Video Astronomy!

Bebop 2 Drone
Sony FDR-AX53
Hauppauge Mini-Stick Tuner
The Gnarbox
Sony Catalyst
Using Motion Tracks
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The most effective soundtrack creation tool ever built.

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from the editor

This issue contains a huge mixed bunch of reviews, tutorials, features and more!

Last month I promised you a bumper edition for the next edition, and I think we have delivered.

We cover a varied and diverse series of subjects from camcorder reviews to new product accessories, audio, editing and compositing software, one of which astonishingly for its power is totally free, a feature on video astronomy and tutorials and an interview with a Malaysian based videographer who specialises in water and aerial work.

I also have been able to have an extended play with the Parrot Bebop 2 Drone and am absolutely blown away with it. Not only is it easy to use, but the video footage is rock steady. There is some footage included here to show you.

Don’t forget to see Australian Videocamera in the best possible light, use the free Adobe Acrobat reader to view it. This way you’ll guarantee seeing all of the videos and hearing any audio.

And of course, text in purple denotes a hyperlink to more information.

Until next time and thanks for subscribing

David and the Team
news from out and about ...

All the news and new products as sniffed out by Budweiser the Dog

New Logic keyboard
Regular readers may recall I have mentioned a few times that when editing video, I use a Logic keyboard. This is special as the keys are colour coded and subtitled for keyboard shortcuts in Sony Vegas Pro 13.

If you are an Adobe Premiere, AVID Media Composer / Pro Tools, DaVinci Resolve or Grass Valley Edius user, then there are Logic keyboard versions for you too. (And the company says more NLEs are yet to be catered for).

Now the company has released new versions of these keyboards with the advantage of being back-light.

The local distributor is Melbourne based Corsair Solutions and they average USD$139.90.

New version of Sonicfire
From its new sound engine and its sleek efficient user interface with fully-integrated search, to its new Cut-Video-To-Music NLE export function, an improved Timing Control feature, and more... Sonicfire Pro version 6 sets a new landmark in music soundtrack creation.

And it comes with a brand new album: Core Ultimate, aptly named for its incredible quality and striking variety of styles. It includes a themed three-track orchestral suite ideal for scoring entire movies when used with Sonicfire Pro 6’s powerful technologies, a live vocal indie-rock song that could be a chart-topper, cutting edge inspirational tracks, simple happy, upbeat music, a rave rhythm-guitar jam perfect for high activity, electronica and more (10 great tracks in all).

Owners of Sonicfire Pro versions 4 or 5 or higher can preorder the upgrade to Sonicfire Pro 6 now with its included Core Ultimate album for just $69.95.* That’s both - the new breakthrough in software-based soundtrack creation for media and this killer new album - for less than the cost of a single album. New to Sonicfire Pro? Preorder your copy now for only $179 - offer ends May 31.**

Find out why Sonicfire Pro 6 is the most effective soundtrack creation tool ever built.

LEARN MORE Preorder Upgrade Now - $69.95 Preorder Now - $179**

* Must have a version 4, version 5 or higher serial number registered to your SmartSound account to qualify. Free version serial numbers are not applicable.

Australian Videocamera will have a full review ASAP.

Win a DJI Phantom 3 Drone
Getty Images is excited to launch its ‘Let’s Make Something with Video’ competition – offering anyone in Australia and New Zealand the opportunity to release their creative flair.

You don’t have to be a creative to take part – think of an idea, pick up your camera or phone and start filming. Who knows? This could be the start of something new.
The competition is asking participants to pick one theme for your film: Mind-blowing, Dangerous, Together, Fast, Massive or Lasting. Then, create a 30-second short film using at least 10 seconds of the provided Getty Images clips. The remainder should be footage shot specifically for this project, or even something you already have.

The competition will be judged by our creative panel: Andrew Delaney (New York, global director of video, Getty Images), Svetlana Zhukova (head of marketing ANZ, Getty Images), and teams from Foxtel, The Monkeys, Colenso BBDO (Auckland), King Content, Flying Start (Auckland) and Paper Moose.

Key Prizes

- **1st Prize:**
  DJI Phantom 3 Advanced Drone for you AND
  Six months of free footage for your favourite not-for-profit

- **People’s Choice Prize:**
  GoPro Hero 4

- **Best film on each theme:**
  $150 Amazon Card

For further information or to enter the ‘Let’s Make Something with Video’ competition, please visit: http://competitions.gettyimages.com/en/competitions/let-s-make-something/the-brief#.V04q5rh9671.

Deadlines for the competition close 31st July, 2016.

**Fujinon Fujifilm Enters Ninth Year As Australian Cinematographers Society Major National Sponsor**

Fujinon Fujifilm has signed on to be the Australian Cinematographers Society’s (ACS) major national sponsor for the ninth straight consecutive year.

The company has had a long and successful relationship with the ACS that includes initiatives such as the Fujifilm motion picture film contributions which helped in the establishment of the ACS national HQ in North Sydney, being a major participant in all state and national awards ceremonies and providing support when top international DoPs such as Anthony “Dod” Mantle visit the Society.

ACS national president Ron Johanson said, “Clearly everyone at the ACS is delighted that Fujinon Fujifilm have again decided to be our major national sponsor for the ninth year. The relationship between the ACS and Fujinon Fujifilm is one built on mutual respect and without the support and the collaborative spirit from not only Fujinon Fujifilm but all our ACS sponsors, the Society would not have made the impact it has, both nationally and internationally. Our ACS National Awards, along with our ACS National Headquarters are testament to the positive relationship forged with Marc van Agten and the team. We are very much looking forward to next year where we can celebrate a decade of support from Marc and everyone at Fujinon Fujifilm.”

**The Sound Advice Tour is coming to Sydney**

RODE Microphones is excited to announce, the 32-city North American Sound Advice Tour: Audio for Filmmakers workshop is coming to Sydney! Designed specifically for filmmakers and video editors, this all-day workshop (happening on July 9th) will teach you expert techniques for working with audio at every stage of your film. From recording to mixing, to fixing problems in post, cutting dialogue, and adding sizzle with sound effects, you will acquire new skills and learn how to use powerful yet inexpensive tools that will expand your audio.

The Sound Advice Tour will be presented Mark Edward Lewis. Mark has over 25 years experience in writing and producing musical scores, re-recording mixing, developing sound design, editing, writing and directing. Along with Avenger’s ‘S.T.A.T.I.O.N’, his most recent work includes, Star Trek: New Voyages ‘Kitumba’, ‘The Holiest Thing’, and directing Star Trek: ‘Mind-Sifter’.

The price of the ticket includes the all day workshop at the Hilton Sydney, full Sound Advice download, one-month free subscription to Shane’s Inner Circle and more, for a total value of over $900!

See www.soundadvicetour.com to buy tickets.
The first products from the announcements at NAB2016 are starting to hit the streets. The Sony FDR-AX53 is one of them.

We are finally starting to see some of the new camcorder models announced at this year's NAB in Las Vegas. The first of these is the Sony FDR-AX53, a mid-level consumer camcorder supporting 4K recording and 16.6 megapixel stills. Effectively it replaces the previous FDR-AX33.

In the engine room of the FDR-AX53 is a new Sony Exmor R CMOS sensor and this receives imagery from a beautiful Zeiss lens capable of 26.8mm wide and with 20x optical zoom. The Clear Image electronic zoom goes up to 30x at HD resolution. As is becoming normal, stabilisation is via a 5-axis system that in hand held shooting provides excellent shake free and blur free footage.

All of our perfect camcorder features are included (viewfinder, mic input, etc).

Other ports are mini HDMI, multi-micro USB and remote.

Of course you can (and many will) use the FDR-AX53 in fully automatic mode and the camcorder will faithfully choose the best shooting settings for you as well as it can. But for the adventurous, pressing a single button on the front left of the main body switches selected functions on the FDR-AX53 into fully manual mode letting you choose the settings you think are optimum or experiment with different settings for effects, atmosphere and so on.

Aiding in this is the programmable focus ring, which is another “must have” features.

For fans of slow motion, this camcorder is capable of 120 frames per second in Full HD and time lapse is also supported in full 4K letting you choose the interval.

With audio, Sony claims to have reduced noise by 40% using a new microphone structure in the inbuilt mic. For an external mic, a top mounted hot shoe is tucked away under a hinged flap and the input port under a sliding door at the rear right of the main body.

Storage is to a single SDXC card or Memory-Stick under another sliding door on the left hand side of the body. Below that is another flap covering the HDMI port and to the right are the nightshot button, play and on/off button. The FDR-AX53 can also be turned on and off by either sliding the viewfinder or opening.
**review: sony fdr-ax53**

The LCD screen (and closing). When the camcorder is turned on, the integrated lens cap automatically retracts, and covers the lens again when the camcorder is turned back off.

On the top of the body are the zoom rocker switch and photo shot button.

When you tap the Menu button on the very crisp and clear LCD screen, functions are broken down under Shooting Mode, Camera/Mic, Image Quality/Stills, Wireless, Playback Functions, Edit/Copy and Setup.

These then further break down; shooting mode for example has Movie, Photo, Time Lapse, and so on.

The menus are very easy to follow with descriptive sub-titles giving a clear indication of what is happening.

In operation the **FDR-AX53** is quite comfortable to use if a little bulky. The viewfinder is preferable in bright sunlight, which is almost universal – and is my personal preference anyway. If you can live with that though imagery is very good indeed, the only flaw being the zoom tends to get out of focus on objects closer than about 150cm as you’ll see in the embedded video shoot on the first of the red leaves.

If you looking at a good camcorder with most of the necessary features, the **FDR-AX53** is worth a look and a test drive at your local camera store. Take your own SDXC card and get some footage and then find a 4K TV to play it back on. I think you’ll be pleased with the results.

The **Sony FDR-AX53** retails in Australia for AUD$1399 and more details can be found [here](#).
the gnarbox

It appears that in this world, when we want something, we want it NOW. This little device allows that (almost) with video

Question: What does the latest episode of Games of Thrones have in common with footage from action cams?

Answer: Well we (apparently) want to see them NOW. As soon as we have been skiing, racing, biking, hiking, climbing, fishing, snowboarding, snorkelling or whatever, our friends, so we are told, want to see the footage we shot straight away, not wait until the end of the day when you can upload it to YouTube or Facebook or whatever.

So, the Gnarbox was invented. Starting off with seed money raised by crowdfunding, the idea has germinated into the real live thing.

What is Gnarbox?

Ostensibly, it is a “smart” USB 128GB drive, the smarts being that it also has the ability to be a computer, WiFi hotspot and card reader. This then turns your smartphone into a video editing suite, capable of cutting, editing and enhancing 4K high definition video on the spot. It also allows trimming, making adjustments to colour or brightness and slow-motion.

Pretty nifty.

Production is just about to start we hear, and pricing at this stage is said to be USD$249 on preorder and USD$299 thereafter We’ll keep you posted.

See www.gnarbox.com for more details.

To Play Video Click Image Above
review: sony catalyst suite 2016

Sony has had the Catalyst Suite in the pipeline for some time. Up until now, it has been a freebie as Sony developed and tested the package. Now it’s for real. And costs.

Catalyst Production Suite from Sony Creative Software comprises two integrated applications, Catalyst Prepare and Catalyst Edit.

Although conceptually based on Sony’s superb Vegas Pro software, Catalyst has been rebuilt from the ground up in order to better handle today’s crop of HD and Ultra HD formats. Catalyst is also free from Vegas’s dependence on Video for Windows and is therefore better equipped to handle Open FX plugins and more importantly, graphics memory acceleration.

Catalyst Prepare
This app presents itself as the ultimate pre-production assistant, primarily designed — I think — for use on location to organise, back up, transcode and colour correct your video pretty much as it is shot. A great concept and I can imagine this will be a huge time saver in terms of getting properly conformed video ready for serious editing in Catalyst Edit (or any other NLE for that matter).

There are two main tabs:
Organise allows you to storyboard your project and get all of your media properly sorted.

Edit lets you trim your clips and verify shots on-set, including Sony RAW and S-Log clips. Colour grading tools are instantly to hand for simple first-pass colour grading.

This is a very useful and well thought-out ap-
review: sony catalyst suite 2016

Catalyst Edit

Not to be confused with the Edit tab in Catalyst Prepare, Catalyst Edit is a powerful non-linear edit suite (NLE) capable of handling 4K, RAW and HD video.

The Catalyst Edit interface is clean and logically laid out, and various panes open according to which element has the focus. Most aspects of the interface function exactly as they do in Vegas, which is a great strength because much of the Vegas workflow is faster and simpler than almost any other NLE. For example, cross-fading either video or audio is simply a matter of sliding one clip over another. There is no need to go to a Transitions folder and drag a cross-fade onto the zone of overlap. All NLEs should do this. All available plugins are listed in the Plug-ins pane on the left – you choose the one you want, drop it onto the clip or transition and the right-hand pane immediately switches to that plug-in’s control panel. I really like this approach and on my system Catalyst was extremely fast, logical and responsive.

To split a clip, you simply place the cursor where you want and press the S key, as in Vegas.

For the most, the interface is straightforward but there are some limitations. In Vegas Pro you can rearrange the numerous panes in any way you like, and save up to ten layouts as presets. This is not so in Catalyst where the panes must remain in their allocated places. The Vegas approach allows you to customise easily for dual monitor work and to have preset layouts set up, for example, sound mixing or colour correction.

Track height adjustment is somewhat limited in Catalyst Edit. In Vegas, you simply grab the bottom of the header and drag to increase track height. If you need to, you can expand a single audio track to fill the screen: not so in Catalyst. Good news, though, in Catalyst you can use Ctrl+Shift + Up or Down Arrow to increase or decrease all track heights up to a point. Similarly, you can use the Up and Down Arrows to expand or shrink the timeline, just as in Vegas. You can also zoom in on the timeline to get at the very finest detail of the audio waveform which is virtually impossible to the same degree in other NLEs.

A couple of things that don’t work at all are the indispensable Shuttle Pro and recognition of my M-Audio ASIO sound card. The only audio device available in the dropdown is Microsoft Mapper. Hopefully these will be added in due course.
review: sony catalyst suite 2016

Speaking of glitches, I had several random white-screen crashes, especially when using NewBlue plugins. This is disappointing, although in fairness, Catalyst is definitely an evolving app and so we can expect all sorts of additional compatibility and functionality to be added over time. At least that’s what we hope. In the Sony Forums there’s heated discussion about the future of Sony Vegas and whether Catalyst Edit is a worthwhile replacement. Certainly Catalyst Edit currently has far fewer features than Vegas Pro 13, but that situation may improve over time, as is well argued by VASST plug-in developer John [Johnny Roy] Rofrano:

“I’m guessing (and this is purely a guess because I have no insider knowledge) that Sony is doing what Apple did but learning from Apple’s mistakes. Apple discontinued Final Cut Pro 7 when they introduced a totally rewritten Final Cut Pro X, but FCP X had a fraction of the capabilities of FCP 7 and Apple lost a lot of customers over it. Four years later, FCP X is a powerful NLE that is being used to cut Hollywood movies once again. In contrast, Sony is still supporting Vegas Pro 13 while they build Catalyst Edit and four years from now, I’m predicting the same thing will happen... Catalyst Edit will be a robust NLE and Vegas Pro editors will happily move to it. Like I said... just a guess. Which is why I believe that Vegas Pro editors shouldn’t panic. Sony is taking a bold step. Let’s support them and see where they go.”

So these are interesting times with both software and hardware developments proceeding apace, not quite at the doubling per year of Moore’s Law, but still apace.

Conclusion

Catalyst Prepare is a welcome and well designed app that in the right hands will save time and money by conforming video from a range of cameras on the set.

Catalyst Edit is a good, clean editor that I could easily use for many straightforward editing projects. However, there is so much more power under the bonnet in Vegas Pro (think 3D manipulation or extremely powerful audio editing capabilities) that, on those grounds alone, I would not consider the switch yet.

Unfortunately, there’s a game changer that Sony snuck up on us recently which is that you can’t actually buy Catalyst Production Suite; you have to rent it using a subscription model similar to that used by Adobe and some Microsoft products such as Office 360.

There are huge discussions about this subscription model on the Sony, Creative Cow and DMN forums and the overwhelming observation is that very, very few users are happy about having to subscribe. In the case of Catalyst production Suite my objections are twofold:

1. The subscription is expensive. Currently a year’s subscription will cost US $200. I have purchased every version of Vegas Pro and have always availed myself of the time-limited upgrade price which was typically US$150 roughly every two years. I feel that is great value for such powerful software. Two hundred dollars per year is too much: consider the huge suite of programs offered by Adobe for around US$600 per year and Catalyst is just plain overpriced.

2. If you stop subscribing, your software and all projects created with it are no longer accessible. It just won’t work. This is the hot issue on the forums. One alternative model is allowing you to keep the latest version of your subscribed software – ie to ‘own’ it – if you stop or interrupt the subscription. I would consider this if it were on offer from Sony but I will never take on a fully subscription based plan.

With products as powerful as Da Vinci Resolve and Fusion available for free, subscribing the Catalyst for $200 a year looks very unattractive. Some forum members have suggested that, in the longer term, the subscription model will be financially unviable and that we’ll see an eventual return to the simpler purchase model. Personally I hope that is the case because it is so frustrating to review a product with such great potential as Catalyst when I know I will never subscribe to it. In a word: infuriating!
review: hauppauge mini-stick hd

For many years now I have been using Windows Media Centre for my TV recording.

Using a now ancient HDHomeRun network tuner gave me two channels to record with simultaneously, and I could watch another on the TV itself.

Sadly, the tuner burnt itself out after 8 years of loyal use the other week. As my TV recording and watching habits have changed, I no longer needed a twin network based unit, so looked around as to others that were available with just a single channel. Oh and were affordable.

I had tried one specific brand for a review a few months back, but gave up after breaking two of them. These were USB based and were very flimsy, snapping off at the connect between the USB “plug” and the internal circuit board with even the slightest knock. I was familiar with Hauppauge as a brand through my long standing dealings with Victorian distributor NewMagic, so requested a review unit of their Hauppauge Mini-Stick HD.

While this also is USB based, it is far more robust than the other I had looked at, and even comes with a 2 year warranty to boot.

Setting up for Windows Media Centre was a simple matter of installing the drivers from the supplied DVD, rebooting, starting Windows Media Centre and going into the TV setup section.

WMC had automatically found the device, and so all I had to do was to tell it to search for the local TV channels. It took about 10 minutes to find all 51 that are available on the Gold Coast. (7, 9 and 10 are all duplicated here, plus there is those confounded, interminable shopping channels).

I had the Mini-Stick HD plugged into a rear USB port of the tower PC, and this meant that using the Hauppauge supplied Windows Media Centre remote was not a roaring success; it was out of line of sight. Plugging into a front mounted port sorted that issue out.

The signal was clear and without any digital interference in all but the very worst electrical storm, and to date, not one program I have on the to be recorded schedule has been missed.

For those who have upgraded to Windows 10 and there have no access to Windows Media Centre [damn you Microsoft! That was a VERY bad idea], Hauppauge also supply an application called WinTV which supports TV-in-Windows, a built in recording scheduler, and high def TV.

Whilst I appreciate a system such as this is not applicable to many, I find that as I work, I can keep ABCNews 24 running in a small Windows Media Centre window and keep abreast of things as they happen (I am a bit of a news junkie). Alternatively, I can work at night or on weekends and watch say, sport – whatever is left on free-to-air that is.

At only RRP AUD$79 I also consider it a bargain.

If you do require a dual tuner, Hauppauge also have the Nova-TD for RRP AUD$189.
review: hitfilm 4 express

**Hitfilm 4 Express** can do editing, compositing, motion tracking, titling, 3D and special effects. And it's free for Mac and Windows.

In the dim distant past – say 15 years ago – when we thought of making videos, there was a distinct suite of tools we would use to cover all the bases. For starters, we of course have the non-linear editing package, or NLE for short. Examples included Adobe Premiere, Sony Vegas, Edius, Avid Media Composer and Final Cut Pro.

Next would be a compositing package for motion graphics such as Adobe After Effects or Boris Red and possibly a specialised titling package. For 3D effects something such as Zaxwerks Invigorator might be called on and any number of plugins for many of these would also be in the arsenal.

Finally, Sonic Foundry Acid could be utilised for music generation and Sound Forge used to smooth out any audio glitches.

These packages would set you back many thousands of dollars, so it is no wonder that only a dedicated few really got into the Art of digital filmmaking, usually via video clubs (many of which still exist today by the way).

Then the Videocamera changed. With solid state memory taking over from tape, and soon, the smartphone would let anyone take video and edit it. Facebook and YouTube let us put videos online for others to view and comment on. But the serious video enthusiast still needed expensive tools as the basic ones that flourished around this time were very basic.

Fast forward to today, and those tools from way back when still exist, albeit they have evolved vastly and prices have seen a drop in many cases, or pricing models have changes (think Adobe). But it can still be an expensive business for the person wanting to start out with more than 30 sec social media clips.

So it may come as a shock to learn that the game may have changed. You see a UK
company has released a package that performs all the tasks mentioned above, except for the music generation. And what’s more, it’s available for Windows and Mac PCs.

Better still, and astonishing, it’s free.

Sure, there is a big brother version that does cost, but **Hitfilm Express 4** (the free version) is a very, very capable package in its own right. The feature set is not just the basics and if you need more, then get the wallet out. Not at all. Serious editing and deep compositing, motion tracking, titling, special effects and much more are available in this package that costs zip.

Not that long ago, a package that did compositing and motion graphics could cost $2000 alone, so this gives a perspective of how powerful Hitfilm Express 4 is.

Nor are you thrown in the deep end to fend for yourself, as documentation is available and there is a plethora of tutorials available online covering all the tools of Hitfilm 4 Express in 5 minutes or so videos that are easy to follow. Indeed, project files and assets that go into making these tutorials are available for download so you can follow along.

And if you are a dyed in the wool user of another package, many of the plugins and filters that go into the makings of Hitfilm 4 Express and its bigger brother, Hitfilm 4, can be used in other host programs such as Sony Vegas Pro.

I suggest you have a look if you are a user of another product, or a new user, download and have a play. It is truly stunning what this program can do. See www.hitfilm.com

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**An example of Hitfilm 4 Tutorials**
motion track technique

Very few TV programs and movies have opening titles that are static. There is usually some movement. Here is one technique that I like.

One of the types of titling I like to do is the sort where myriads of scenes from the whole footage are paraded across the screen with a major clip playing in the background. Lot of the fishing shows on TV employ this sort of effect.

Using something such as Adobe Effects makes this dead easy, by tots not mince words; After Effects is expensive and for a new user, somewhat overpowering in its potential. So I wondered how easy it would be to create in an NLE – anything from Sony Vegas Pro (as I use) to perhaps Adobe Premiere Elements.

So here is the technique as per Vegas; simply substitute the equivalent command structure in your NLE of choice.

The Clips

1. My choice of the major trips was footage from Monaco in Europe I shot in 2011. The background clip was to be car cam footage as I drove through the principality. This footage was shot using a Canon XHA1 mounted to the passenger’s window using a Hague Suction mount. This clip is placed on the BOTTOM track so that it is playing in the background for the duration of the titles.

2. I then chose another three clips and placed them on ascending tracks.

3. Each clip’s start and end point on each track was ascertained so that combinations of clips were playing simultaneously over the top of the main background clip.

4. Next came the trickier bit. For the next to bottom clip (the first of the overlay clips), on the track header I clicked the track motion button, opening the track motion window. From here, the clip’s starting position was set and a keyframe generated. The time of the end of the clip was then chosen and the clip moved to its end position and a final keyframe set. Make sure there are NO other keyframes on the track. (You can also change the clip size during the course of the clip’s motion can be changed here).

5. Repeat this action for the other two clips, again making sure you don’t leave any
6. I also then went to each clip and set fade in and fade outs were created so the clips didn’t simply pop off the screen. This is achieved by dragging the fade edge control at the start and end of each clip.

7. On the TOP track, I then created the text for my title making sure it had a transparent background. I made the clip zoom in from the centre of the screen for added effect.

And there you have it. Once the sequence of the steps is worked out, you can recreate this effect very quickly.

Quite complex opening title sequences with practice, forethought and a little imagination. Take at look at some TV shows such as Spooks, IFISH, Last Train to Halifax and others that all use Track Motion in their opening sequences.

You can also make use of 3D space when you get confident, making clips slide across at angles inside 3D space, or they could spin or even with masking, non-square clips!
motion track technique

Step 4(a)

Step 4(b)

Step 7(a)

Step 7(b)
review: acon restoration suite

We are always saying that audio is as important as video. This suite of applications helps you clean up any audio nasties.

In the hands of a skilled professional, sound recordings should come to the edit suite in near perfect condition. The real world conspires against this, however, and we all face situations where audio we’ve recorded is less than perfect due to weather conditions, background noise or electrical hum.

Many people are keen to digitise their vinyl record collections and this requires some specialist tools because vinyl – or even pre-vinyl – records were incredibly susceptible to dust, damage and deterioration. So how do we get from messy, less-than-perfect recordings to professional quality masters?

The answer is twofold: spend some money, then spend some time. I recently reviewed Acon Digital’s De-Verberate plugin. This module rather miraculously removes reverberation from audio recordings which, until relatively recently, was either just plain impossible or prohibitively expensive. De-Verberate offers a professional solution to unwanted reverb and does so at just US$99. Having only recently discovered Acon, I was keen to explore another of their offerings, Acon Restoration Suite. Once again I was impressed.

Restoration Suite is currently at Version 1.7.2 and comprises four modules:

- DeNoise is designed to clean up your audio by removing wind and broadband noise, as well as other annoying contaminants such as camera zoom motor buzz. It has been carefully designed to do this while preserving as much as possible of the primary audio.

As with all of these plugins, there are useful presets to get you close to what you need. For DeNoise, these are:

- Reduce AC noise
- Reduce broadband noise
- Reduce wind noise
- Reduce rumble

But there’s much more. If you click on each of these four headers you’ll get a new menu such as:

- Reduce Rumble
  - Factory Presets
  - Dialogue
  - Reduce AC noise
  - Reduce broadband noise
  - Reduce Wind Noise

- Factory Presets
- Dialogue
- Reduce AC noise
- Reduce broadband noise
- Reduce Wind Noise

- Music

Reduce broadband noise
- Reset
- User Presets

Saving and loading

The same variety of options applies to each module, so the range of available presets is huge, even before you start saving your own tweaks.

Start out by choosing the most appropriate one, then tweak it as needed, save your tweaked version as a new preset. It may be that you need a combination of repairs, so just add another DeNoise module to the chain and set it up as required.
review: acon restoration suite

DeHum has just two initial presets for 50 and 60 Hz hum respectively. Tweak these as needed to match your specific hum frequency. In each case you can do an A to B switch to compare the before and after differences and you can also listen to the audio that is being removed. This is really useful to help ensure you’re not removing too much of the primary, desired, audio.

DeClick will help remove plosive sounds such as loud clicks the crackle commonly heard on older 78 rpm recordings. A new element in Version 1.7 can even address severe thumps due to physically damaged records. There are numerous presets which will work really well according to the context of the repair and once again you can chain presets to get just what you need.

DeClip addresses distortions resulting from digital or analogue recordings that were recorded at too high a level. In digital recordings this is seen as an unnaturally flat top to the waveform peaks. DeClip attempts to rebuild the peaks based on the characteristics of the ascending and descending arms of the damaged wave.

I tried several tests to see how well these modules worked in real world situations and will post these as a video to illustrate what’s going on.

As I was recording the video, there was an excavator working nearby with a loud, variable pitch engine. This represented every home studio owner’s nightmare. Using DeNoise I was able to reduce the damage quite significantly, even though this would have to be an extreme test. On simpler noise problems the results were excellent, leaving me with a clean voiceover free of background noise. The same was true of DeHum, which was very effective in my tests.

I tried cleaning up a couple of old 78 rpm records, one a Sylvester and Tweety Pie record from my childhood, the other a 1922 recording of Benny Krueger’s Orchestra performing a song called Mr Gallagher and Mr Sheen. The results were impressive, especially given the serious noise problems on the 1922 record.

Conclusion

These are great apps serving extremely useful functions for all of the commonly encountered audio glitches that need repair. They’re affordable and professionally designed and they will definitely help you deliver the best possible audio.

The help notes are clear but concise. Although the wide range of controls is pretty intuitive, I would love to see a more extensive manual that set out the reasoning behind the various controls and how they should best be applied. Audio repair is definitely a mix of science and art and any pointers from the professionals would be of huge benefit. That said, Acon is a name to remember for affordable, pro-grade tools that really should be a part of everyone’s audio toolkit.


We liked: Excellent performance of all modules, ease of use, great value for money

We didn’t like: Nothing to dislike

Ease of use: 9
Features: 9
Build quality: 9
Value for money: 9.5
**review: parrot bebop 2 drone**

*Easy learning curve and great fun to boot. I am sure there are some practical applications...*

It's been a while since we looked at a drone, and the nice folk at Parrot thought they would rectify that by sending us a **Parrot Bebop 2** to have a play with.

Upon first opening the large and reasonably heavy box, initially the contents looked a bit daunting I have to say. However, looks were deceiving; as well as the actual drone, this also came packaged with Parrot’s Skycontroller unit designed for tablets and smartphones. This is quite a bulky unit that you wear and can be adapted for all sizes of devices. I was looking forward to trying it out, as I guessed you would get more “feel” as you do from say, a racing game steering wheel than simply a controller (or in this case phone or tablet by itself). I found out a little later you DON’T need to have a smartphone or tablet in the controller as you can fly by sight, as the software is already onboard. There is HDMI out if you want to go straight to an HDMI aware monitor.

Another cleverly thought out thing is the battery that drives the controller is the same as the one used in the **Bebop 2**.

Mounting the propellers (I think they are correctly called airscrews but I could be corrected on this) took a bit of trial and error until I discovered they had to go on at a particular place so locking pin holes matched up. Then using a supplied tool, they are twisted to lock them safely in place. Two complete sets of props are supplied.

Likewise, our unit at least came with two batteries – one on the main body and a spare. Battery technology has certainly come ahead in leaps and bounds. The first drone we ever tested back in 2013 off memory had a battery life of only about 5 minutes. The **Bebop 2** has extended this to 25! I don’t know if the spare battery had a previous charge in it, but after an hour, it was full of juice. The on-board battery also was charged.

As you’d expect, there is software to download from either the Google Playstore or iOS App Store (A Windows Phone version is coming I understand and I guess this might then also work with the Microsoft Surface and similar Windows 10 tablets).

Installing on a Samsung Galaxy Note 4 was a no brainer. To learn the ins and outs of the software as well as techniques for flying, via the software you join the “Drone Academy” and there a series of video tutorials runs you through the basics and not so basics. These are also accessible from Parrot’s online blog or directly on YouTube.

In the first lesson, you are shown how to assemble the **Bebop 2**, and how to calibrate the various onboard sensors such as the Magnetometer. Finally, you get the opportunity to fly and also record video and shoot stills.
review: parrot bebop 2 drone

The last time I tried this with a new drone, I tried it in the backyard (which is an acre) and managed to get the unit stuck up a tree within 5 mins – luckily within range of the pool cleaning pole and a chair! This time, I’ll go down the local park where there is nothing for 200 metres in each direction.

Part 2 – First Flight

Having read all the manuals and watched a few of the online YouTube tutorials, I felt it was now about time for my own personal Kitty Hawk number – although the Parrot Bebop2 is as far removed from Kitty Hawk in technology as a stone is from an Exocet!

The first flight was a mere 10 seconds, mainly as I got my front and back mixed up and nearly got my arm chopped in the process, weaving aside just in time! I also learnt at this point that it seems by default, the video camera on the drone is one whereas a few seconds into the flight, I therefore inadvertently turned it off.

As a consequence, Flight number 2 was more of a success as you can see from the video.

I can safely say that within a few minutes, you get the hang of flying to Bebop 2 very quickly. It is very stable due to a 3 axis stabilizer and reacts to the controls quickly and smoothly. There is no chance the drone can become a “runaway: from my experience. Simply take your thumb or finger off the joystick controls on your smartphone and the drone simply stops and hovers. To bring it safely back down, the large green button for this action does just that and turns the motors off.

In any emergency, say if power lines become perilously close, then there is a dedicated button to cut all power immediately and the Bebop simply drops from the sky.

A huge bonus is the screen of the smartphone/tablet shows what the camera sees.

It wasn’t long before I had mastered changing the camera angle, flipping the drone and being a little more adventurous in my control of the Bebop 2. I even went down to the local skate park and took some footage (from a safe distance of course).

I can certainly say the Bebop 2 was a show stopper down there with loads of people wanting to know about the little beast such as how much, where from, is there a camera on modeetc!

I’ll be mighty sad to give this back at the end of the 2 week period. If I had a lazy $899 hanging around ($1299 with the SkyController) I could be tempted as I can see many practical applications (no really I can!) I could use the Bebop 2 for.

Go and have a look at one, watch the tutorials and do some investigating. They really are miraculous gadgets indeed!
to the stars and ... beyond infinity!
A very exciting style of videography is that of astronomy shooting. Due to its nature and some very unexpected hurdles to overcome, it is also very challenging, and getting ‘that’ shot or video clip is extremely satisfying.

As well as the Moon, there are of course the planets to capture on ‘film’, and for the really dedicated enthusiast, the challenge of the stars and galaxies. For those that think you need to be out in the desert and have thousands of dollars of equipment to get anything half decent, think again.

One of the very best at this sort of thing anywhere in the world is Australia’s own Steve Massey, based in the suburban Fraser Coast of Queensland. His specialised astronomy website has been in place since way back in 1996, and so good is Steve, he is one of the very few people allowed private time on the Siding Springs Observatory.

He started in 1971 and Steve says he has owned more telescopes than he can care to remember. As well as stargazing, these days Steve also runs a specialist website / business dedicated to astronomy users at www.astroshop.com.au.

So we asked Steve for some tips on starting out. And as you’d expect, the prime key apart from the camcorder to be used, the major component is a telescope.

Cheap units just won’t cut it. The critical thing is the quality of the lens, and in reality you need to budget around a telescope with a decent size aperture. A rule of thumb is the bigger the aperture, the bigger the physical size of the telescope.

**Magnification**

Oddly, magnification ratios are not a primary concern. The key to better optical resolution with a telescope is aperture and the key to imaging the planets is magnification (steady atmospheric conditions) and aperture. To quote website Procular, “Some vendors will try to promote a low quality telescope by stating that it has a high magnification. Beware of these type of offers! The telescope will usually have either a small aperture or a very poor optical quality.”

These expert folk recommend that a good starter telescope is the National Geographic 76/350 Dobsonian telescope which is compact, yet powerful and portable.

A bit further up the scale is the National Geographic AZ 60/700 Refractor telescope.
to the stars and beyond infinity

Some definition is needed here; a refraction telescope uses lenses to gather the light, but better, is a reflector model that uses mirrors (which are of course cheaper to manufacture than lenses).

OK, let's say we have found the right telescope at the right budget (and this issue is given much more depth at www.procular.com.au), is there any other consideration to take into account? And this is where some of the surprising, or unexpected, factors come into play.

Consider this. The Earth is spinning in space and also revolving around the Sun at phenomenal speeds. This means that in relation to other celestial bodies, we are moving quite rapidly and therefore any image that is showing in a telescope's viewfinder is not going to hang around! Even something as close as the Moon will drift out of view within a minute and Saturn say, is visible for mere seconds at best. This means that galaxies as shown in websites such as space.com which has some breathtaking images, require more sophisticated equipment to be able to photographed or video with the long exposure times need to get first class imagery.

This primarily consists of a motorised system that allows the object to be accurately tracked thus keeping the object in the field of view. Now this is very precision kit and needs to be set up properly by defining your exact current latitude and longitude, time of day, date and other location issue.

Ideally therefore, the telescope is placed in a permanent fixed position so that this calibration is not needed on a regular basis.

Camera

OK, so what sort of camera is best for video astronomy?

Well the options are wide open on this subject as so many types can now shoot video from passable to excellent. As a consequence, a dedicated camcorder from the likes of Panasonic, mirrorless cameras such as the Panasonic TZ80 or a DSLR can be used.
Once the camera has been chosen, you need to buy an adaptor ring and kit to turn the telescope from a simple – well telescope – to a super dooper lens, replacing the standard lens in the camera.

A new option is from iOptron. A snazzy bracket affair is designed to attach a standard smartphone to your telescope making it suitable for planetary or deep space video. From here, it is all down to experimentation and trial and error to ascertain aperture settings, focus, shutter speed and so on, and this is where an external monitor is invaluable, showing how good or bad a shot is and how to compensate.

Of course, this is part of the fun and challenge and as you master these basics, you’ll get an immense sense of satisfaction and pride as your videos make others ooh and ahh at your talent!

Sure, there is some preparation and a learning curve, but this applies to videography as a whole whether you are shooting the stars or wildlife, sports or even weddings.

But you’d better believe it, it is all worth it to get videos like those of Steve Massey and his compatriots.

Tutorials
To get further info and tutorials, at Steve Massey’s website there are a number of very good books he has written to assist and they are worth the investment to get you up to speed. Steve also suggested an excellent book which he co-authored called Atlas of the Southern Night Sky and due out in its 4th revision in September. Here is a TV interview Steve had regarding the book.

As a tutorial, Steve Massey also pointed us to a video on tips on shooting the International Space Station.

And for the raw beginner, there is another video with some introductory information on telescopes on our website.

When you have shot some video, how about letting us know so we can pass it on! And Steve tells us feel free to contact him via his shop’s website for any advice you may need on getting up and going!

Finally, Steve also gave me a link to some brilliant planetarium software available for Mac, Windows and LINUX called STELLARIUM, Its around 150MB and free.

There are more videos, animations and tutorials on Steve Massey’s website.

Images / video courtesy Steve Massey.
to the stars and beyond infinity

Screen Shot from Stellarium Software
There are many specialized disciplines inside the all-encompassing term “video”. We chat to an expert in one of them.

DP Laurie K. Gilbert SOC is an expatriate Aussie based in Shah Alam in Malaysia, specialising in aerial and offshore marine shooting. We caught up via Facebook and email recently to find out a little about Laurie and how he deals with some aspects of his profession.

How would you describe your job?

Global cinematographer with specialist helicopter aerial and offshore marine skills.

How did you get into it?

Won a Royal Scholarship to study at the London Film School http://lfs.org.uk and then chased my professional instincts getting jobs whilst living in New Zealand, Australia, Hong Kong, Singapore and now Malaysia.

Do you have any professional qualification?

Two years study at London Film School

What sort of jobs might you be involved in more than any others?

Helicopter aerial photography and cinematography, especially offshore, for feature films, commercials, documentaries and sports

What equipment do you use?

Equipment includes everything from Sony EX3 to a helicopter mounted Cineflex.

Do you do any pre-editing or simply send all audio streams back to the client?

100% of all my material is edited overseas by distant clients

How is that audio sent. When in remote locations, do you have to wait or use another method?

All imagery and audio files are sent on a hard drive by courier, supported by backups at my company.

Is wireless part of the equation now or do expect it to be in the future?

Wireless transmission from the helicopter to base is part of the equation at events such as the Olympic Sailing Regattas which we operated at the Beijing and London Olympics.

When you do edit, what editor and platform do you use? Mac or PC?

If I edited, I would use a Mac

How would you suggest new young people take up the same profession?

There are no educational institutions teaching aerial cinematography but if young people want to train for the film industry, attending a reputable film school such as the http://lfs.org.uk is definitely an excellent foundation.

Laurie’s website was launched in February 2016 and contains his contact details.
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