need an ND filter as well.

Whilst I can appreciate the minimalist physical layout, I personally would love to have some rotary dials for stuff such as ISO and Iris. Another thing that I thought was constrained to the unit we had was the somewhat dullness of the LCD. When put up

When recording, you have the option of either ProRes or RAW and these both give excellent dynamic range using higher bitrates than AVCHD or MPEG. We stuck with ProRes in our tests. Note that the camera does tend to heat up when shooting.



hardware



review: canon xc15

The Canon XC15 appears to be a “bridge” between a dSLR and the Canon C100 thinks David Hague

In the tech world, the word “hybrid” has become a bit of a favourite if not a little hackneyed.

But in terms of the new \$3499 Canon XC15, it is perhaps an apt term for it as what we have here is a camera that tries to be a bit of everything to a large degree.

This is not a bad thing; it would be if it failed miserably at the job, but except for a few quirks that I am sure will get addressed as the model evolves, the XC15 performs admirably at the tasks a user needing such a camera would throw at it.

So what does that all mean? Well the XC15 would on face value appear to be an upgrade from the XC10, a model that was ostensibly a video camera also designed to take 12Mp stills, and that is how Canon marketed it.

But Canon is treating the XC15 more like a dedicated video camera that is a bridge between a dSLR and the C100. But yes it

does still take 12.0Mp stills, just that Canon doesn't seem to be concentrating on that aspect.

The Technical Stuff

The XC15 is a 4K camcorder as well as HD, but to store the 4K you need to use a CFAST card in the on-board card slot. HD can be stored on a standard SD card. Imagery is captured by a 1” sensor and Canon's DIGIC DV5 image processing engine. For both types of recording the XF-AVC H.264 codec is employed.

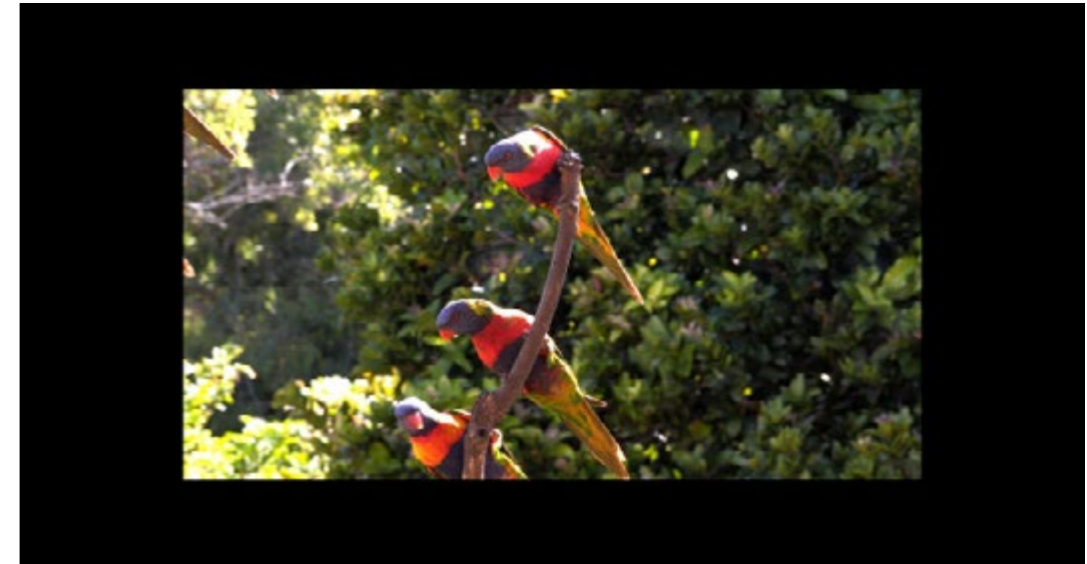
The fixed lens is a 10x optical 8.0 – 89.5mm focal length, equivalent to 27.3 – 273mm in 34mm terms.

There is no dedicated viewfinder; instead a hood (called a “loupe” I am told) is placed over the touch screen LCD, and while it takes while to get used to, in





review: canon xc15



To play video, click the image above

bright sunlight it works well. And super bright sunlight is one of the quirks I mentioned.,

While there is an inbuilt 3 stop ND filter, in really bright conditions you may need a screw on ND filter as well, as the camera only stops down to F11. Situations that immediately spring to mind are in the snow or on the beach and the ocean.

Other important specifications include both slow and fast motion capability, a 5 second pre-record cache, the ability to extract 8.29 megapixels stills from 4K imagery, an add-on audio module facilitating twin XLR microphone inputs and automatic and manual iris control (via a control wheel).

In use, the XC15 has a wonderful ability to “set and forget”; once you have dialled it into a specific environment, then it just does its thing without a need for further interaction. Image quality is fantastic and I am told that

the colour profiles closely match the Canon C300 Mark II.

The ergonomics are equally good and if you take off the audio module, it hunkers down to a quite a compact camera. I especially like the rotating handgrip.

The 4K shooting ability, which is glorious, will future proof you for some to come, and there is the ability to also shoot HD of course for those that don't need 4K as yet.

On the downside, the XLRs can be a bit of a battery drain so the DC input port is a useful addition for studio work, others agree with me that a couple of more programmable function buttons would be nice and hopefully another couple of inbuilt ND stops are added.

Otherwise, you would be very happy using the Canon XC15 I think, especially if you aspire to its bigger sibling but can't quite justify the coin.





todd sampson's body hack

feature



Taking a Sony F5 into the high Himalayas brings its own share of unique issues.



todd sampson's body hack

For most DOPs shooting in the cold brings its challenges but when the cold comes hand in hand with climbing a mountain in the Himalayas, that's a whole different ballgame according to Sydney-based cinematographer Tim Hawkins.

Hawkins explained, "I've been a Sony F5 owner for almost two years and a Sony user my whole career. Of all the Sony cameras I've owned the F5 is most definitely the one that has revolutionised my shooting style. Put simply I love the F5 and the pictures it produces. I've always had a love hate relationship with my cameras as they often seem to have a life of their own and my F5 certainly does sometimes push my buttons. That said when I was asked if I'd be willing to shoot the Himalayan Sherpa episode of Todd Samson's Body Hack I knew it was the perfect camera for the job."

Hawkins was told it would be a challenging shoot on many levels namely personally, professionally and logistically.

He continued, "It was mentioned that, as with any high altitude mountain shoot, there is a fair chance the crew may become a part of the story! The executive producer then went on to explain to me that they had also chosen the world's most difficult trekking peak, Lobuche East."

Lobuche East sits just below Mount Everest's peak at 6200 metres. The trek would take

17 days and feature a push to the summit where the crew would ascend 1100 metres in a single day in extremely difficult climbing locations.

Hawkins added, "After accepting the role I started thinking about the camera. I really wanted to shoot the episode with my F5 and cine lenses but had concerns with how it might function at extreme altitude, something every cameraman has to consider when shooting in the Himalayas. I also had to take into account how the F5 would handle the dust and dirt below the snow line and what would it do above that snow line in minus 20-degree temperatures. All relevant questions that needed answering."

The camera was only one of many questions Hawkins and the crew faced. There was also the issue of how they would travel with the F5, how they would power it and how they would wrangle the data from it.

Hawkins continued, "I was determined to give the episode a cinematic feel so large sensors were the only option for me. Our director, Jeff Siberry, agreed. We discussed cameras and lenses at length. He was a Sony FS5 fan and reckoned it would be a good choice for run and gun. He also owned a Sony A7S. I knew the A7S well and reckon it's the best second camera or gimbal camera going but the FS5 was new to me. Jeff was happy enough to make the FS5 the main camera but I wasn't convinced and wanted the F5 on the shoot. On paper the FS5 looked bloody good though - large sensor, S-Log, built in variable ND, high frame rates and small size but I still had my concerns as I knew what the F5 was capable of."

After some debate and test shoots Hawkins and Siberry decided to use all three Sony cameras. The decision was made to travel with the F5 as the main camera and use it as much as possible whilst using the FS5 as a run and gun camera and potentially the camera they would summit with. The A7S would be used by Siberry to shoot additional

elements.

Hawkins added, "The preparation for this shoot nearly made my brain explode. The logistics were complex and I was also on a mission to get as fit as possible. Apart from my three Sony cameras and multiple lenses, we travelled with a Movi M5 gimbal, two Miller Solo tripods, two LED light panels, two MacBook Pros, five GoPros, a little 1m slider and a drone. It felt like a lot of kit for an expedition but I just couldn't lose anything without losing production value."

Feeling fit and with everything packed into backpacks Hawkins, Siberry and the crew set off for their 28-day journey to Nepal and Louche East.

Hawkins commented, "Our first scene was flying into Lukla airport. Known as the world's most dangerous airport. I'd picked up the FS5 to shoot a PTC with Todd in the cabin and to shoot the landing and began to wonder whether Jeff's predictions about the FS5 were starting to come true. It was the start of a pattern that continued the whole month. The FS5 was always in my hand or close by in my backpack whereas the F5 was carried by a Sherpa in a backpack. That said I really did try to use the F5 as much as possible. Where a lot of our shooting style was run and gun and the FS5 was used, but in truth most of the content below 5000 metres was shot on the F5.

Shooting in Cine EI mode on Cine S-Log 3 using the LC-709TypeA LUT we shot a lot of off speed and I used the interval record mode to shoot all of the time lapses. I decided before leaving that I would try not to move the ISO EI rating off 2000 ISOEI as I didn't want to create any confusion with the new clients in post production. In other words I wanted them to also apply the same LUT and have correctly exposed pictures from the get go."





todd sampson's body hack



are a huge factor when attempting to fend off altitude sickness.

Things were going well as we ascended, the days were ticking by and we had a very happy productive crew. Our camera decisions were proving successful. The rushes were looking good and while sleeping with my camera batteries to keep them warm was uncomfortable, we had no technical problems. At Everest base camp we encountered our first major drama and that was my health. I was crook and as predicted the doctor said I had altitude sickness so we all needed to descend and I needed to rest. Suddenly not summiting was looking like a possibility."

Fortunately for Hawkins on his second day of rest his symptoms lessened and although still quite unwell he pushed on up past Everest base camp and onto Lobuche lower camp. Lower camp is 5600 metres and minus 16 degrees.

Hawkins wondered if any Sony F5 had ever ventured to this extreme altitude adding, "Ultimately it was the last stop for the F5. We did shoot some scenes with it up there and it didn't miss a beat. It powered on and to my surprise the batteries even held charge. The FS5 would be the main camera from now on but I had a big worry about its usability in the rough conditions. I'd been using Canon L series lenses with it and was worried that I wouldn't be able to use the zoom or focus at that height, in such low temperatures and in the dark as I was already struggling with these issues at lower altitudes. I was also worried that when things got real on summit day I wouldn't be able to operate the camera as needed."

Ed: Close. An F55 has - see <http://australian-videocamera.com/issue/august-2015/article/case-study-hillary-a-mountainous-challenge>)

Hawkins shot most of the footage wide open which did cause a few issues with the rest of the team as he explained, "I drove the Sherpas and Jeff crazy as I changed my Matte box ND filters a thousand times to get correct exposure. It was a tough challenge I'd set myself but I was committed to keeping the EI ISO at 2000 while shooting with the lens open. The fact that I did, meant

the results at those lower altitudes were magnificent."

As an expedition they were moving fast and Hawkins was working hard. The crew's expedition doctor had warned them that if they didn't slow down it was highly likely they would get altitude sickness but for Hawkins slowing down was an impossibility, "I was hired to get the job done and was relying on my fitness to get me through. An added challenge was the data wrangling as it kept me up late each night when I needed to get sleep. Sleep and rest





todd sampson's body hack

Hawkins shared his concerns with Siberry who offered up a solution pulling out several Sony Zoom lenses he'd brought along for the ride and told Hawkins to try them.

Hawkins said, "I figured out very quickly that they not only looked good enough but integrated with the camera much better than the Canon lenses. I suddenly had a servo lens zoom and auto focus plus facial recognition. Now I'd not used a servo on a lens in 15 years and never used auto focus but in this situation they were a Godsend.

I figured out I was able to use the servo lens with my gloves on and use the facial recognition with the auto focus. Without the Sony lens giving me servo zoom and auto focus surely I would have been doomed but in fact we'd been saved! I was a little worried about the batteries for the FS5 as we only had three of them and they hadn't been tested at such low temperatures. In the end we decided I'd sleep and carry the spares on me to keep them warm. With all that settled, we packed the F5 up and kitted up the FS5 for a 2am attempt at Louche East summit."

Summit day proved to be far more difficult than Hawkins imagined both personally and professionally as he concluded, "For me, it was quite a challenging technical climb and after cramp-on-point I was a broken man on a hill at extreme altitude and had no right to be shooting. I really had a rough time. With all the different kit I was carrying 17kg in my backpack which wasn't the smartest decision and to be honest cam-



era work was not at the forefront of my mind on summit day, survival was.

In truth, I couldn't operate well. It was a point and shoot situation. The camera performed really well in full auto mode and my fear about battery life was unfounded as I didn't even burn through one battery all day. As it turned out the pictures from the FS5 looked great. I used the zoom and everything was in focus. We summited a little after 10am and after an exhausting eight hours.

As an experienced DOP, it's hard for me to admit this but a servo zoom and facial recognition auto focus on a Sony FS5 really saved my bacon. I must say hats off to both the F5 and FS5 as when push came to shove under the harshest conditions I've ever shot in both performed brilliantly and neither skipped a beat."

Todd Sampson's Body Hack is currently airing on **Ten Play** and Discovery Channel International.



review: dji mavic pro drone

Definitely not a toy but that doesn't mean it's not fun to play with says David Smith



Some things are worth waiting for and in my case the wait was well and truly worthwhile. I held off buying a drone to replace my ageing and dysfunctional AR Parrot 2 until a worthy successor appeared.

I was just about ready to shell out for a DJI Phantom 4 – on special at \$1,899 – when David Hague flagged the arrival of DJI's latest offering the Mavic Pro. I placed a pre-order based on the advertised specs and also because of DJI's reputation for building high quality drones.

When the Mavic Pro arrived, I was amazed at

the build quality. This is a serious piece of video equipment that is beautifully crafted and clearly engineered to last. I charged

the batteries – one in the drone, the other in the joystick controller – then gave it a test fly. The controller has a hard-wired USB connection to your smart phone and this gives you a high definition video feed from up to 7 kilometres away. At first I thought the video had frozen on a

remains locked on the horizon.

What's so special about the Mavic Pro?

In a nutshell, just about everything! Unlike it's big brother the Phantom, the Mavic is small and weighs just under 750 grams. It also folds up to a neat little package just 83 x 83 x 198 mm in size. I will fit in your pocket!

Despite it's compact dimensions, the Mavic Pro is a real technological heavyweight. It has a miniaturised 3-axis gimbal and records onto a 12 megapixel 2/3-inch CMOS chip to record stills and video at up to 4K resolution. You can dial in various lower resolutions and at full HD 1920 x 1080 you have the option of recording slow motion at 120 frames per second.

The computer at the heart of the system has no fewer than 24 cores. There are two forward-facing cameras for obstacle avoidance and two downward facing ones that record and image of the take-off site to help the Mavic return to precisely the place it took off. There's a



still frame, but then a car drove through the image. The video is so well stabilised it's uncanny. Even when you tilt the drone to move forwards or sideways, the video image





review: dji mavic pro drone

button on the controller to initiate the return to home procedure. There are also two Doppler sensors to aid altitude precision and the system makes use of two GPS signals to ensure accurate positioning (GPS and GLONASS).

The Lithium-Polymer 3S battery gives an excellent flight duration of up to 27 minutes and you can set the low battery threshold so the Mavic will return home when the battery is getting low.

Without doubt the most endearing feature of the Mavic Pro is the Remote Controller. This is beautifully designed to fit your hands comfortably and provide numerous well-positioned buttons to control everything from the gimbal cam-



era angle to video or stills recording to control of various camera parameters. Best of all is the brilliant DJI Go app that takes you right into the heart of the system, providing fine control of camera parameters such as shutter speed, ISO, aperture and so on.

Uniquely, the camera can be focussed on near or far

objects by tapping the touchscreen of your phone. This allows you to, for example, focus on a close-up of a flower, then fly away from it, re-focussing on infinity. You have a vast array of options available in the clear and logically arranged menu system and this is where the fun really starts.

Take a selfie from 15 metres away? Point the drone at yourself, frame your face with your fingers and three seconds later it will take one or a burst of stills.

Follow yourself while riding a bike? Activate track mode, swipe across yourself and your bike and the drone will follow you from then on, always

framed perfectly on you and your bike.

Film yourself climbing a steep incline? Choose terrain-following mode and the camera will stay at your preset altitude – it uses a barometer to determine altitude,





review: dji mavic pro drone

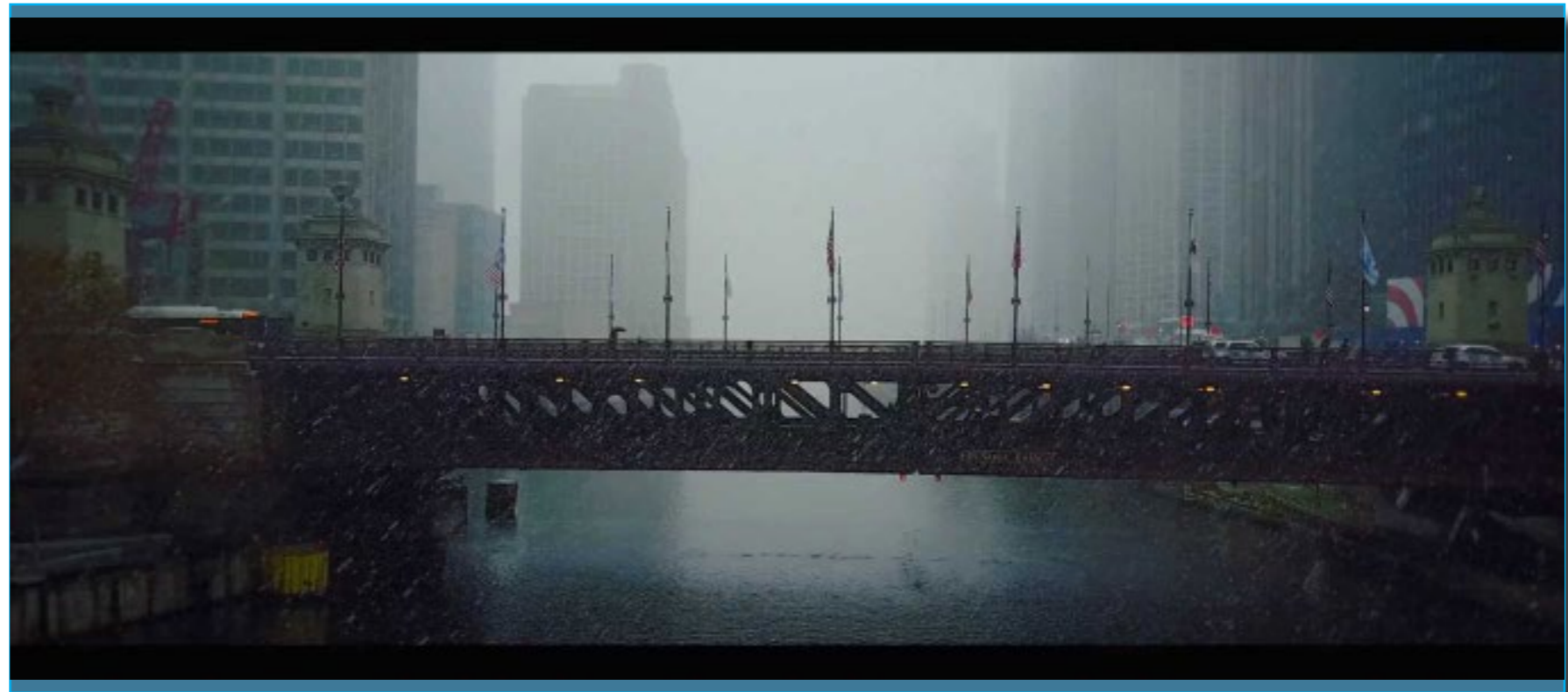
in combination with the downward-facing cameras and Doppler sensors.

A grips kit in your pocket

Drone video is everywhere these days, especially in TV shows like *Grand Designs*. But although aerial shots are spectacular – and so much cheaper than hanging out of a helicopter at \$1,200 per hour! – there are many, many more ways to use a drone like the Mavic Pro.

I tried for ages to get a clear, overhead shot of my little yellow Peugeot. The best I came up with was to park the car beneath an overhead walkway at the local council offices, then lean out over the rail to get the top shot. The result was OK but not perfect. With the Mavic, I simply flew up above the car, positioned it precisely with the brilliantly accurate joysticks, and got the perfect picture.

I have rapidly come to the conclusion that I never ever again need to rent a crane or lay dolly tracks. The Mavic can do any move I like, and it can even memorise a complex move as a series of Waypoints, then repeat the same move precisely over and over again. You can change the camera properties like zoom, angle etc and get



To play video, click the image above

numerous takes from the same complex flight path.

For extremely precise movements, such as inside a building, you can switch to Tripod Mode and the joysticks will become very insensitive. Large stick movements will result in very slow, precise changes in camera position, just like using a slider, only better.

Conclusion

The Mavic Pro drone is a technological masterpiece. It's brightly lit Remote Controller provides clear information on every possible control and camera parameter. The remarkable 3-axis gimbal results in rock-steady video even

in a moderate wind and camera really becomes a superior option for any kind of tracking or craning shot. Aerials, of course, are too easy, provided to limit your altitude to 400 feet (the limit set by CASA – the Mavic has an operational ceiling of 15,000 feet which will be great for mountaineering videos). The fact that the Mavic Pro folds up so neatly is a major plus compared to lugging the much larger Phantom around. This is a remarkable system at a remarkably low price. It is definitely not a toy, but it is also definitely great fun and was well worth waiting for!





first look: blackmagic design davinci resolve 12.5

For a no cost non-linear editing system, at first look, Resolve packs a hell of a wallop finds David Hague

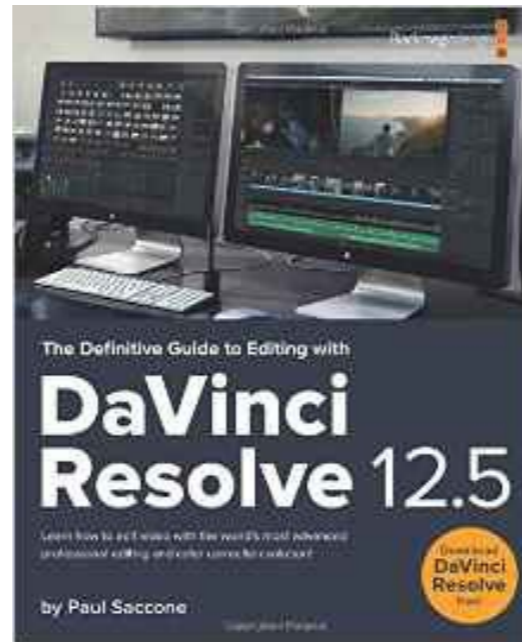


Over the years, I have used many, many different video editors – Adobe Premiere 4.2 was probably my first NLE, followed by a long stint with Sony (now MAGIX) Vegas and flutters with AVID, EDIUS, one called Speed Razor and of course I have reviewed just about every package out there over the last 20 odd years costing from hundreds to many thousands of dollars.

So, when I am told that a full on, top featured package as used by the Hollywood heavyweights is available for free, of course my ears prick up just a little and I want to know more. Is it so complex that I won't be able to grasp its workflow?

Or does it require so much computer horsepower my modest Dell XPS 2710 all-in-one won't drive it? Perhaps the claims are overblown?

As it turns out, none of these statements is true; Resolve from Blackmagic Design is a ripper of an NLE that is not complex particularly, doesn't appear to need huge horsepower (unlike say Hitfilm 2017) and all



the claims about its capability are quite sound.

As a bonus, it is available as a free download for Windows, Mac OS and LINUX.

There are some very nice features there too such as an excellent bin creation and file management system, a flexible way of marking (and keep-

ing) in and out points and timeline clip assembly that is superfast when you use the shortcut keys.

To assist in the learning of Resolve (for the latest version 12.5), there is a great tutorial book by Paul Saccone called, "The Definitive Guide to Editing with DaVinci Resolve 12.5" and this is what I have been working through over the last week. [\(US\\$38.30 from Amazon\)](#)

I am up to page 43, so about a quarter of the way through. Having been involved in the past writing tutorial books and even TV based tutorials on Windows and Office, Autocad and Filemaker, I think I am qualified enough to suggest this is one of the most well written books on a software prod-

uct for training I have ever read. It's not too light as to make out you're an idiot (or dummy) nor so heavy as to be unreadable.

It uses the metaphor I personally prefer in tutorial writing; creating a proper project and using it all the way through, building on the knowledge you acquire as you progress through the book to the project's completion. A library of assets to use to create this project is available from the Blackmagic Design website. At around 2GB, it is a big download and will take time on the fantasy system our government calls laughingly "broadband" unless of course you have access to the mythical NBN!!

I have seen enough of Resolve so far to seriously consider swapping out my Sony Vegas package in favour of it. (I am also unhappy with the fact there is no representation in Australia anymore for Vegas and I don't see any enthusiasm towards this market from German based MAGIX). If Resolve has one drawback, it is the fact that some video file types are not supported which can be a pain. For example M2T files from my old XHA1 camcorder are not recognised and if I want to use any I have to convert them. Thankfully the newer Canon codec, XMF is.

We'll have a full Resolve review when I have completed the tutorial book and had a more extensive play, but I do suggest you have a look at Resolve at www.blackmagicdesign.com and download the program.





downside of dslrs - a facebook discussion

Over the last few years, there has been a lot of noise made about using dSLR cameras for filmmaking. A recent Facebook discussion caught our eye on this subject...

What do you think the biggest limitations are with DSLRs in filmmaking?

Comments

Brian Reynolds SoundOr lack of it

Split system sound can be used BUT it adds time to the overall finished project....Time IS money.

Joseph Dutailis More so that people think or expect that they can handle sound and are then shocked when I say it's \$150 extra for me to use my recorder because your cheap camera actually can't.

Candy Christou lmao wait, people try and use their camera for sound???? have they not heard of sound equipment?

Brian Reynolds Candy Christou try handing up the DSLR media to a broadcaster.... won't touch it UNLESS its world breaking news.

Candy Christou I'm shooting my short film on a DSLR with a range of lenses that are doing the job amazingly, I have a sound tech and everything is exactly how it should be. So that's just strange to me that people

want to record sound off any camera in general.

Brian Reynolds In broadcast sound is preferred on the camera as normally it involves fast turn arounds and little or no post production on sound.

Candy Christou I see film making and broadcast very differently. I assumed Lori was asking about films.

Lori Brown Correct I am asking about films. To be more specific, I'm a little ways into amateur filmmaking and starting to grow. I currently own two FF Canon 6Ds and am wondering if I will outgrow them once I start getting into more technical stuff. Right now I p...

Lori Brown Honestly sound was the first thing I learned. A filmmaker told me an audience will forgive shitty picture but they won't forgive shitty sound because they can't identify that that's what the problem is.

Brian Reynolds Short shooting times.... Try shooting a 1hr stage show....(can't)

Thomas C Deane I can , I just used 3 cameras And switch between them

Lori Brown Because of continuous battery life you mean?

Brian Reynolds Card size

Thomas C Deane Brian Reynolds Oh that has been upped my friend , SDHC now 128gb , plus available , and DSLR

compatible, Add Magic Lantern to a DSLR to bypass the 29 minute limit , and your good to go

Dane Parsons Gh4 with 100mb 4K with 128gig card on 1 battery can...easy

Thomas C Deane My Rig is setup just so I can , deliver sound to a DSLR's mic input , But highly suggest just using as a Guide track , to sync the 24bit 48Khz , Audio on my Recorder .

Verdolaga del Real Sound!

Lori Brown So say you're using an external mic with field recorder, or have a sound guy altogether. Do you find any issues with video quality? Or focusing?

Candy Christou Not if you're doing it right.

Lori Brown Well, you're looking at a small lcd screen when focusing, do you find it's difficult to gauge whether or not you're spot on? Do you use a monitor?

Thomas C Deane This was done all on Canon DSLR , I did sound

Lori Brown I love to hear how everyone does their own thing.

Candy Christou I don't use a monitor always, sometimes. But even then it's not the best just to trust that. It just takes a lot of practice. If you zoom in and pick a spot to



downside of dslrs - a facebook discussion

focus on and zoom out and it looks good, that should be fine. It's always worked for me and the films i've made.

Lori Brown Candy Christou do you have a varifocal lens? My system (canon) all lenses are varifocal so when you zoom out focus changes.

Thomas C Deane Lori Brown Use the View Zoom on the screen instead , On most Canons ,(I use Canon also) The Focus Assist Zoom , is very useful . Always Always use it

Candy Christou I tend to use Prime lenses (Rikinon) on mine but if I don't have those, the ones that actually came with my camera do fine.

Lori Brown Candy Christou I've been looking at the Rokinon lenses. Tested the 35mm at a wedding and liked it. Can't go wrong for that price!

Claxton Moose Dynamic range with picture quality, graininess in low light, quilting and otherpicture artifacts with some forms of video compression are some video issues with some DSLR's. You'll need to compare different models. Get a good sound recordist to monitor it all. You can have a shitty picture but if the sound is mint, you'll be fine regardless. Doesn'twork vice versa though.

Zoltan Jonas HDMI make monitoring a headache, form factor makes mount-

ing them on any support more difficult. They're a pain to adapt to centralised power, short recording times, little or no control over sound, limited to specific lenses without morning adapter, usually lack proper scopes and focus assist tools...

Kyron Gray Bit depth and compression

David Hague Ergonomics by far

Vanessa Nussy latitude - the bright and dark. not much in between!

Brian Reynolds Perhaps another question should be asked how many hours of 'finished' material have people produced with DSLRs, and would they shoot another project on one or would they choose another camera..... while they are great in concept they don't seem to cut it in pro world.

Just think about this what do 'Pro' film makers use...why? If DSLRs were so great at shooting with why is there a huge market for 'Pro' cameras?

Lori Brown Good point. But there is the odd film that was made using solely an "iPhone" and won subdance (the thought of that grosses me out) is it good enough to create a movie people will watch?

David Hague As the ex Broadcast Manager of Sony Australia said to me once, Video cameras are built the way they are for a reason ...

Brian Reynolds Lori, telling a story can be done using the most basic of gear, a good story well shot and produced can be great.

A bad story shot with the most expensive gear is still a bad

story.....

You need to separate the story telling from the gear. Yes there is some link but not as much as you might think.

Lori Brown Absolutely but when it comes to image quality I think there's something to be said for keeping an audience engaged in the visual storytelling. If there are some important aspects to telling a story that a DSLR can't achieve then that should be noted.

Thomas C Deane Lori Brown The Access to all the Bokeh that glass can give you without having to spend 10,000 dollars per lens is appealing , and it does work ...

Lori Brown Ok well let's compare a 5Diii with a C100, it's not like comparing an iPhone to a red epic, are the additional capabilities marginal?

Thomas C Deane Lori Brown Check out ML on your 5Dmk3 This software will give you C300 Menus almost , Pro Light metering etc , Focus Metering , Zebras , Audio Meters , et al . its all there .

Lori Brown I've been looking into ML but the whole thing overwhelms me haha

Lori Brown I have 6Ds which one of the major differences from a 5D is the lack of additional card slot, I don't think it could be used.

Thomas C Deane Lori Brown Skype me I can show you how it works

Lori Brown Unless I'm wrong

Alle Segretti Still can't get a DSR570 in s glovebox :)

The full conversation can be found [here](#).





creating an animated character in iclone character creator

Create photo realistic animated characters for use in iClones or green screen them into your own projects.



As we have mentioned previously, iClone6 has a companion application called the iClone Character Creator.

When you first start iCC, a blank canvas appears with panels on either side. On the left hand side is the Content Manager showing all of the types of content available, and on the right hand side is the Modify Panel where

can contain items that can you can purchase separately to add to the free iCC library.

When looking at a library of content, if you want to see a different view such as small icons, large icons or a list, press CTRL+1. F4 will hide the content window and F6 the Modify panel. Pressing again returns them of course.

Let's start by adding a blank body to the work canvas. Simply double click the character of choice to load it to the work area. Once loaded, as you mouse over the body, you can see the various parts making up the body getting highlighted in yellow. These areas are called "morphs". You can also change the "full body" morph. This will not change any of the skin features but will for ex-

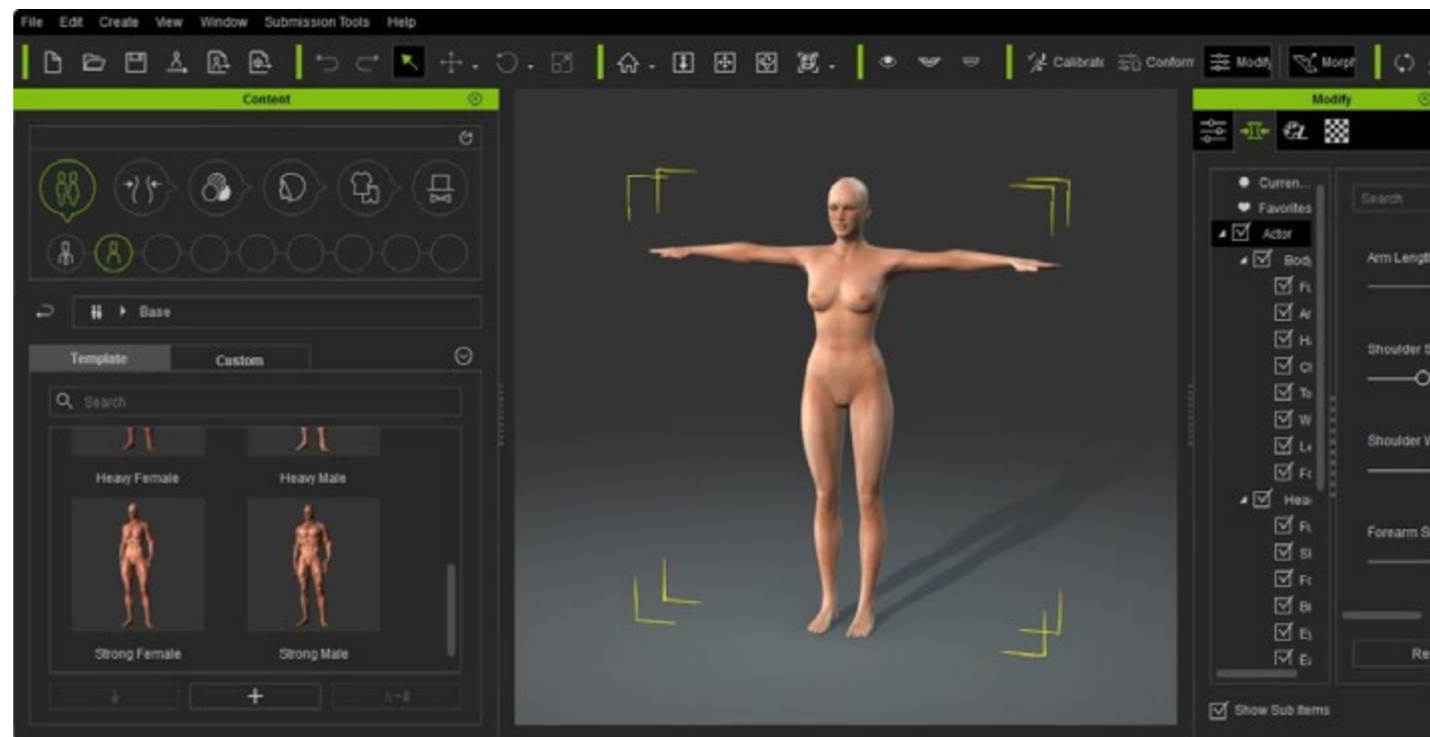
ample change the basic "strong male" character to a heavy male character while still retaining the same hair style, body hair and so on.

You can also change the overall head morph as shown and right down to teeth, eyes etc as you see here.

As the name suggests, this program allows you to create life-line animated characters for inclusion in your iClone movies, or indeed your own by using green screen techniques.

Unlike 3D programs such as Cinema 4D or Lightwave, iClone Character Creator comes with basic models you can start with, tweak all facets of the physical attributes, add clothing to and animate so the process is quite painless without having to learn the art of modelling, texturing, inverse kinematics and other complex things other programs need.

Here is a starting introduction to iClone Character Creation (iCC). We'll do this by actually creating a basic character.



individual attributes and parameters of content can be changed and tweaked.

In the Content Manager, as you run the mouse over the icons along the top, you are shown a tooltip as to what each signifies and some sub sections – for example, head, torso, eyes, teeth and so on. There are also folders that





creating an animated character in iclone character creator



perform the same action. When a slider is active ie you have selected its morph, it has a white circle inside it. To return a value to it default, just double click the slider's text label.

lets you modify the skin type of the character; the body itself will not change in proportion, just the skin. To go into even more detail and apply such things as tone, age, skin blemishes or even tattoos in the Modify Panel, select the Appearance Editor where these parameters are available to you. You'll need to activate it before use.

In the next part, we'll go into more detail and also clothe our character.

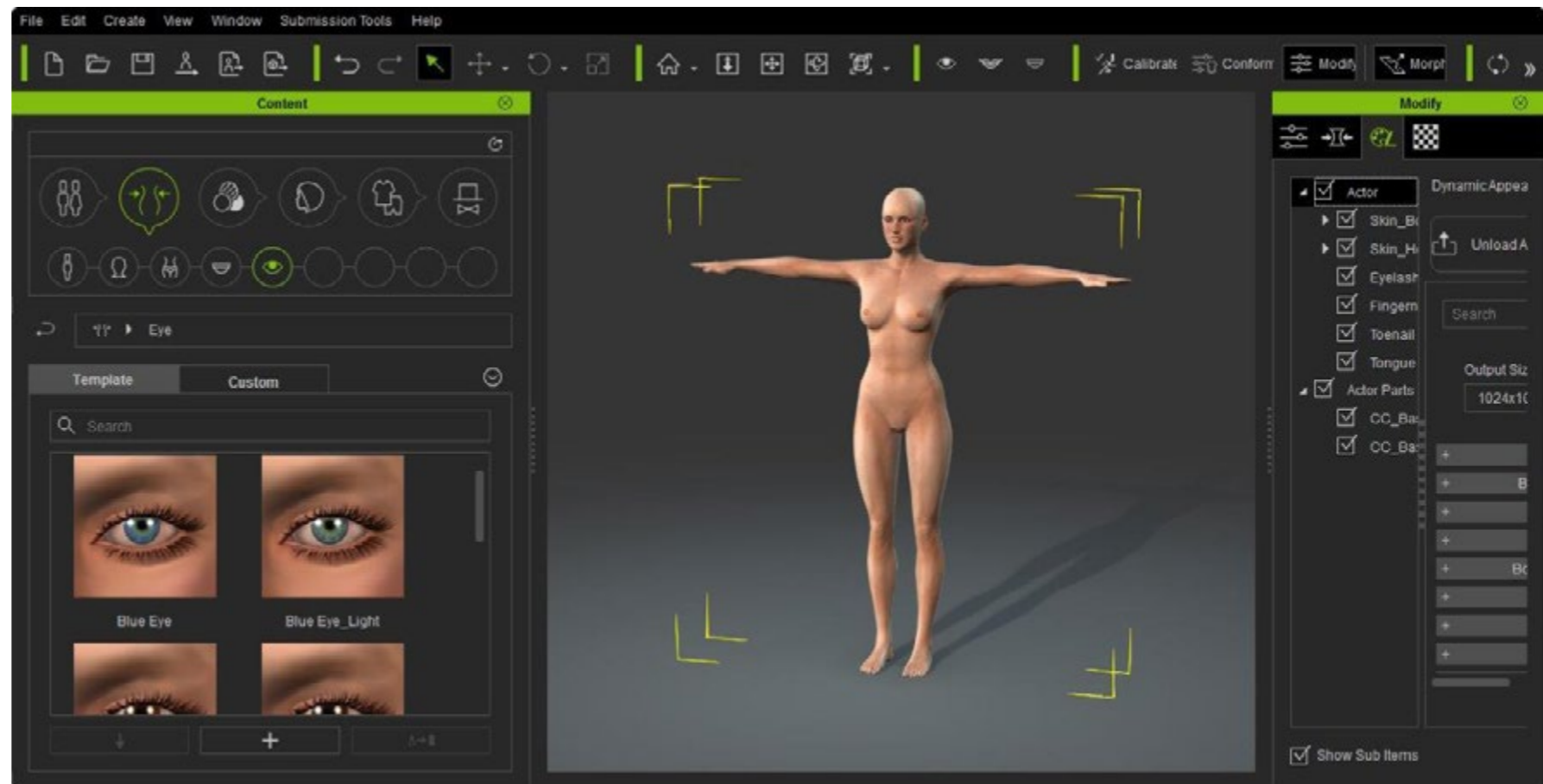
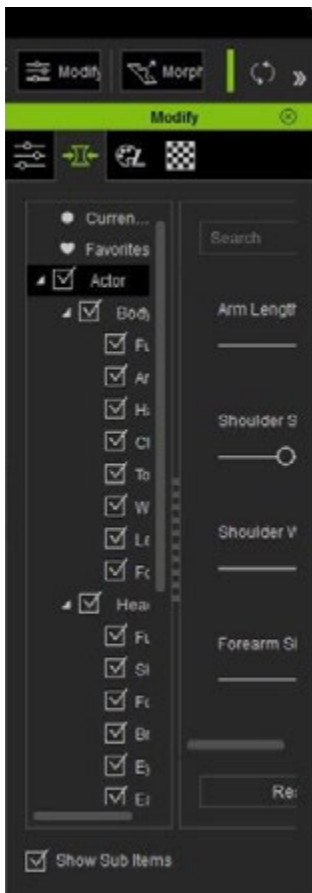
In the content manager, the skin section

To get the free version of iClone Character Creator, go to www.reallusion.com.

We'll now go back to those yellow areas – the morphs I mentioned earlier. By clicking and dragging, you can change the size of

an area such as the neck. The best way to see how this works is to experiment with different areas and see how they change.

You'll notice as you click on an item, it is automatically selected in the modify panel on the right. As you drag to increase or decrease the size, a corresponding slider shows the new value. You can also simply click the slider and drag it to

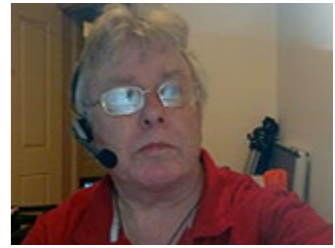


tutorial



what price security?

Just imagine if your house, studio or shop were broken into and all your video gear taken? Doesn't bear thinking about does it - whether amateur OR professional.



Quite probably the last thing you expected to see when opening reading Australian Videocamera today was an article on security. Except for a ditty on the eating habits of aardvarks obviously.

Seriously, in today's society,

the like. But this piece is more about physical security, that of protecting your goods, and especially that expensive camera / camcorder equipment and all those accessories that if you added up what you have spent over the years would make your eyes water. Or worse.

If you have ever had your home, office or shop broken into and had things stolen, you'll understand the absolute violation you feel afterwards and the rage you feel towards the perpetrators.

I had my pride and joy, a custom Holden Commodore, nicked in Adelaide on a trip back to WA about 25 years ago and all the personal stuff I had in that was taken and the interior of the car trashed by the thieving yobbos (who were later caught but being under 16 only got a slap on the wrist, if that).

The worst part though was dealing with the insurance company - which shall remain nameless and who I will never do busi-

ness with again - and for the next 12 months trying to get compensation for my effects taken from the car. The claim was for around \$5000 for a computer, laptop, clothes, a camera and other assorted bits and pieces.

12 months! And I had to continually answer damn fool questions such as "are you sure that coat was blue? I thought you said it was green".

Eventually they settled, but of course I had to replace everything out of my own pocket in the interim.

Now my point here is that if that had happened today, the chances of losing things or even having my car stolen are so much less with today's advanced locking systems and car alarms.

But if my place of residence was broken into, the losses in camera equipment, tripods, radio and standard mics, lighting, drones and so on could be 20x that figure of 25 years ago.

And that is scary!

So, I did some checking around to see what options there were.

The obvious one (apart from a big, black savage mutt)

security is a big issue and we are all aware of the big bad bogeyman of internet security, passwords, viruses and



ACCESSORIES



what price security?

was a monitored alarm system from one of the large companies and a quick check of the internet seems that these can start from \$2 / day depending on the amount of coverage, the number of detectors, alarms and what not, plus installation costs.

Let's say \$800 a year. And if you move you must have it all installed again.

Now remembering we were in the process of reviewing a new drone from Swann (the Skyranger) I recalled that on their website was a mention of security products. A quick mouse on over and sure enough, Swann did have a large range of mix and match bits but what caught my eye was a sort of all-in-one system that not only combined all the gubbins to put together a pretty fine security system with cameras, alarm, door and window sensors and a smart "box" tying it all together, but also had the even more clever things for complete smart home technology, letting it accept other devices that could be controlled from a smart phone or through the internet.

And all this for a little more than the cost of one year's monitored alarming. You just have to install itself – and how hard can that be for the average person with a hammer

like me? (Although I suppose there would be folk who might get in a licenced sparky or some such thing, but any half decent handyman would cope with it trust me).

As you can see from the photo, there are four cameras that can be placed in locations that are potential entry points or to cover a large open area, and these are all full 1080P high definition cameras cabled back to the smart box containing a 1Terrabyte hard drive, good for 80+ days storage. They can also "see" in the dark up to 30 metres. If you prefer wireless, then a more upmarket kit is available.

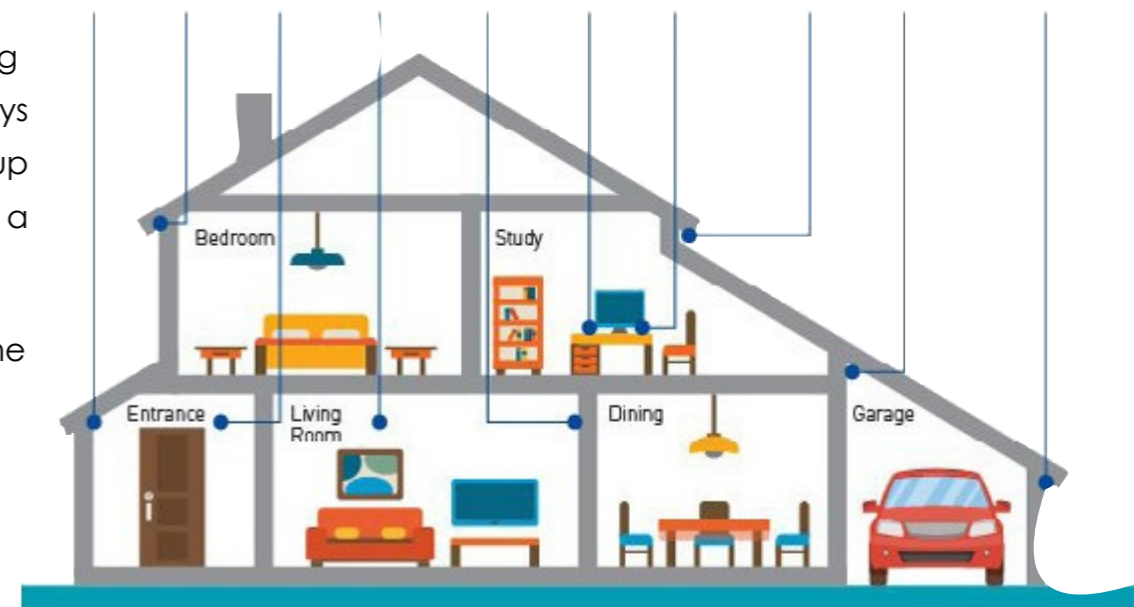
When you are off site, you can see what the cameras are seeing via a smartphone app. Stored video on the DVR can also be played back remotely.

Software allowing you to control the system has lots of neat little functions such as customizing different modes for when you are at home or away from the premises, work by intelligent rules and scheduling and even look after the control of smart locks, appliances, climate control, lights and energy usage! Swann say up to 100 different smart devices can be connected.

So next time you pack all that expensive gear away in the cupboard ready for the next gig, spare a thought of

What can I do with this system?

This Smart Series System protects your home inside & out for ultimate peace of mind 24/7



what would happen if it suddenly wasn't there as some lowlife had broken in and walked off with it when you weren't around?

For more information, see <http://www.swann.com/au/swdsk-850004b>





interview: the bull twins

Melissa and Tiffany Bull are undoubtedly identical twins. And they also share a passion for acting. Australian Videocamera's Editor David Hague caught up with them.



How did you start your acting career?

We started going to screen actors when we were 16. We only had 4 lessons and we were very nervous but we felt like we had to do it because we just felt it was right. Coming from a small town in Victoria we ran out of money to travel to the lessons so we had a break for a few years and then went to another beginners acting course with Paul O'Brien in Melbourne for 8 lessons.

Then had another break for a couple of years, worked at different jobs, then moved to NSW and decided that we want to take this seriously and work as professional actresses so we've done a professional show reel and started auditioning!

We got casted as twins supporting roles in a horror film called Rags which is yet to be released in film festivals. You can check out our acting reel on the next page or at [Vimeo](#)

As an actor, what sort of work might you be involved in?

Films, short films, some modelling shoots

Are you working in something specific at



the moment?

In talks with a producer cant say too much yet but keep your eye out.

Do you consider a professional qualification a necessity in your craft?

No we don't think it matters. If you're talented and have a good acting reel that looks professional and you can deliver a great performance i don't think it matters what's

on your cv. And networking it's all about connecting!

Is it seen by potential casting agents as an advantage over others?

To some agents possibly recommendations probably help too.

What actors inspire you or do you particularly admire?

So many but especially Jennifer Lawrence as she's close to our age, just very natural and real. She expresses such real emotions on screen she is amazing. Vera Farmiga is incredible - we fell in love with her after her incredible performance in Bates Motel, bringing Norma to life and we are a fan of horror The Conjuring she is also in. Leslie Mann is our favourite comedy actress so natural and funny in every role.

Any particular film or TV show you'd have loved to have been/be involved in?

Hmm we love *Game of Thrones* obviously! (Who doesn't) it would be most

Actors dream to be a part of a tv series like that. And the tv series *Friends* we love every episode!

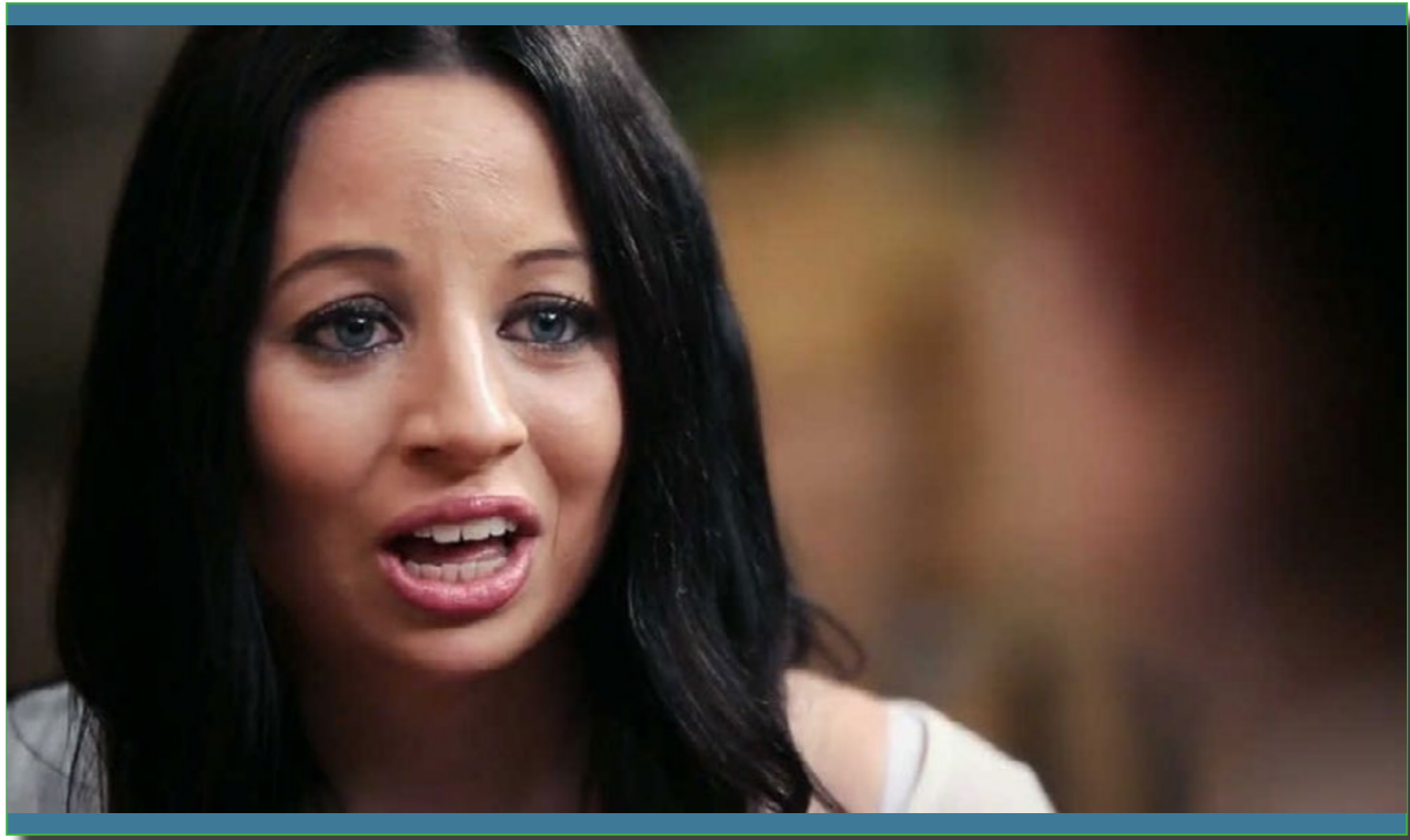
And we would love to be a part of a franchise that would be incredible like *The Hunger Games* and *Harry Potter*!!

What is your favourite acting genre? Action? Romance?





interview



To play video, click the image above

Thriller? Anything else?

We love thriller and Fantasy probably the most. Also Comedy it's just so much fun

What process do you employ to learn lines? Anything special?

Luckily we both actually have a good memory so we just go in separate rooms

and cold read till we know our lines.

Do you get nerves prior to a gig?

Yeah we always do but mostly excitement now.

How do you deal with the stress of it all and how do you relax when not working?

We try not to stress any more there's no point. We stay passionate and know we will keep working till we make it

and we can do what we love for a living. Just keep focusing on our dream. We love to meditate and just stay relaxed and keep the mind clear and positive.

If you started today to decide to become a professional actor, would you approach it any different to what you did previously?

Umm no probably not just wouldn't get so stressed over everything and believe in our selves and stay positive.

Panasonic

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