"My work appears on national TV. I have to trust that my gear won’t fail, or the episode is lost."

Sébastien Devaud
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A Tidal Wave of Quality

An interesting phenomenon occurs just before a tidal wave hits. The ocean sucks away from the beach and is drawn out into the sea. This brief receding of the water can deceive unknowing observers, giving the impression that the ocean is withdrawing. In fact, the truth is quite the opposite. The withdrawing waters instead stack up, fueling a massive tidal wave that pushes inland beyond the normal reach of the beach with untold power, leaving mass destruction in its wake. In recent years, the video production community has seen something similar happen. The advent of cell-phone video made anyone with a phone a videographer and anyone with an internet connection a broadcaster. With innumerable cameras in the hands of untrained shooters, the internet quickly became flooded with bad videos of cats and pranks and caught-on-camera catastrophes. It seemed that high-quality productions, created with proper lighting, audio, shot composition, editing and storytelling, would be washed out into the sea, never to return. But now, just as many of us look wide-eyed at the blank beaches of the year 2017, the truth is quite the opposite. The ocean is withdrawing. In fact, in recent years, the internet has been drawn out into the sea. This brief receding of the water is creating high-quality original content that used to sparkle with well-made productions, created with better media and masterful media makers. This does not mean that we should anticipate any sort of drought in the crazy cat video department, but rather that discerning audiences might once again crave something more than home videos of people getting hit in the crotch.

The question is, what kind of content are you creating? In this continuing era of online engagement, opportunity is yours for the taking. Keep making compelling content with excellent production value, and get ready to ride the wave.

Matthew York is Videomaker’s Publisher/Editor.

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Videomaker empowers people to make video in a way that inspires, encourages and equips for success. We do this by building a community of readers, web visitors, viewers, attendees and marketers.

Matthew York  Patrice York
Mike Wilhelm  Katherine Babales  Nicole Lajeunesse  Chris Moulton  Susan Schmierer
Sean Berry  Peter Biederman  Kyle Cassidy  Chris “Acut” Gates  Bill Varney  Mark Levy

director of sales and business development
account executive
telephone (530) 809-4514
Terray York  Lindsay Cox

marketing/fulfillment
managing director
Tiffany Harness

director of finance
accountant
Stephen Awe  Ryan Awe

subscription information
Videomaker Subscription Fulfillment
645 Mangrove Avenue, Chico, CA 95926
telephone: (800) 284-3226
e-mail: customerservice@videomaker.com
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645 Mangrove Avenue, Chico, CA 95926
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“8 Tips for a Stellar First Video” is a clear and concise free download for even the greenest video lover, with tips that you can start applying the moment you pick up a camera.

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• How to make sure that, before you even start, you have everything needed to finish.
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• How video is different than real life... and how to take advantage of that while editing.
• The single most important tip for keeping an audience interested. This remarkably simple editing tip will free you from your old style of thinking so you can see the world the way the video pros do.
• The two easy steps to handling your video camera like a pro and capturing the best possible footage.
• The mistake that can sink a first video and how you can avoid it.

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Matthew York is Videomaker’s Publisher/Editor.

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August 2018

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Videomaker Plus

Videomaker Plus membership gives you more of the tips, tricks and tutorials you need to make outstanding video.

Choose the level that works for you! Sample our online library and get your digital subscription with the Starter, Basic or Creative tiers, or, for about the cost of one type of plug to another.

Advice Wanted

Question: John10. Hi. If I have a 3.5 mm mic (Shure VP83) and an external recorder with xl r – if I use an adaptor, does the signal benefit? I.e., does the unbalanced 3.5 signal become balanced over the XLR cable? Or is it just passively letting me connect from one size connector to another? Thanks

Reply: Charles Bennett: An unbalanced to balanced adapter does not make the whole thing balanced. It is, as you say, just letting you connect one type of plug to another. As to the mic, which is mono, a tip ring and sleeve jack plug does not necessarily mean it is balanced. More likely to make it compatible with most camcorder external mic sockets. See more at videomaker.com/r/908

Camera Controls & Settings: Frame Rates

Learn what a frame rate is, and how different settings affect the look and feel of your video.

videomaker.com/r/910

How to Shoot a Marriage Ceremony

The central moment of the wedding is the ceremony and you don’t want to miss a minute of it. This video shows you camera placement, how to do a multi-camera setup, and some shooting techniques that will allow you to capture every moment perfectly.

videomaker.com/r/910

Facebook Creator App

(500, 500)

The Facebook Creator App aims to make it easier to share content and grow your audience on the platform. The app offers more robust tools for live broadcasting, keeping track of your comments and followers and analyzing video performance. The process for uploading a video on the go is also streamlined with the app. The Facebook Creator App can be used by anyone running a personal Page or profile, but not by organization Pages.

Musical.ly

(500, 500)

Musical.ly bills itself as a “global video community.” The app offers more than video capture and editing tools — Musical.ly also provides an outlet for your completed creations. The app includes thousands of free sound clips to use with your videos, in addition to emoji stickers, face filters and other fun effects. And when you’re done, you can share your video with the rest of the community and find other creations to watch on the platform.

Adobe Rush

(500, 500)

Adobe Rush aims to streamline export and publishing with presets and direct uploading to sites like YouTube, Facebook and more.

Quick Focus

With more people making and sharing media than ever before, video has become one of our primary modes of communication. Video is now deeply embedded into our social experience. It’s no wonder, then, that there are plenty of apps out there that seek to make creating and sharing video easier.

This month, we focus on four apps that aim to help us use video to build communities and connections.

YouTuber Magazine Helps You Make and Share Better Online Video

YouTuber aims to help YouTube creators build a larger fan base and generate more revenue. Featuring insider tips from YouTube superstars along with tips and techniques for producing and marketing successful videos, the latest YouTuber interviews and tutorials are available at www.youtubermagazine.com. Check it out!

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NEW GEAR

Tools to Help You See More

Rokinon Adds New Compact 24mm F2.8mm Lens for Sony E Mount Cameras

Rokinon’s announced the newest addition to its popular line of full frame autofocus lenses for Sony E mount cameras: the Rokinon AF 24mm F2.8 Compact Lens.

Just like the rest of the lenses in the line, the 24mm F2.8 is designed for Sony full frame mirrorless cameras and focuses on three key points according to Rokinon: optical quality, portability and silent autofocus.

The 24mm F2.8 AF features a design of seven glass elements in seven groupings with seven aperture blades. “Its construction has been optimally arranged for portability and to deliver high resolution from the center to the corners of the image,” Rokinon claims.

The lens sports three Aspherical and two High Refractive Index elements along with Rokinon’s Ultra Multi-Coating to minimize chromatic aberrations and light dispersion.

It’s possible some may find the number of aperture blades to be limiting when it comes to bokeh. They may not get bokeh that’s as smooth as desired with seven aperture blades, but the lens f/2.8 aperture and wide-angle field of view probably isn’t attracting bokeh enthusiasts.

With the Sony Alpha a6000/a5000 series or other Sony APS-C cameras, the lens’ 24 mm focal length is equivalent to about 36mm. It weighs about 3.3 ounces and has a minimum focusing distance of 9.5 inches. The Rokinon AF 24mm F2.8 Compact Lens for Sony E mount goes for $399. It includes a reversible lens hood, lens caps and a custom fitted case.

Canon Updates L-Series Lenses with Two New 70-200mm Zooms

Canon recently introduced not one, but two new telephoto zoom lenses: the EF 70-200mm f/4L IS II USM and the EF 70-200mm f/2.8L IS III USM.

Canon claims that both advanced amateurs and professionals in need of a lens with a long zoom range and a relatively compact design will benefit from these new 70-200mm lenses. Compared to its predecessor, the 70-200mm f/4L IS II USM upgrades the Optical Image Stabilization up two stops, increasing the previous three stops up to five shutter speed stops of correction over the same f/4 lens. “The improved IS allows photographers to more easily capture crisp, in-focus images without the use of a tripod,” says Canon.

There are also three IS modes suited to a variety of shooting situations, like panning and capturing still or fast moving subjects. The IS operational noise has been reduced as well.

As for the EF 70-200mm f/2.8L IS III USM, Canon claims it’s an ideal lens for the Canon 1D and 5D camera lines. This lens’ Optical Image Stabilizer has up to 3.5 shutter speed stops of correction, a minimum focusing distance of 1.2 meters, and a circular eight blade aperture. The 70-200mm f/2.8L IS III USM also uses Air Sphere Coating tech that Canon says helps “reduce flare and ghosting, and suppresses the reflection of light.”

The EF 70-200mm f/4L IS II USM began shipping in late June for $1,995. The EF 70-200mm f/2.8L IS III USM is expected to start shipping in August for $2,099.

Parrot Challenges the Mavic Air with Cheaper Folding 4K Drone

Everyone knows that DJI is dominating the drone industry these days, but that’s not stopping Parrot from challenging the Mavic Air with its ANAFI drone.

The ANAFI will give drone users an alternative to the Mavic Air by offering 4K video and photo capture and a foldable design for $699—a hundred bucks less than the Air.

While the ANAFI doesn’t come toe-to-toe with many of the Air’s specs, it does seem to put up a good fight. It uses a 21-megapixel camera that supports 4K HDR video at 100 megabits per second (Mbps) and includes 2.8x lossless zoom and 3-axis image stabilization.

The Air sports a 1/2.3-inch 12 MP CMOS sensor and records 4K at 30 fps with recording at 100 Mbps. In all, this is a big leap for Parrot, considering their Bebop drone only offered 1080p video recording and had no gimbal design.

The ANAFI’s flight time clocks in at 25 minutes within a 2.5 mile range, which actually beats the Air’s 21 minute battery life. The battery life on the ANAFI can also be extended with a USB-C battery bank. Parrot also claims the ANAFI will conduct “super quiet flights.”

Additionally, the ANAFI has, according to Parrot, an ultra-portable and compact design that’s lightweight and foldable in 3 seconds. It weighs just 320 grams; the Air weighs 430 grams. The ANAFI can also be controlled through a new smartphone app with AI-based visual tracking, drone selfies, automatic landscape videos, slow motion and hyperlapse. There is, however, an included physical controller as well.

You can expect the ANAFI to be released on July 1st for $699. While it does lack some of the specs that the Mavic Air offers, it could prove to be a good alternative for those looking to save a hundred bucks.

This Drone Can Capture 4K Video While 130 Feet Underwater

There are lots of new drones flying in the skies these days, but not many are swimming around in ocean waters. Navatics recently revealed an upcoming underwater drone capable of shooting 4K 30 fps video.

The drone is being dubbed the Navatics MITO, and Navatics describes it as “a remotely operated underwater vehicle equipped with advanced active stabilization technology that provides new levels of underwater video.”

Navatics’ MITO offers 4K video at 30 fps at up to 130 ft underwater. Also, through its accompanying mobile app — available for iOS and Android — it can stream video up to 500 meters away at 1080p resolution. It also includes an active stabilization algorithm that allows the MITO to hover and “keep its orientation even in the complex underwater currents for up to four hours,” according to Navatics.

It’s reportedly attached to a floating tether to allow it to tilt up and down to 45-degree angles, while “maintaining its depth, heading and orientation at speeds of up to two meters per second,” according to Navatics.

There’s also two 1000 lumen LED lights giving “excellent vision and illumination underwater, providing better colors on video and images,” says Navatics.

The Navatics MITO is available for pre-order on Kickstarter now with a super early bird price of $1,199, which includes the drone with a 4K camera, one battery, a remote controller that attaches to smartphones and a 50-meter tether. It will start shipping this September.
Panasonic HC-VX1

Small and Affordable 4K

by Chris Monlux

The Panasonic HC-VX1 is an affordable camera with a good looking image, better than average low light performance and UHD 4K recording — all for $800. With loads of light, the image quality of the Panasonic HC-VX1 is impressive, especially for a small sensor. Add in its 25mm to 600mm zoom and three optical image stabilization systems, and the HC-VX1 shines above the rest. However, it does come with a few features that have us wondering if the Panasonic marketing team was short on options to high-light. Active Contrast and 4K cropping are just a couple of the biggest offenders, but we’ll have more on that later. Overall, with a top resolution of UHD 4K at 30 frames per second (fps) and the ability to capture up to 26-megapixel stills, Panasonic cram a lot of value into the HC-VX1.

Specs in Context

The 1/2.5-inch back-illuminated MOS sensor offers impressive image capture even at 12 decibels (dB) of gain. Although at that level there is significant noise, it still has good color reproduction. This means if you find yourself in a less than ideal light-ing situation, it’s likely you will still be able to capture something worth watching. Many small sensor cam-eras suffer significantly when at that amount of gain, so we expected to have the picture degrade when mov-ing above 6dB of gain. Even when below 0 dB of gain the HC-VX1 has danc-ing noise in the blacks that increases as you increase the gain, but the color and the image are still detailed. The camera offers up to a 48 times zoom, however after 24 times, the zoom is digital. A digital zoom is noth-ing more than a magnification with resolution loss, but with an optical zoom as large as 25mm to 600mm, the need to zoom past that will be rare. Panasonic offers a few picture in picture (PiP) options on this camera, some of which we have seen before. We first came across Panasonic’s PiP features in the HC-VX91K. In 2016. Our conclusion was that it was quite gimmicky and overall limiting. Who needs a burned in selfie view of themselves as they film? However, with the wireless multi-camera smartphone function on the HC-VX1, you can connect up to three smart-phones to give a PiP in each corner. Because the other cameras are not connected to the main camera, we could see some unique ways to use this feature. Say you were recording a chef on a cooking show. You could have a wide shot of the host and a closeup of the food being prepared in the same frame. It’s not going to be an award winning feature, but it’s a big improvement over what was offered in the HC-VX91K. To use PiP, the Panasonic Image App needs to be installed on the smartphone. Using an Apple iPhone 7 Plus, we connected to the camera with relative ease. The feature requires the phone to connect to the camera’s Wi-Fi network. We did find that con-nec tion was more difficult to main-tain if it was competing with a Wi-Fi network with a stronger signal. But after forgetting that stronger network on our phone, the camera’s Wi-Fi worked well. Each time you set up, it requires the phone to connect again. That means if you are going to turn the camera or phone off, each time you turn them on again you will need to reconnect them.

The HC-VX1 has three O.I.S. systems. Panasonic describes the first, 5-Axis Hybrid O.I.S., as a five-axis correctio-n to thoroughly suppress blurring doing so. The second, Adaptive O.I.S., optimizes the O.I.S. effectiveness by adjusting the O.I.S. mechanical control to various shooting positions, conditions and user characteristics. The last O.I.S. system is Ball O.I.S., which Panasonic says reduces wear on the drive section and greatly improves correction for small-amplitude hand-shake. Because the camera is so small, good image stabilization is key. We liked how they all worked — a big plus since, when fully optically zoomed to 600mm, good stabilization is a necessity.

Image Quality

The optical zoom on this camera will be your friend if you desire a shallow depth of field (DOF). Because of space compression when shooting telephoto, video shot when zoomed in will have more visible background blur. The image is very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach. Because it looks very nice when wide, but like other small sensor cameras, shallow depth of field is out of reach.

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TECH SPECS

Sensor: 1/2.5" MOS
Sensor Resolution: 8.57 MP
Focal Length: 4.12 - 98.99mm
35mm Equivalent Focal Length: 25-600 at 16:9 4K/Full HD 24p
Maximum Aperture: f/1.8 - f/4
Zoom
Optical: 24x
Digital: 70x
Filter Size: 62 mm
Recording Media: SD/SDHC/SDXC
Video Format:
- • 1920 x 1080 at 60 fps
- • 1920 x 1080 at 24 fps
- • 1280 x 720p at 30 fps
- • 1280 x 720p at 24 fps
Audio Format: AAC
Display Type: LCD
Touchscreen: Yes
Screen Size: 3"
Screen Resolution: 460,800 Dots
Image Stabilization: Optical & Digital
Built-In Mic: Yes
Built-In Speaker: Yes
Wi-Fi: Yes, 802.11b/g/n
Accessory Shoe: 1 x Cold Tripod Mount: 1/4" - 20
Outputs:
- • 1 x Micro-HDMI (Type D)
- • 1 x USB 2.0
Microphone Input: Yes
Headphone Jack: Yes
Battery: Rechargeable Battery Pack, 1940mAh
Dimensions (W x H x D): 2.7 x 3.0 x 5.6" / 68.0 x 77.0 x 142.0 mm
Weight: 15.10 oz / 428 g

Panasonic states that the battery will last an hour per charge. If you re- quire more than one battery for your shoot, you will be required to use the camera to charge it. This means if you find yourself without an extra charged battery, you’ll be out of luck. You are able to run the camera off a wall out- let, however.

The Different Variations

Panasonic offers two other cameras with the same sensor. The HC-VX1 includes an EVF, has the twin camera and costs $1,000. Otherwise, it’s the same camera. The twin camera is not worth paying for, but the EVF would be handy in some shooting situations where the monitor is difficult to see. On the other side of the HC-VX1 is the HC- VX981, which shoots up to HD for $600. The resolution is the only difference, so if you don’t need 4K, you can save $200. For all three cameras, there is no separate battery charger included, so the camera’s battery must charged using a USB cable with the camera as the charger.

Final Thoughts and Recommendation

There are two things that surprised us with this camera: its image qual- ity when given an abundance of light and its ability to have a decent image all the way up to 12 dB of gain. It’s packed full of either poorly named or poorly executed features, but, for the money, you get loads of options and a versatile camera.

Chris Monlux has owned more than two dozen pieces of equipment in his life. He is also Video- maker’s Multimedia Editor. You can comment on this article by going on- line: www.videomaker.com/articles/19455
With the addition of Apple ProRes RAW, the Atomos Sumo19 brings flexibility to a slew of workflows in need of an affordable option. Atomos dominates the monitor market and is known for giving loads of features with a lower than market price. Their Sumo19 is designed to follow you from the set through the edit.

Let’s start off by saying outside of the 19-inch monitor, the Sumo 19 has the same features as the Shogun Inferno. If the recording feature isn’t what you need, then for $550 less, the Sumo19 is the monitor minus the recorder. With either option you get a 1920 x 1080 IPS touchscreen display that can give you up to 1,200 nit brightness. In Atom HDR mode, the Sumo19 can display 10 stops of dynamic range with internal LUTs ready for just about every camera on the market.

ProRes RAW
Apple released ProRes RAW at NAB, announcing it with two partners, DJI and Atomos. Atomos included the ability to capture ProRes RAW in the Sumo 19 and the Shogun Inferno. ProRes RAW is more efficient than the ProRes that came before it, while still allowing for the RAW sensor data to be captured. That means that ProRes 4:4:4 has a larger data rate than ProRes RAW IQ, even though there is more information in the RAW files. Additionally, the ProRes RAW data rate is dependent on the image content, giving it a variable data rate range. The biggest drawback for ProRes RAW at this point is that to use it, you need to use Final Cut Pro X. We hope that support will grow over time, but currently there is no news on if or when that might happen.

AtomOS 9.1
Just as we were wrapping up our review, Atomos released a brand new firmware update for the Sumo: Atomos 9.1. This opened up Quad ISO recording and on-screen switchable output. If you have a sync generator that can provide full Genlock sync, you can connect four different inputs and capture their individual input or record the program out with a separate recorder. Atomos plans to add internal recording of the program out in a future update.

As a Capture Device
Because of its size, using the Sumo as a capture device will fit some workflows and not others. Regardless, it has loads of inputs for just about every workflow. It will convert SDI to HDMI, if you want to tie in non-SDI monitors. Offering up to 12G-SDI and HDMI 2.0, the Sumo makes it easy to switch between inputs. Because it has a touch screen and the menu operation is intuitive, a quick tap of the input location and it can easily toggle between inputs. Beware though, if you desire to capture ProRes RAW, it will require SDI input.

Display Type: 19” / 48 cm IPS capacitive touchscreen
Resolution: 1920 x 1080
Bit Depth: 10-bit (8-bit plus FRC)
Color Gamut: REC. 709
Brightness: 1200 cd/m²
LUT Support: 3D LUT (Cube file format)

Inputs:
• 1 x HDMI Type A, v2.0
• 3 x BNC, HD/3G-SDI
• 1 x BNC, HD/3G/6G/12G-SDI
• 2 x XLR, balanced analog audio with 48 V phantom power

Output:
• 1 x HDMI Type A, v2.0
• 1 x BNC, HD/3G/6G/12G-SDI
• 1 x 3.5 mm stereo headphone

Input/Output: 8/10 bit 4:2:2 (dependent on video source)

Encoding Formats:
• Apple ProRes: Raw, Raw, Raw HQ
• Apple ProRes: HQ, HQ, HQ, SQ, LB
• AVID DNxHR: HQX, HQ, SQ, LB
• Cinema-DNG Raw
• Raw to ProRes/DNx

Dynamic Range: > 90 dB
Supported Battery Types: V-Mount, Gold Mount (requires optional mounting plate)

Mount Types:
• 1/4”-20: 4 top, 4 bottom, 2 side 3/8”-16: 2 top, 2 bottom, 1 side

Dimensions:
• 19.8 x 12.2 x 2.5” / 50.4 x 31 x 6.3 cm

Weight:
• 12.3 lb / 5.6 kg (without stand)

If you want to capture in another format, just like with the input select, it’s an easy tap on the menu. You can also capture 10-bit 4:2:2 ProRes, Avid DNxHR HQX or Cinema DNG. To capture HDR, you need an SSD that fits in to the Atomos Master Caddy. Depending on the brand and capacity you choose, they range from $100 up to $250. A great use of the Sumo is when your camera can only capture 8-bit video internally, but has 10-bit out, like with the Panasonic Lumix GH4.

As a Field Monitor
The brightness of this monitor can not be understated while being used as a field monitor. The brightness allows for HDR workflows and when battling the view this monitor can outshine a 1,000 nit bright 19-inch monitor from Bon and 17-inch HDR monitor from SmallHD.

The Bon BSM-183H costs $3,000. It is a 183 nit 10-bit 19-inch monitor with a 10-bit processor. The SmallHD 1703 HDR costs $4,000. The 17-inch 2020 x 1080 Display has SDI and HDMI inputs, but is 200 nit dimmer than the Sumo. SmallHD calls it the brightest most durable 17-inch monitor in the world. Even if that’s true, you’ll pay $1,500 more than the Sumo for it.

Final Thoughts
The Sumo19 is a great option if you need a 1,000-plus nit bright 19-inch monitor and recorder. The size won’t impede any workflow and not every workflow will benefit from having an external recorder. We liked how intuitive the information and menu are, but we were disappointed that SDI is required for ProRes RAW capture. If you need an HDR monitor that works both on set and in post-production, you should consider the Atomos Sumo19.
Review

Zoom F1-SP & F1-LP

by Chris Monlux

Modular Simplicity

To go along with their existing ecosystem of modular mics, Zoom has made yet another desirable audio recorder with the Zoom F1 Field Recorder. The Zoom F1 is a two channel field recorder, capturing up to 24-bit, 96 kHz in either WAV or MP3. It includes an on-board limiter, is powered by two AAA batteries and records onto a MicroSD card. The F1 is available in two configurations, the F1-SP, mounted with the SGH-4 shotgun microphone module, and the F1-LP with the LMF-2 lavalier. The big trick to the F1 is that it’s compatible with all of the interchangeable mic modules for the Zoom H5 and H6 recorders.

The only difference between the SP and LP models is the included mic. The SP option comes equipped with the modular SGH-4 shotgun mic and is a bit more expensive, at $250. Along with the shotgun mic module, the SP includes the SMF-1 shock mount that attaches to a camera’s hot or cold shoe. As just $200, the lavalier that comes with the F1-LP connects via the one eighth inch stereo mic line combo input, rather than the 10-pin modular mic connection. The LMF-2 is an omnidirectional microphone.

In Use

Our first application was using the F1-SP with the Panasonic Lumix GH4. To start, we tested the F1-SP as an external mic. We captured in-camera using the included eight-inch coiled cable from the headphone out to the mic input on the camera. To get the best gain, we set our gain in the F1-SP while monitoring through its headphone out. In a perfect world, you would be able to go out from the headphone jack at 100 percent volume. In our case, the GH4 has at best a -12 dB minimum input level, so at 100 percent headphone volume, we experienced clipping in-camera. This caused us to lower the headphone volume out until we had an input amount that didn’t clip. Not the best situation, but easy to work around.

Once we set our gain and had a healthy signal, we thought we were ready to go. However, once we pressed the record button on the F1-SP, it gave us an invalid SD card error message. This was confusing since we had just successfully formatted the card in the recorder and even used their internal test to make sure it was okay. Luckily, we have many more microSD cards, though most of our cards are too fast and therefore were not compatible with the Zoom. We have experienced the same issue with the GH-4 we use occasionally. They require slower, older media: a microSD or microSDHC card class 4 or higher, and up to 32 GB. We have experienced the same issue when handling just the camera during normal shooting.

We then moved onto using the lav on the F1-LP. Along with the attachment location, the lav gain control is different than the dial on the mic modules. Mic input is controlled in the menu and we found it to be oddly executed. There are 10 steps of gain, but they are labeled auto, low, mid and hi. Each setting had a plus and minus setting and hi had two plus options. Not only is it difficult to describe, it’s also not the most intuitive input setting menu to use. Why not just give it a 1-10 rating and go from there? Especially since the rest of the mics work that way.

Module Options

Depending on the kit you get, either the lav or the shotgun will be included. However, there are a slew of mic capsules that work with the F1. Adding the EXH-6, a dual XLR/TRS combo input capsule, allows you to add two XLR or 1/4 inch inputs instead of a mic capsule. We like this because it gives you standard inputs and gain that you can control.

Additional mic modules are available

Becoming a professional wedding videographer

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control knobs. Additionally, the EXH-6 has a 20dB pad, giving it the ability to capture high-output sound sources. Phantom power is not supplied to these inputs, so condenser mics that require it will not be an option. However, at just $70, it’s a great way to add versatility to the F1.

The EXH-6, like the MSH-6, is a good choice if you need to contro the controls at the end of a boom and the mic at the other end. The big question is if the extension is worth the extra $120. That’s debatable, depending on your needs.

Final Thoughts

Both of the F1 have offer a great value, and the modularity design allows for additional flexibility. Using the F1 as a mic only with a camera is a bit cumbersome, but it’s workable. We love the module capabilities. Choose the right mics and you’ll have a recorder with loads of functionality.

4.2 oz / 120.0 g (without batteries)

The Aja Io 4K Plus is a small yet robust I/O device that allows for 4K and HDR capture and playback via just one Thunderbolt 3 cable. The list of applications to the 4K Plus can be used for is just about endless. It offers both 12G-SDI and HDMI 2.0 inputs and outputs, so 4K ingest is possible. We love the Io 4K Plus as a simple solution for 4K capture and HDR workflows.

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Chris Monlux enjoys mid-side pair and X/Y recording configurations are fun to play with. He is also Videomaker’s Multimedia Editor.

You can comment on this article by going online: www.videomaker.com/article/15487
A J A Io 4 K P lus

TECH SPECS

Video Formats:
• (4K) 4096 x 2160P 23.98, 24, 25, 29.7, 30, 47.95, 48, 50, 59.94, 60
• (UltraHD) 3840 x 2160P 23.98, 24, 25, 29.7, 30, 47.95, 48, 50, 59.94, 60
• (2K) 2048 x 1080P 23.98, 24, 25, 29.7, 30, 47.95, 48, 50, 59.94, 60
• (HD) 1080p 23.98, 24, 25, 29.7, 30, 47.95, 48, 50, 59.94, 60

Video Inputs:
• 12G-SDI, SMPTE-2082, 12-bit, 10-bit and 8-bit
• 6G-SDI, SMPTE-2081, 10-bit and 8-bit
• 3G-SDI, SMPTE-259/292/292M/242/425, 12-bit, 10-bit and 8-bit
• 1.5G-SDI, SMPTE-292M, Single Link 4:2:2 (1 BXC), 10-bit and 8-bit
• HDMI v2.0
• 30/36/38/39/40, RGB or YUV, 6 Gbps per color component

Audio Inputs/Outputs:
• 4K, UltraHD, 2k, HD and SD with HFR support up to 60p (4:2:2), 10-bit and 8-bit

Video Outputs:
• 12G-SDI, SMPTE-2082, 12-bit, 10-bit and 8-bit
• 6G-SDI, SMPTE-2081, 10-bit and 8-bit
• 3G-SDI, SMPTE-259/292/292M/242/424, 12-bit, 10-bit and 8-bit
• 4K/UltraHD 4:4:4 (4x 4k)
• 1.5G-SDI, SMPTE-372M, Dual Link HD 4:4:4 (2x 2k), 12-bit, 10-bit and 8-bit
• 1.5G-SDI, SMPTE-292M, Single Link 4:2:2 (1 BXC), 10-bit and 8-bit
• HDMI v2.0
• 30/36/38/39/40, RGB or YUV, 6 Gbps per color component

Audio Outputs/Outputs Digital:
• 16-Channel, 24 and 16-bit S D I emb edded audio, 48 kHz sample rate, synchronous
• 8-Channel, 24 and 16-bit HD 60 sample rate, 48 kHz sample rate, balanced

Audio Outputs/Inputs Analog:
• 8-Channel, 24 and 16-bit D A A NALOG audio, 48 kHz sample rate, balanced

To know more about the features of AJA Io 4K Plus, please visit their official website or contact their customer support.

Once it was up and running, the setup for Premiere Pro was seamless. The fans emitted warmth, but it was not doing small work. We first experienced a noticeable change in performance when the fans started spinning. However, once we updated the output, everything worked well. This means if you have a unique routing setup, you are able to configure it to suit your needs. The HDR workflow is pretty simple, if you have the right equipment. HDR has to be made with the viewing monitor in mind. If the monitor has a wider dynamic range, then the output will be intended for the shot will not look the same way and may even look bad just because of the monitor that’s presenting the image. Looking at some HDR footage, we were able to grade higher than 100 IRE. The range for SDR video. HDR can be cumbersome to work with, but the results are amazing if you have the knowledge and capability.

The Io 4K Plus has a great form factor for sitting on your desk, but it’s not doing small work. We first experienced a noticeable change in performance when the fans started spinning. However, once we updated the output, everything worked well. This means if you have a unique routing setup, you are able to configure it to suit your needs. The HDR workflow is pretty simple, if you have the right equipment. HDR has to be made with the viewing monitor in mind. If the monitor has a wider dynamic range, then the output will be intended for the shot will not look the same way and may even look bad just because of the monitor that’s presenting the image. Looking at some HDR footage, we were able to grade higher than 100 IRE. The range for SDR video. HDR can be cumbersome to work with, but the results are amazing if you have the knowledge and capability.

Final Thoughts

The Io 4K Plus is a good fit for use and will work well for many different workflows. Custom configuration through the Control Panel is straightforward and flexible. We experienced some performance change, but that’s to be expected. There is a lot happening behind the scenes. Overall, the AJA Io 4K Plus is a good option if you need 4K capture over Thunderbolt 3.
Frame.io

Frame.io is a media review, storage and collaboration platform that will import just about every video format out there. Frame.io transcodes media into various resolutions allowing for quick scrub, playback and commenting. It also maintains the original media which you can download, allowing Frame.io to also function as cloud storage.

Our first review of Frame.io was in March of 2016. We liked the product, and at the time, there were very few competitors in the video review and collaboration space. We did have a few gripes, however. We didn’t like that you couldn’t see comments from each camera when looking at versions side by side. We also wanted better integration with other programs like Premiere and Slack — more than just the Final Cut Pro X integrations offered at the time.

They heard us, because both Premiere and Slack integration are now available and quite nice to use. Also new this time around is more robust support for formats and codecs, supporting preview for 95 percent of the videos we threw at it. Sadly however, when viewing versions side by side, we still can’t see comments on each version.

Now a few years after our initial review, Frame.io is still a valuable tool that has evolved to offer a unique feature set. If you want a deeper description of how the basic information is transcoded, read our past review. In this review, we want to cover what has changed from the review we did in 2016.

Digging in

We started out by uploading some videos in various formats to Frame.io. We put up one file from each camera, we have reviewed over the last 3 years. With a total of 36 different video files, we found that all but RAW files showed up and were able to be played back. ProRes RAW, Cinema DNG and Redcode Raw (RED) uploaded successfully, but would not allow for preview within Frame.io. Even though we couldn’t review the files, they were still available to download and use. 10-bit 4:2:2 video from the Panasonic GH5, GH5s and the EV A1 all played back in the player without any issues, even at the largest data rate of 400 Megabits per second (Mbps). Additionally, HVEC H.265 media from the Samsung NX1 played back properly. Even when reviewing an equirectangular video from the Ricoh Theta V 360 camera, Frame.io played it back. However, the playback is flat, not spherical.

At NAB 2018, Frame.io exhibited a slew of new features that they plan on releasing over the next year. The most recent update includes expanded features for Image Review and Collaboration. The new features support over 100 RAW picture formats and alpha channel trimming, so transparency can also be previewed. We threw in a bunch of RAW photos from a dozen different cameras and everything worked.

Moving on to other file formats, JPEG and PNG worked great as well. However, we found that PDFs don’t translate well to be commented — resolution and color were both inaccurate. When we found that our PDF did not preview properly on Frame.io, we converted it to a JPEG and PNG. Once converted, both file types previewed properly and were higher resolution than the PDF preview. With that said, everything else we threw at Frame.io worked perfectly.

Integration

In our first review of Frame.io, we critiqued the lack of integration with other programs. At that time, Final Cut Pro X was the only integrated option. Forwarding to today, and Frame is integrated with Adobe Premiere Pro CC and After Effects CC from within the program. The integration allows for easier access to checklist, timecode, comments and collaborative work through the program. All source media can be stored in Frame.io for cloud storage. Then, other collaborators on your Premiere or After Effects projects can work in the same project with you, using the same source materials.

Going deeper, Frame.io also offers integration with Slack. VideoMaker uses Slack for internal communication, so this integration made it easy to track comments and uploads. Frame.io will notify you when a comment is made, sending you the comment, a screenshot and the timecode. The only thing that doesn’t come through Slack is the visual markup added to a review. Final Cut X integration is consistent with prior releases, but Frame.io now offers a MacOS app, so you can have a watch folder that automatically uploads.

Final Thoughts and Recommendations

Frame.io has a feature in the marketplace that is their focus on users who need flexible format and codec support, centering around the ability to throw in just about any type of video file as well as other associated media types. With a starter plan costing $15 per month — or $156 billed annually — but offering only up to 3 projects, 1GB of storage and 10 collaborators, few projects would be able to function under such a small offering. The plan that would fit a video producer in need and with the ability to pay for collaborative approval software is the team plan at $50. With unlimited projects, up to 100 GB of storage, and up to 50 collaborators and 5 team members (team members are paid seats with higher levels of permission than ‘collaborators’).

Another option in collaborative software is Wipster. Wipster’s focus is a bit different. Also built around real-time review and communication for video, Wipster has a feature called aggregated health score to show at a quick glance if a video campaign is successful, through connecting the analytics from various social and publishing channels. Wipster also has one-click publishing to all social media outlets. Otherwise the review and communication tools are very similar to Frame.io. Starting at a little over $8 dollars per month, Wipster offers 15GB of storage with unlimited team members, reviewers and projects. 50GB and 100GB storage options are available for $45 and $75 per month, respectively.

Next up is MediaSilo, whose focus is integration with other common productivity apps. While the other offerings also provide some integration, MediaSilo offers more. With 11 different program integrations, you can use MediaSilo with Asana, Basecamp, Box, Google Drive, Dropbox, PaperTrail, Amazon S3, Google Sheets, Slack, Twilio and Zapier. MediaSilo’s prices start at $250 a month. Unfortunately, they don’t mention how much storage that will get you, but it gives you the full feature set they offer.

Last is Vimeo, whose Pro, Business, and Premium plans offer video collaboration. Vimeo Plus users can add it for an additional $7/month. The most affordable per GB option, Vimeo offers a few unique features in addition to facilitating better communication. Vimeo will also allow you to simultaneously stream live to all social media outlets that support it. More than just allowing you to stream to each platform, you stream to Vimeo and it distributes it to the other outlets. That significantly lowers the bandwidth needed to reach each platform at once. Vimeo also aggregates analytics from social media’s and Google. Starting at $20 a month for Vimeo Pro, you get 20GB per week and 1TB per year and can support up to 5 users. The live streaming offering is only available in the Vimeo Premium tier for $75 dollars a month. However, for 75 dollars, you get 77GB of storage and unlimited live streaming.

Chris Monlux likes to communicate... a little too much. He is also Videomaker's Media Editor. Read more about him and this month's content. Please leave a comment on this article by going on-line: www.videomaker.com/article/19488
The Right Recorder Can Help Get You Through Your Production

Modern cameras offer a lot more in recording options and controls than they did in the past, but they may not address all of our production needs. It’s common to find that the camera you’ve chosen for a shoot doesn’t offer all the features that you need to get through your workflow with ease. This is where portable recorders can help.

BY ODIN LINDBLOM

Just like cameras, there is no one recorder that’s perfect for every production; however, you can enhance your camera’s capabilities with a recorder that fills in the gaps.

Audio Matters

On some projects, you can mask problems with your picture in post-production with alterations of color and contrast, making them look like stylistic choices; however, you usually can’t do that with audio. You might be able to ADR (additional audio recording) all the dialog of your short film in post, but it’s not likely that the bride and groom are going to want to re-record their wedding vows after you’ve done the shoot for them. In some cases, there simply is no alternative to professional quality production sound.

Most cameras don’t offer all the features needed to ensure that you can get good quality sound for your production. This is where an external recorder can give you the ability to capture great sound, either with better input and output jacks, a lower noise floor, higher audio sample rates and bit depth or by offering more control to adapt to the recording environment.

1/8-inch vs. XLR Jacks

Just the fact that an audio signal passes through an XLR jack doesn’t make it better quality; however, using XLR cables and jacks can help eliminate some common problems with audio signal flow in production.
A/V Recorders Buyer’s Guide

Reliability is very important for signal flow. XLR connections lock in place, most 1/8-inch connections do not and can easily come out. Most equipment using XLR jacks use grounded connections to help eliminate RF noise in the signal; most 1/8-inch jacks don’t allow for grounded connections. During a production, the size of XLR jacks makes them more durable and less likely to break in contrast to smaller 1/8-inch connections. As an added bonus, XLR inputs usually can provide phantom power needed by many professional microphones.

Noise Floor and Audio Formats
All audio recorders have a noise floor. When you start a recording with no microphone attached or enabled, you will hear noise in the recording which is what you will hear in the recording is what you will hear in the recording. Generally, the better a recording device is designed and built, the lower the noise floor will be.


tascam DR-10

Atomos Ninja V

Roland R-07

tascam DR-40

Even when you’re in 4K, recording in 4:2:0 color and then pulling a chroma key from that screen green screen footage can be very difficult. The Blackmagic Design Video Assist 4K ($895) can record 4:2:2 color in 1080i from its HDMI or SDI inputs. This makes it compatible with most cameras on the market. Also, it has a 1920 x 1080 7-inch screen and supports recording in ProRes and DNx codecs.

The LCD screen on your camera is too dark outside. Most cameras have screens that are challenging to view in full daylight outdoors. They often have a brightness of around 300 to 500 candela per square metre (cd/m²). The Atomos Ninja V ($699) has a 1000 cd/m², 5-inch screen that is easy to see outdoors. It can record 4K at 60 frames per second in a variety of log formats, and it supports HDR.


tascam DR-10

Roland R-07

tascam DR-40

Atmos Ninja V

Blackmagic Design Video Assist 4K

Zoom F1

Tascam DR-10

Tascam DR-40

Zoom H4n Pro

In addition to the Tascam DR-40 ($399), you can get the Tascam DR-10 ($200) or ATOMOS Ninja V ($180) and then pull a chroma key from that screen. Both of these recorders allow you to record two mics via XLR; additionally, the recorders have two onboard mics that are great for recording ambient sound to two additional separate tracks. This allows you to mix the four tracks together in post to get just the right amount of background sound.

You need better quality recordings for your green screen shots. Even when you’re in 4K, recording in 4:2:0 color and then pulling a chroma key from that screen green screen footage can be very difficult. The Blackmagic Design Video Assist 4K ($895) can record 4:2:2 color in 1080i from its HDMI or SDI inputs. This makes it compatible with most cameras on the market. Also, it has a 1920 x 1080 7-inch screen and supports recording in ProRes and DNx codecs.

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Many cameras and recorders don’t list audio noise floor information in their specs, but this is certainly something you can learn by doing test recordings with the equipment before you shoot. If you want great audio, you’re going to need to record in WAV or another uncompressed format. Unlike recording compressed images, recording compressed audio severely limits what you can do in post. Of course, if your only delivery is a live web stream, then recording compressed audio may be fine, but you should test your workflow just to be sure.

Changing your recording format from 16-bit/48kHz to 24bit/96kHz WAV may not give you a noticeable difference in sound quality. However, what it will do is give your audio signal more information, making it easier to make alterations like noise reduction and equalization, often providing noticeably higher-quality sound at the end of the process.

Ergonomics and Isolation
Beyond boom poles, we don’t hear much about the ergonomics of working with audio equipment on a shoot, and it can greatly affect the sound you’re recording. You’ll find that the easier the gear is to operate, the more consistent your results will be. Having gain controls that are physical, rather than menu-based, and can be quickly and easily adjusted will help you maintain proper audio levels. Using an audio recorder that is separate from your camera rig will eliminate the risk of vibrating the camera while adjusting gain. Likewise, if your audio gear is separate from your camera rig, you’re less likely to pick up camera noise in your audio recordings.

Sound Recordists and Audio Engineers
Until A-gess a bit cheaper and better, there is no substitute for a crew member dedicated solely to recording great sound. A camera recording without an operator won’t always get you the greatest of pictures, the same is true for audio. That said, on many productions it just isn’t possible to have a separate sound crew. There are, however, some workaround solutions that can get you really good results.

Video Recorders: Color and Formats
Many cameras only record in 4:2:0 chroma subsampling, which can lead to some images having color that looks a little off and provides less flexibility in post. 4:2:2 subsampling has four times as much color information as 4:2:0 color and gives you color that looks almost exactly like full-bandwidth color (4:4:4). Many recorders support 4:2:0 color via HDMI and 4:4:4 color via SDI.

At times, because of a clients needs or to streamline your own post production workflow, you may need to record in a specific format like ProRes 422 or DNxHR. If you work more easily with editing software like Final Cut Pro or Media Composer, recorders often support these formats, but you should test your workflow just to be sure.

Screen Size, Resolution and Brightness
Onboard camera monitors are typically small, low res and not very bright. There are many monitor/recorders with 5-inch to 7-inch screens in HD resolutions (720, 1080); some are even bright enough to see in sunlight. Onboard camera monitors are typical for lower eo budget for wireless kits. This is where the Zoom F1 ($399) can help. Both of these recorders provide noticeably higher quality reduction and equalization, often providing noticeably higher-quality sound at the end of the process.

Wireless lavs won’t work, but you need to mic the talent because the airwaves are becoming more and more crowded, finding good frequencies for wireless microphones can be challenging. It can be also just as difficult to find don’t have the budget for wireless kits. This is where the Atomos Ninja V ($699) is best. This is great. But if the talent is in a noisy location, it’s going to sound odd if you can’t hear any background noise at all. With a recorder like the Tascam DR-40 ($180) or the Zoom H4n Pro ($200) you can record two mics via XLR; additionally, the recorders have two onboard mics that are great for recording ambient sound to two additional separate tracks. This allows you to mix the four tracks together in post to get just the right amount of background sound.
A/V Recorders Buyer's Guide

You want to shoot DCI 4K Raw for your film

Most cameras don't allow you to record in raw format, but raw is often desirable because it gives you all the data produced by the image sensor to provide the most latitude and help preserve your image quality for post.

The Atomos Shogun Inferno ($1,295) supports DCI 4K resolution (4096 x 2160) in the raw format of many popular cameras. It also has a 1500 cd/m², 7-inch screen as well as HDMI and SDI inputs.

Three mics need to be recorded in sync with the video

Most cameras have only two XLR inputs, if they have any at all. Syncing audio and video records in post is a tedious task. With a recorder like the Sound Devices MixPre-3 ($649) or the Tascam DR-701D ($450), you can patch in three mics (four with the SR-701D) and take the HDMI output of your camera to keep the audio in sync with the video. You will want to check manufacturers websites for compatible cameras. One should also note that the DR-701D also has a BNC input for timecode.

You have to record a four-mic acoustic music set

Acoustic instruments, like guitars and violins, are known for producing very subtle tones. In order to get a clean recording, you'll need a recorder with a low noise floor. While most professional recorders don't have very high noise floors, the Zoom F4 ($560) boasts a -127 dBu EIN, which is a noise floor of about 1 dBu over the theoretical minimum. This means you won't have to worry about the recorder adding noise to your tracks.

Record and switch between three camera shots with one camera

Live events can be tough. There often isn't the time, space or budget to setup multiple cameras. The Convergent Design Odyssey 7Q+ ($1,495) can help solve that problem. It allows you to capture one UHD (4K) input and record it in HD, while recording two other HD windows (¼ frame) from the same UHD input. The Q+ even allows you to switch between those three shots while recording that switch and outputting it via SDI. So if you have your camera set with a wide shot of two people seated across from each other, you can position those two windows as single shots of each person while recording a switch between all three shots. You can send that output to a large monitor or to a web stream.

Summing It Up

Production has its challenges, but with the right tools the work is a lot easier. Audio and video recorders can help fill some of the needs when your camera falls short. They can also make your job a bit more comfortable.

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• Multi-Camera Shooting for Event Videography
• What's the Best Video Format for Online Distribution?
Are you frustrated with the audio limitations of your video editing software? Have fellow editors suggested using dedicated audio editing software or even a digital audio workstation? Let’s take a look at some of the more popular audio editing software so you can have a better understanding of what you’re buying and why you’re buying it before spending your hard earned money.

Many digital audio workstations (DAWs) are designed specifically for musicians; programs like FL Studio and Garage Band are great examples. Other software is more diverse. For example, some software is better suited to mixing and editing audio for film and videos, recording and editing ADR or inserting sound effects and Foley in addition to working well for music composition and looping sounds. In this article, we’ll be looking at audio editing software that is more applicable to the video editor.
Equalizers and Spectrum Analyzers

One of the biggest benefits of many DAWs is their equalizers and spectrum analyzers. Most video editing software offers high pass and low pass equalizer (EQ) filters but don’t have 32 band EQ or parametric EQs which are almost standard for DAWs. These more sophisticated EQs allow you to isolate and remove specific sounds from a clip like the chirping of a cricket. Additionally, if you are needing to enhance or eliminate a particular sound in a mix, this can be tricky to do with video editing software because the only graphical view you can often get is an audio waveform showing the gain, or volume. A spectrum analyzer shows you a graph of the gain of different frequencies. Using this can save a lot of time lost to guess work. For example, if you’re trying to augment a person’s voice, you can look at the spectrum analyzer for the right range of frequencies — around 500 Hz to 2 kHz for most people — and find the peaks to show you how you’ll want to adjust your equalizer to enhance their voice.

Noise Reduction and Clip Restoration

Video editing software rarely has much in the way of tools for cleaning up audio clips. If you have audio that has a lot of noise, distortion or additional common issues, a DAW is often your only hope for fixing those tracks.

Plug-ins and File Types

Using a DAW is the only way to get access to some of the powerful audio plug-ins in formats like VST; some of these plug-ins are even free. Additionally, using a DAW will allow you to work with file formats like Broadcast WAV (BWV) and AIFF, giving you options and metadata capabilities that are unavailable in containers like WAV and MP3.

Consider Your Hardware

The first step to finding the right audio editing software for you should be to consider your computer hardware. Some audio software requires more processor power than many video editing packages. There’s a chance your audio card may also need to be upgraded. With that said, an external audio device might be an easy solution for this. Other factors such as your computer’s operating system (OS) can also be a factor since some DAWs are OS specific. In fact, some of these audio editing programs are even specific about the version of that OS. For example, the program might work on Windows 7 but not on Windows 10.

DAW and Controllers

A big part of what sets working with audio in a DAW apart from working with audio in many video editing software is the ability to use a controller. For example, when many think of DAW’s, large mixing consoles is what immediately comes to mind. They picture an audio engineer laying down music tracks like Lucious Lyon in “Empire.” However, mixing consoles can also be used with DAWs to manipulate sound for your video projects. These controllers range in capabilities and price, but what they give you is an interface that is easier to work with. The choice of using a controller or not with your audio editing software is much like the choice of using a camera support. You may be fine using your camera handheld, but the ease of shooting with a camera support is almost always worth the investment. The price range for controllers is also similar in pricing to camera support; they start at less than a hundred dollars with prices up to thousands of dollars depending upon the features you’re looking for. Additionally, most digital mixers can be used as controllers, and many DAWs support live multitrack recording. It’s important to note that many users don’t consider a DAW to truly be a worksta- tion unless the software is paired with a hardware controller.

Finding Your Software

The digital revolution has made pro audio software both affordable and accessible. Let’s take a quick look at some of the more popular programs.

Pro Tools

From the makers of AVID, Pro Tools is the oldest audio engineering software, in fact, the sound for most Hollywood movies are still mastered on a Pro Tools’ system. In recent years, AVID has tried to make Pro Tools more affordable and more accessible. In light of this, Pro Tools is compatible with both Macs and PCs although you do want to check out which versions of these OS are supported. Currently, there are three variants of this non-destructive editing software: Pro Tools First, Pro Tools and Pro Tools Ultimate. Each of these varies in the number of tracks, inputs, plug-ins and projects that they support. Keep in mind that features such as inputs are hardware dependent and limited by your system’s IQ. Pro Tools also offers some very nice hardware that is now compatible with other audio editing programs.

Pro Tools First

This free audio program by AVID is great for beginners who are considering a DAW. It allows first users to collaborate with any Pro Tools user regardless of which version of Pro Tools a partner has. Pro Tools First offers a decent selection of tools including EQs and features 16 audio tracks, four inputs, and 20 plug-ins. However, it does not offer even one channel of video. Because of this, the First version seems to be geared more toward music users as evidence by its 500mb loop library. But is still has some great capabilities for free software!

Pro Tools

The $999 perpetual license includes one year of updates, additional yearly updates will need to be purchased. AVID also offers a $30 monthly subscription on a 12 month contract with a one year commitment. This version of Pro Tools offers 128 audio tracks, 32 inputs, 60 plug-ins, one video channel and unlimited projects. This is one of the best audio engineering software around. Pro Tools does have a steep learning curve, but one that is well worth it. You can test drive Pro Tools with a 30 day free trial to make sure your system will run it.

Pro Tools Ultimate

Featuring capabilities of 256 audio tracks, 192 inputs, 100 plugins, 64 video channels, and unlimited projects. Pro Tools Ultimate costs $999 for a one year subscription paid annually or $2,499 for a perpetual license with one year of updates. Again, like Pro Tools, additional yearly updates will need to be purchased separately for Ultimate. If you’re a serious audio professional working on movies or music and wanting to master in HDE, this version of Pro Tools is bound to fill all of your audio engineering needs! 

Adobe Audition

From the makers of Adobe, Audition is an affordable and user-friendly audio editing program. It is designed to be easy to use, with a clean and intuitive interface. Audition offers a variety of features for audio editing, including audio effects, audio restoration tools, and multitrack recording. One of its standout features is its ability to import and export audio files in a variety of formats. Audition is used in many industries, including music production, voiceover, and podcasting. Overall, Audition is a reliable and powerful tool for audio editing, making it a great choice for both professionals and enthusiasts.

Final Cut Pro

Final Cut Pro is a professional video editing software developed by Apple. It is designed for advanced video editing, and offers a wide range of features for creating high-quality videos. Final Cut Pro supports multiple input sources, including video cameras, external recorders, and smartphones. It also supports a variety of video formats and file types. Final Cut Pro offers a range of tools for video editing, including timelines, transitions, effects, and color grading. Users can also import and edit audio tracks in Final Cut Pro, allowing for the creation of high-quality soundtracks.

Premiere Pro

Premiere Pro is another professional video editing software developed by Adobe. It is an all-in-one solution for video editing, animation, and motion graphics. Premiere Pro offers a range of features for video editing, including timelines, transitions, effects, and color grading. Users can also import and edit audio tracks in Premiere Pro, allowing for the creation of high-quality soundtracks. Premiere Pro supports a wide range of video and audio file formats, and offers a range of tools for advanced editing and creative expression. Overall, Premiere Pro is a powerful tool for video editing, and is used by professionals in many industries.
Audio Editing Software Buyer’s Guide

Adobe Audition
One of Audition’s greatest strengths is its audio restoration abilities. Additionally, Audition is bundled with Adobe Creative Cloud. If you already have a subscription to Adobe CC for its powerful software suite that includes Premiere, After Effects and Photoshop, then Audition is a great bonus that you should consider trying. Adobe CC lets you easily move projects from Audition to Premiere and vice versa, which can make your overall post work a much quicker process. It’s also important to note that Audition has a stand alone monthly subscription. Currently you can get the complete Adobe CC for $53 a month or pay $21 for just Audition. Adobe also offers a complete seven day free trial of Audition with no credit card required, and it’s compatible with both Mac and PC.

Audacity
Audacity is a fast, free open-source audio editing software that’s also really easy to use. Some people don’t like it and don’t consider it a true DAW because it is a destructive file editor; however, with the right file management, this really isn’t an issue. Audacity also has some good plug-ins like FFMpeg that allows you to edit your audio in sync with your video file. If you’re looking for free software that can work with an older system, this is a good option.

Apple Logic Pro X
Logic Pro X is designed to work exclusively with Mac OS. If you have experience working with GarageBand, then you’ll find Logic easy to use since it uses a similar interface. However, Logic offers much more than GarageBand; this audio editor provides a better balance between tools for video and music editing. However, many Final Cut users were not happy when Soundtrack Pro was removed from Final Cut X because they felt Logic did not offer as many tools for video editors. Logic can be purchased outright for $199, which many view as a benefit. Apple currently does not offer a subscription model for Logic.

Magix Sound Forge Pro and Sound Forge Audio Studio
While the name may not be as familiar to editors using Adobe, NIID or Apple Products, Sound Forge has been around for 25 years. Their audio software is more geared toward the video editor, especially their Pro version. Pro offers a robust tool set that one would expect from audio editing software. The Pro version offers both a monthly subscription starting at $15 or a full outright purchase at $399. Additionally, Sound Forge Pro is compatible with both Mac and PC.

Sound Forge Audio Studio is a scaled down version of Pro that retails for $59. Sound Forge Audio Studio has a decent set of tools; it also includes iZotope’s Elements which is a nice plus. A free trial of the Studio version is available.

iZotope RX 6
iZotope is audio software that is known for its restoration capabilities. Like Pro Tools and Sound Forge, iZotope has audio suites whose tools and capabilities increase in proportion to price. It’s also interesting to note that some of iZotope’s more popular tools are available as plug-ins for other audio software. With RX 6 Elements available for $129, RX 6 Standard for $399, and RX 6 Advanced for $1199, you’ll really want to look at the difference in tools to decide which program is right for you.

Steinberg WaveLab 9.5
WaveLab 9.5 is a significant overhaul to previous versions of WaveLab offering much better visual displays which is helpful for its updated and improved spectrogram capabilities. A scaled down Elements version is available for $100 while the full version is available for $560. WaveLab 9.5 is now available for both Mac and PC.

Before You Buy
With all of these software programs, there are many features that they have in common as well as quite a few unique tools specific to each software. Unfortunately, there were too many features for each program to list in this article. Most editors consider using a DAW when there’s a particular problem with a project that they need to solve, so the feature that provides that solution may be what influences the purchase the most. However, video editors usually continue to use that DAW for greater audio control. There is no single best DAW; the best DAW for you will be the one that fits your needs and your budget.

W.H. Bourne is an award-winning filmmaker who has learned that fix in post is not a great solution for anything especially audio!

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The Metro Toronto Convention Centre is buzzing with visitors eagerly crowding around product booths, where exhibitors are demonstrating the latest gear at Profusion 2017 — the highly anticipated imaging technology show held here in November.

On the main stage of the Sony booth, three adventure filmmakers — Peter Wall, Garry Tutte and Ryan Rizzo — are presenting a show and tell. Their slideshow sparkles with stunning images of pristine natural settings, icebergs and polar bears and awe-inspiring landscapes. The filmmakers take turns at the mic walking a rapt audience through the process of capturing stories and images during such an epic and unprecedented expedition – Canada C3.

Wall, a former TV journalist, was hired in 2016 as lead producer to put together a communications team for the C3 signature project in celebration of Canada’s 150th birthday. From June to October, Wall led a team of shooters, producers and drone technicians who filmed, edited and published content from an icebreaker sailing from Toronto, Ontario to Victoria, British Columbia via the Northwest Passage. The 14,000 mile voyage took place over 15 legs and was christened Canada C3 for its mandate to connect Canadians from coast to coast and to share the stories of coastal communities with the rest of the country and indeed with the world via Facebook, one of the expedition’s sponsors.

The expedition was conceived, founded and led by Geoff Green, an internationally decorated explorer with more than a hundred polar expeditions under his belt. Green is the founder of Students On Ice, a non-profit foundation that brings young people together with educators and explorers from around the world and takes them on once-in-a-lifetime polar expeditions. The intrepid adventurer and social entrepreneur...
Multi-skilled Collaborators

When Green asked Wall to select his production team, Wall knew exactly what kind of crew he wanted. Having spent 10 years reporting for CBC, Canada’s public broadcaster, producing, directing, shooting and editing his own current affairs stories, Wall says he came to appreciate multi-skilled, collaborative work.

“When we were putting the team together, that’s what we were looking for. We looked at everyone’s reel and we had to move by what they shot, and that they not only had a real strong visual aesthetic, but also a powerful storytelling ability.”

Wall says his co-leads Rizzo (drone media supervisor and lead tech) and Tutte (producer, director, DOP and drone pilot) brought all that and much more to the project.

“Green’s concept was that for each leg, a new group of participants be brought on-board including scientists, artists, youth, Indigenous Elders and educators. A programming team set out a schedule of events and activities for each leg well in advance of the ship’s next port of call. So, we had the schedule that we would work from,” says Tutte. “But we didn’t necessarily know if something was going to be a great story or whether somebody was going to be a good talker or even whether they would be open to being filmed. There was a lot of on the fly storytelling and decision making.”

Wall shares one example where on-the-spot judgment was needed to pull off a story in Powell River on the Sunshine Coast of British Columbia, the traditional territory of the Tla’amin Nation.

“We were told that we had to reach 20 million Canadians,” said Wall whose first task was to secure on-board internet connectivity over the course of the voyage. “Technical supervisor Rizzo helped outfit the Polar Prince, a former Canadian Coast Guard icebreaker built in 1958, with state-of-the-art satellite technology.

“The geostationary satellite is right above L A. 36,000 kilometers away,” says Wall. “The further north east you go, the lower on the horizon the satellite gets. With this amazing technology, we still had a connection even in the Baffin-Davis straights, with the ship moving and rolling and the satellite elevation barely above the horizon. That allowed us to do a lot of live production.”

Team Management

On the Sony stage, Rizzo is showing slides of crews at work pictured against magnificent coastal scenery while Tutte and Wall explain how they managed rotating crews. For each leg, the onboard team included two stills photographers, two videographers, one drone/media tech, an editor and sometimes an extra shooter. The crew of operators were onboard from two weeks to a month or for two to four legs.

“This meant that the team was constantly changing and constantly adapting — having to learn to work with each other,” says Wall. “But he cast the greatest characters and just put us all on a ship together almost like some crazy post-production reality show,” says Tutte. “Even the fact that every 10 days everybody was changing out and we were getting new creative teams, it really ended up being this amazing meld. I’ve met future collaborators that I’ll work with from here on because we gelled really well.”

The crew’s output was diverse and prolific, says Tutte. The team’s accomplishments are listed on one of the slides in Wall’s presentation: 93 live Facebook videos, over a hundred 360 and VR videos, 120 mini-docs of one to fifteen minutes in length, including music and performance videos; and over 1,000 social media posts (Facebook, Instagram, Twitter, Snapchat) including more than 6,000 photos. The team produced mini-documentaries, topical profiles and photo series for each community they visited. The crew also

off the ship and right away I knew it was very visual. It was just a nice story.”

But when shooting started, Wall realized he only had a couple of hours to shoot the item. “I had another shooter on the ship who was editing a different piece, so I radioed him and asked him to do second camera, and we started shooting interviews,” says Wall. “The other shooter got most of the cover shots and grabbed a photographer so they could do interviews with other people while Ryan and another drone pilot were getting aerials. So within a period of three hours we shot four interviews, all the visuals that we needed, and in a day and a half we put together a four or five minute piece. And we did an Instagram story while we were there as well.”

Sometimes this kind of story chasing would happen twice a day, on one location in the morning and another in the afternoon. “It was somewhere between documentary production and news,” says Tutte.

Wall shares another example of a story the team did on the Sunshine Coast which proved to be very visual.

“We had a 10 day window to film a story. We decided to do a story about a boat that got caught near a reef. The boat had been abandoned and we flew DOP and drone pilot together a four or five minute piece. And we did an Instagram story while we were there as well.”

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has been described by Canadian media as “the man who revolutionized polar and environmental education.”

The mission for Wall and his communications team on the C3 expedition was to produce content across a variety of platforms that focused on four themes: diversity and inclusion, youth engagement, the environment and reconciliation and fairly, building new relationships with Indigenous communities.

“We were told that we had to reach 20 million Canadians,” said Wall whose first task was to secure on-board internet connectivity over the course of the voyage. “Technical supervisor Rizzo helped outfit the Polar Prince, a former Canadian Coast Guard icebreaker built in 1958, with state-of-the-art satellite technology.

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collaborated with museums and educational institutions across the country to facilitate Google Hangouts and virtual classrooms.

“We had a social media producer, a lead producer who was either myself or Garry, and we had journalists on most legs. Everyone was multi-skilled and pretty much anyone could use any of the cameras, although people gravitated to their favorite for their leg.”

Gearing Up

To the appreciation of the Prefusion audience, Tutte goes through the onboard gear for the expedition: one Sony FS7; two FS5s; one a7S II; 47R II; one PXW-X70; one RX 10; various Sony lenses and two Sony Action Cams.

Tutte says the Sony action cams is that they were the better choice for the expedition over the GoPro form factor.

“They’re small, light, you’ve got built-in ND filters, and you can slip lenses on these things really quick,” says Tutte. “But also, they had this incredible slow-mo feature. We could shoot HD at 240 frames per second. Shooting out in nature, you don’t have time to set up a dolly or a slider. You set this thing to 240 and start to do a move across the ground, and it looks like these epic dolly, slider shots.”

The slow-mo feature allowed shooters to significantly enhance the mood of the story says Tutte, who remembers a particularly rewarding moment, shooting on the mountaneous and heavily forested Kodiak Island, just south of Alaska.

“We sat there waiting for this eagle to launch out of a tree. Without the slow-mo, we would have missed the moment; it happened in a blink.”

The rest of the equipment package included six different drones, including DJI Mavic Pro and Phantom 4 Pro Plus drones, along with a variety of 360-degree video cameras provided by Samsung and a Livestreaming unit.

“You could plug your camera into it and stream directly to Facebook or any internet streaming service,” says Tutte. “You could literally hook that on your waist and have a camera set up and be streaming live.” For lights, the crew used ultra-portable and battery-operated Westcott Ice Lights that look very much like a Star Wars lightsaber.

The rest of the equipment package included various Sony FS5, FS7 and DSLR memory cards. You made sure to put a new memory card back into the camera, back into the drone so that they’re ready to go immediately.

Every night, all the footage was backed up to two separate hard drives, with each drive was RAIDed for redundancy. One drive would leave the ship at the end of each leg and be delivered to a central server to be backed up again. The other drive would be available on the ship for archival purposes and to draw from during the production of future segments.

Drone 101

On leg five of the expedition, in the middle of July after heading mostly east on its first four legs to St. John’s, Newfoundland, the Polar Prince started to head north. Taking the same route the Vikings took to establish an outpost in L’Anse aux Meadows on the northern most tip of Newfoundland around the year 1000, the vessel sailed up the Labrador coast along ‘Iceberg Alley’ and Battle Harbour, a restored 18th century fishing village on a small island in the Labrador Sea, the production team made a typical C3
The Production Behind Canada’s C3 Expedition Event

stopover. Following expedition participants — a mix of ‘ordinary Canadians’, one Olympic athlete, entertainment personalities, environmental scientists and educators — the crew captured participants interacting with the locals, discovering the culture and the history, while moving through the breathtaking terrain.

“To truly appreciate the beauty of the country, you need to throw a drone up in the air and see how the mountains meet the water, see how the water meets the land, how everything interconnected,” says Tutte. “Battle Harbour from the air, you’d swear you were looking at the intricacies of the human brain. To see that topography from a bird’s point of view, it gives you a whole new perspective on the country. From a filmmaker’s point of view, the ability to effortlessly put a camera anywhere in three-dimensional space is super-powerful.”

Rizzo, who was lead drone pilot and flight supervisor for the expedition, estimates the crew logged close to 400 hours of drone flying time over the course of the voyage. A seasoned pilot and a tinkerer with drone technology (before drones came on the market in 2012), Rizzo says he encountered some variables on the expedition he’d never run into before.

“For example, with drones we use compasses that are built into them, but when you’re north of the magnetic North Pole your compasses don’t work,” says Rizzo. “We quickly learned how to fly manually for the majority of it.”

He says risk management has to be on top of the list of considerations when launching drone flights, especially when operating in remote regions where drone photography has never been done.

“Because we were operating in air space where a drone could fly out of sight of the pilot, we had spotters who would be out watching with binoculars,” says Rizzo. “In a lot of cases, we were in open air space, so we could fly fairly far and get some really awesome shots.”

To fly a drone safely and effectively, says Rizzo, it’s critical to have a checklist and develop a fixed routine, just like an airplane pilot does before takeoff.

“You have to check your propellers, you got to make sure you take your lens cap off. You got to make sure you have an SD card in, and you have to make sure you’re white balanced,” says Rizzo. “The last thing you want to do is put the drone in the air and then have no SD card in there and then there goes the whale.”

Rizzo says the most exhilarating experience he’s ever had piloting a drone came on the final leg of the expedition.

“Probably the most epic day of my career was coordinating with downtown Vancouver to give us the air space so we could follow the ship into harbour as we came in and around Stanley Park,” says Rizzo.

The sweeping aerial footage of the Polar Prince being welcomed and escorted by local vessels into the bustling downtown port on a bright sunny October morning is truly spectacular.

Live to Legacy

After their last presentation on the Sony stage, Wall, Tutte and Rizzo agreed to look back on their expedition experience over a pint at a nearby pub. The final leg of the expedition ended in Victoria only a week earlier. After stretches of 40 non-stop production days, with maybe six hours of sleep a night in cramped quarters on a 60-year-old ice breaker, they were tired but had some instructive things to say about lessons learned and the future of storytelling.

“The one thing I learned, primarily from Peter, was that you have to be prepared to produce,” says Rizzo who was the first on board in June for technical set up and the last one off the ship after taking everything down and packing up the gear to return to the sponsors. “It was very much like being on a roller coaster. At any given point in time, Peter was going to ask me to go live somewhere at random or, if I knew that there was a possibility we were going to have to fly a drone somewhere on short notice, everything had to be in place for that. Because that whale is not going to come back and smile for you again. Just always be prepared for what your producer wanted.”

Wall says he found that doing the same thing at the same time every day was a good coping tool, so he created daily habits for himself.

“I learned that it’s important to build a routine into chaos, both for yourself and for your team,” says Wall. “I also learned that people do their best work when they feel a sense of ownership in the project. If people had an idea, I encouraged them as much as possible to own that idea from inception to publication. They would go out shoot it and edit it themselves, everything from the subtitles to the little logo ID in the corner of the screen.”

Wall characterized the work of his team as ranging “from live to legacy.” “There was stuff that we were turning around that was going directly live and then there was stuff that we were shooting to have for the documentary for later on, and then there was everything else in between,” says Wall.
Tutte says the expedition made him better at making snap decisions about finding the story and better at multitasking.

“What you couldn’t make up for in skill you can make up for in hours,” Tutte explains. “By putting in that time, flying more drone flights or shooting more footage, or editing more stuff, you get more efficient. So coming out at the tail end of this thing, I feel like I’m better at all the things I did more of.”

The three adventurers who did not know each other before the expedition are already talking about collaborating on future adventure-based projects, but not necessarily inside the traditional broadcasting way of doing things.

“I think the old gatekeeper model of broadcasters who decide what gets seen and who gets to see it is going out the window,” says Wall. “What I think was really exciting about this project, yeah we engaged a lot of traditional media, but more importantly we also told our own stories. From the start, it was important for us to tell these stories in a timely manner, not just to collect a bunch a footage and have a documentary come out eight months down the road.”

Tutte says thanks to Facebook’s sponsorship, audiences can experience all aspects of the expedition online – mini docs, drone footage, photographs, maps, science projects, places, people – all archived chronologically.

“I like to think that coming out of this expedition experience, every creative team member that was involved understands their country a lot better from the ground up and on a first hand and first name basis,” says Tutte. “And with any luck, as part of the legacy, they will continue on to create meaningful content about the country. Not just fluff.”

Tutte says the technology used on Canada C3 is accessible to everybody right down to doing live broadcasts from a cell phone.

“What’s exciting is that you can share your stories in real-time as they’re unfolding. Whether you’re reaching the top of Mt. Everest or you’re stepping into the sunrise on Machu Picchu, or you’re rounding an iceberg in Canada’s Arctic; this is stuff you can share in real time, online, without a broadcaster. It’s the future of storytelling.”

A seasoned script-to-screen television and video producer and trainer, Peter Biesterfeld is a non-fiction storyteller specializing in documentary, current affairs, reality television and educational production.

When you’re making a video, the more planning ahead you do, the better. Figuring out exactly what you’ll be doing during a shoot saves your crew time and labor, and saves you from cost overruns and production headaches. A good storyboard will help you see how your shots fit together before you’ve shot a single foot of film or kilobit of video. It shows your crew what you have in mind, and saves you from trying to convey what you want with wordy explanations and frustrated hand gestures. Communication is a snap.

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 Shoot a Pro Video by Yourself

Filmmaking is a collaborative process, but what do you do when you have no one to collaborate with? Is it possible for one person to make a great film all by themselves?

Early in my video career, I wanted to make a film to enter into a local short film festival. Just one problem: none of my friends or family were available to help me. We all know that filmmaking requires a whole team of collaborators, right? How could I create a film without any cast or crew, much less one that might actually win? Keep reading to find out.

Pre-Production

Know your limits

The first step to successfully making a film all by yourself comes before you even write your script. Don’t bite off more than you can chew. If you know you’ll be flying solo during production, write a script that you’ll be able to execute yourself. This means it’s probably best to limit your number of characters to one, and don’t get too ambitious with your locations or actions either. Remember, every little change in your scene might require you to move the camera, lights, microphone and more — all by yourself.

“Penciled Percussion” won first place in a festival to which it was submitted, even though it was produced entirely by a single person.

“This tip goes for your storyboard, too. Unless you have access to fancy motion control equipment, you’ll want to plan shots for which you can move your camera locked down on a tripod. It’s pretty hard to move a camera and act simultaneously, though not necessarily impossible. In my case, I wrote a film called ‘Penciled Percussion.’ The short piece followed a boy — me — mindlessly tapping a pencil against his desk as he does homework. Over time, the rhythm of tapping leads to an all-out pencil-drum solo on the desk. One character, one location, no dialogue and lots of quick close-ups that would easily cut together in post. Piece of cake.

Planning Your Shoot

You’re going to have a lot on your plate during production — and no one to keep you in check. Therefore, I suggest planning everything out ahead of time and keeping copious notes and lists of everything you need to remember. This includes the obvious stuff like storyboards and shot lists, but even things that are usually second nature might slip your mind when you’re wearing so many hats. Personally, I’ve forgotten to lock my exposure, set focus and even hit record before “filming” entire scenes. So give yourself plenty of reminders to avoid these time-consuming mistakes.

Production

Use your gear

Now is the time to make use of all that gear you’ve got piled up in your closet. After all, who needs a camera when you’ve got a tripod? You’ll most likely want to have your camera on sticks for every shot. You can even add some jitter in post to make your locked down shots look handheld, though this filmmaker prefers the static look. I’d also recommend throwing your boom pole on a c-stand for overhead audio, and external monitors and remotes will come in handy as well.

Stand-ins

Likely, the most challenging part of being a one-man cast and crew is setting up your shot. How can you be in front of and behind the camera at the same time? Sure, a swivel screen or an external monitor can sometimes do the trick. But what if that’s not available, or if your mark is too far away from the camera? This is where a stand-in comes in. Find something that approximates your size and height and place it on your mark, set up your shot — lights, focus, etc. — then hit record and swap yourself in.

You can use a plethora of inanimate objects to stand in your place. A full-size mannequin would be ideal, but assuming you don’t have any of those lying around, your best bet will probably be an extra tripod or light stand. But I’ve used chairs, pillows, boxes — if it’s the right size and you can easily move it around, it’ll work.

Watch back your footage

This might be one of the most important tips for shooting by yourself, and it’s made effortless by digital cameras. Watch back your footage right away. If there is something wrong with your shot — and there probably is — you’ll want to catch it before you move on. Don’t move the camera an inch if you don’t have to. You don’t want to have to reset everything just because your cat was walking by in the background. Oh, and if you record audio separately, make sure you listen to that as well.

Take your time.

One last tip: Take your time. When you’re doing the work of an entire crew, things are bound to go slowly. But the beauty is you’re not waiting anyone’s time but your own. Take as much as you need to get everything just right. Your future self will thank you.

Power Through

Shooting by yourself isn’t ideal, but the lesson to be learned is this: Don’t let any obstacle stop you. In my case, ‘Penciled Percussion’ won first place in the festival and took home an audience choice award as well. It’s easy to give up in the face of your limitations, but it’s much more rewarding to power through and find a creative solution.

That said, just because you can go it alone doesn’t mean you have to. Having an extra person on set will always lighten the load. But even if you’re lucky enough to have a big crew on your next project, these tips might make things go a little more smoothly.

Daniel Hart is an independent filmmaker and freelance videographer. He co-created the YouTube channel ‘Xavious Pictures,’ where he has been creating family-friendly comedy films for over a decade.

You could go so far as putting a sticky note on your camera reminding you to allo turn on the audio recorder. It may seem a little excessive, but hey, who’s gonna know?

If your camera automatically stops recording after a while, set a timer so you know if it shuts off in the middle of your big scene. Make sure you have ample battery life and storage space for the same reason.
Monitoring Video While Editing

by Chris Gates

The eyeball test will fail even the most seasoned editor. The human visual system has the uncanny ability to correct flawed images. Pair that ability with variances in display technology and you have the recipe for an image disaster.

Every major video editing application equips the preview monitor window with a suite of tools to evaluate, measure and deliver an accurate display of the video image. Understanding these tools and how to use them will help you to craft an image that is consistent and true — just the way you want your audience to see it.

Safe Zone Guides

A simple but powerful tool on the preview monitor are the overlay guidelines, most notably the Action Safe and Title Safe area guides. When the safe zone guides are activated, the preview monitor displays two concentric rectangles that overlay the video image towards the outer edge of the screen. These safe zone guides provide a practical forecast of what will be safely framed for the audience. They also serve as a simple design tool for the alignment, layout and display of graphics.

The inner rectangle is the Title Safe guide. It establishes an area for any titles or graphics that you intend to place in the video. Anything that falls within this area is safe to be read by the audience and will not be cropped out of the frame by the edge of the final display device.

The outermost guide is the Action Safe guide. Anything that happens within this area is generally safe to make it to screen for the viewer. The other purpose of the Action Safe guide is to establish a perimeter within the video. If graphics are placed within the Title Safe region, the Action Safe region is the portion of the video that will be a buffer, or a margin for the graphics and the edge of the screen.

Scopes

The various scopes found in video editing applications are used to calibrate and align the color quality of shadows, midtones and highlights.

In addition to the waveform monitor is the RGB parade, which functions in much the same way. Instead of measuring only the luminance values of the image, the RGB parade measures the luminance values of the separate red, green and blue channels. It’s a helpful tool when trying to balance the overall color of an image, especially when you have white balance issues.

YOU CAN’T CONTROL EVERY SCREEN YOUR WORK GOES TO, BUT YOU CAN CONTROL YOUR OWN SCREEN.

The vectorscope measures the overall chrominance, or color values of the image. It’s arranged in a radial format with specific color targets marked on the scope. The angle at which data reads on the scope is indicative of the color being displayed, while the proximity of the data in relation to the center of the scope indicates saturation. The further a point is from the center, the higher its saturation value. The use of a color target card on set and a vectorscope in the edit bay can make color correction a simple process.

Screen Calibration

A monitor that is properly calibrated will save you valuable time. Display devices come in all shapes and sizes, and since image quality can be adjusted, it’s a common occurrence that an image will appear subtly different for each screen it’s displayed on. You can’t control every screen your work goes to, but you can control your own screen. The use of a screen calibration device and of software will help you to set up your monitor so its colors are accurate and match the true value of the image as represented in the scopes.

As video editors, we look at a lot of things — most notably our output monitor. It’s easy to look at the preview monitor as just another window, but it’s more than a pane in the NLE; it’s a tool that offers an honest view of what you have on screen.

The RGB parade is a lot like the waveform monitor, but instead of overall luminance, it shows the luminance values for each of the three color channels.

The vectorscope is a very handy tool for color correction. The use of a color target card on set and a vectorscope in the edit bay can make color correction a simple process.

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You may have noticed that things look a bit different around Videomaker.com. That’s because we’ve been working hard to modernize the site, making it cleaner, faster and easier to navigate. Check it out and let us know what you think!

To celebrate, Videomaker recently hosted the Great Gear Giveaway, which included more than $20,000 in production gear for video producers at every level. Three lucky winners took home either the $10,000 Pro Package, the $5,000 Hybrid Shooter Package or the $5,000 Beginner Package.

Every single package featured an awesome new camera — or two! — and a bundle of other sweet prizes to round out any production kit, from industry standard editing software to recording media to camera support and more. Now that the Great Gear Giveaway has concluded, let’s take a look back at our three lucky winners.

**The Beginner Package**

Our first winner, taking home the Beginner prize pack, is Mandy B. But instead of taking the bundle of video gear valued at more than $5,000 for herself, she’s going to give it away. That’s right! Mandy is going to be giving her prizes to her good friend Robert Diviak. That is one heck of a gift!

Mandy says that Robert loves audiovisual and camera equipment, but his current camera is so old that it makes it difficult for him to capture clear and crisp images of his toy car collection, which he loves to photograph — he’s overdue for an upgrade. She also says that Robert is intending to attend a videography course at the end of the year, so he can shoot video of cars he likes at car shows for an online magazine.

Congratulations to both Mandy and Robert! We hope that Robert finds everything we’re giving away useful in his future photo and video endeavors — and that he never stops thanking his awesome friend Mandy!

**The Hybrid Shooter Package**

David Bark, our second winner in the Great Gear Giveaway, will receive the Hybrid Shooter Package. David originally started out as a graphic designer, but after borrowing an old video camera from his brother, he became hooked on video production.

“All of a sudden, I was filming everything under the sun,” David recalls. “I taught myself to edit on iMovie, graduated to Final Cut Pro, and ultimately wound up going to school to get my degree in Media Arts with an emphasis on video production.” David adds, “I definitely have learned a lot from Videomaker, too, especially in the early years.”

So, what will David do with all that new gear?

“I did some freelance video production for a time, and I have plans to get back to that,” David tells us. “This contest is definitely going to make that a lot easier. Thanks again!”

Thank YOU, David! Videomaker would be nothing without readers like you.

**The Pro Package**

Amanda Hulse is lucky enough to be our grand prize winner. She will receive the Pro Package, which includes more than $10,000 in video gear.

Amanda is the Senior Partner of Hulse Videography, LLC, a family owned and operated event videography company. “We specialize in producing keepsakes of Orthodox sacraments,” Amanda explains. “For example, Greek Orthodox weddings and baptisms.”

Amanda is particularly excited to bring 360-degree video capabilities to her video production repertoire.

Robert will benefit from Mandy’s good luck with a slew of new gear to help him improve the quality of his photos and videos. David has plans to use his newly acquired gear to grow a freelance video production business.
Best Frame Rates for Slow-mo

by Kyle Cassidy

Slow motion adds a new perspective to things we've seen before. When the frame rate goes up, things slow down and we know something spectacular is about to happen.

Until recently, directors didn’t have a lot of choice in slow motion without highly specialized equipment. 1987’s Panaflex Gold II, for example, could only shoot at maximum 40 frames per second (fps). Today, inexpensive cameras are readily available that will shoot 240 fps, opening up a wide world of possibilities.

Slow motion occurs when your shooting frame rate is greater than your playback frame rate, which might seem a little counterintuitive. The faster your frame rate while shooting, the slower things will look when you playback. This is largely because playback frame rates are always the same. Well, they’re not always exactly the same, and it’s very complicated why they’re not — but let’s just pretend that they are for now.

Video plays back at 30 frames a second and movies — like the sort that you see in a movie theater — playback at 24 frames per second. These four missing frames cause a whole world of pain when trying to put a movie on TV. So, caveats aside, if you shoot video at 120 frames per second and then play it back, it will appear four times slower because it takes four seconds for those same 120 frames to appear when played back at 30 fps. If you have a Phantom Flex camera shooting 10,000 frames a second, it will take 333 seconds, or nearly six minutes, for one real time second to pass.

Choosing the Right Frame Rate

In the past, we’ve talked about some things that look interesting when filmed in slow motion, but let’s take a look at what frame rates might be best for different things. All of this is subjective though — Fox Sports, for example, used nine different slow motion cameras, ranging from 360 fps to 2,000 fps to cover the 2017 World Series.

60 fps: things that are already pretty slow. People walking, candles being blown out on a cake. Somewhere around 60 fps is the standard Hollywood dramatic — people getting dressed, walking through school hallways, looking, you know, dramatic. For instance, in Tilda Swinton’s 2017 adventure extravaganza “The Guardian,” there is, of course, a mammoth battle at the end. When Valkyrie, played by Tessa Thompson, arrives to deliver a serious smackdown to a thousand villains, she enters by walking in at about 60 fps. That’s the sort of(arrangement) running in slow motion along a beach; it lasts for nearly a minute, which is a pretty long time to stay on one shot, but it’s also got the classic song by Van Halen playing and the shot is being used to introduce the stars of the film one at a time.

Even people who are running pretty fast are too slow for some film speeds. Jamaican sprinter Usain Bolt set the 100 meter dash world record at 9.69 seconds — which means, shot at 1000 fps, it would take him nearly six minutes to finish the race. However, 1000 fps is great for photographing things that happen in the blink of an eye, like the explosions in Kathryn Bigelow’s 2008 film “The Hurt Locker,” which were filmed on a Phantom HD camera. This gives you the opportunity to see great things thrown into the air, individual rocks come apart and people fall to the ground.

Different frame rates can even be used within a single production, according to the shot and subject matter. High speed cameras — really high speed cameras — allow you to capture things like water balloons bursting and guitars exploding, and slower, but still high speed, cameras can be used to allow people moving.

The OK Go video for “The One Moment” was shot in 4.2 seconds of real time with a variety of cameras with frame rates between 90 and 6,000 fps and it, like many OK Go videos, is one of the most technically brilliant pieces of short filmmaking ever.

Slow-mo is an art. None of this is hard and fast — the limits are your filmmaking imagina- tion, the equipment you have access to and your ability to tell a story. If Brian De Palma had a 1000 fps camera in 1987, he might have used it, but he didn’t and he still managed to make a blockbuster that grossed a hundred million dollars and was nominated for four Oscars. Use what you have and fill in the gaps with good storytelling.

Capture some good slow motion footage? Tell us about it in the Video- maker forum.

You can comment on this article by going online: www.videomaker.com/article/103951

Kyle Cassidy is a writer and artist living in Philadelphia.

You can comment on this article by going online: www.videomaker.com/article/103951

SHOOTING by Kyle Cassidy

In “Thor Ragnarok,” slow-mo adds an extra boost of drama and anticipation to Valkyrie’s arrival on the battlefield. The scene was shot at 60 frames per second.

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What's in Your Light Kit?

The key to capturing great video is great lighting. And for that, you need the right tools. We sit down with a working Director of Photography and find out just what's in his light kit.

“People tend to obsess over cameras and lenses, but what they think is a good camera or a good lens actually is just good lighting,” says Director of Photography William Hellmuth. He is based in Orange County and has been behind the camera for more than 10 years. He got his start working on productions for the National Park Service but has branched out to commercials, productions for the National Park Service and, as time permits, volunteering with working professional theater groups.

Recently, Hellmuth has found a small, battery powered LED called the Quasar Q to be a life saver. “They are extremely useful. I can just kind of pop up whenever I need. I use those on just about every shoot for little highlights and things like that.” He says the Quasars are great when there’s a camera shift and you just need a quick punch of light somewhere, even on the background. He’s also a big fan of reflectors. “I shot an entire music video that came out really nice, just using the sun as a back light and bouncing the sun back onto the singer’s face. It is amazing how much better a simple bounce can make everything look.”

Getting Started

Hellmuth says that mastering lighting is a matter of angles and knowledge — and the best way to learn that is to start as inexpensively as possible. He says that you can find lights, especially tungsten fixtures, from all sorts of places like churches, schools or theater groups.

He says to start out with the basics: “I would recommend just getting your hands on any tungsten spotlight. Like a 650 or a 350 (Watt).” Learn how to control the light and how to bounce it. “He says to light simple subjects in a variety of different settings to record your work. That’s the best way to see the results. He also recommends volunteering with working professionals and, as time permits, ask questions. You don’t need a lot of fancy equipment in your light kit; you just need to learn how to best use what you have.

You can see some of Hellmuth’s work and catch up with his latest projects, on his web site at www.williamhellmuth.com.

Jeff Chaves is the Chief Creative Officer of Grace Pictures Inc., which he co-owns with his wife, Peggy. He got his start as an Army Broadcaster in the 1980s and spent 12 plus years working on broadcast, Jeff left broadcast television to pursue full-time ministry.

You can comment on this article by going online: www.videomaker.com/article/19350
Microphone Hide and Seek

by David G. Welton

In a scripted sitcom, the audience never sees a mic. Why? The production must sustain the illusion that the audience is watching the characters live out their lives. A visible mic would destroy that illusion in the same way that an accidental wide shot would show that the characters are actually on a set and not in their kitchen. The challenge lies in hiding the mic from the camera’s prying eyes.

In this article, we’ll explore how to capture audio with a mic cleverly placed on the human body, just outside the camera’s view. You’ll learn how to use a special mic that is great for hiding, because it is super small.

Lavalier Basics

A tiny lavalier mic is unobtrusive and typically attaches to the clothing of the talent. Sometimes spelled “lava lure,” it is a French word for an ornamental pendant worn on a chain around the neck. Years ago, bulky lavalier mics hung around the neck on a necklace. Nowadays, these mics are extremely small and often called a “lapel” mic.

Essentially all modern lavalier mics use a condenser transducer to convert acoustic energy into electrical energy. This is the type of mic that permits your cellphone’s speakerphone to work in magic. Most lavaliers have an omni-directional polar pattern that picks up sound coming from virtually all directions.

These minuscule mics work best when attached to clothing at a person’s sternum. This placement allows the mic to pick up some of the resonant sounds from the chest. If placed elsewhere on the body, some EQ adjustments may be required in post-production to fill out the tonal quality of the audio.

Concealing in a Shirt or Blouse

The most common garment worn on the upper body is undoubtedly a shirt or blouse. This wardrobe choice offers several opportunities for hiding mics. Let’s look at some of them:

1. On a dark-colored, buttoned, dress shirt you might be able to pop the tip of a black lavalier mic out of a button hole. On the inside of the shirt, use gaffer’s tape to secure the mic and cable. With appropriate lighting and favorable camera angles, the audience will likely never notice the mic.

2. On that same dress shirt, you might be able to hide the mic in the cloth flap between two buttons. Put a loop of self-adhesive moleskin around the body of the mic to minimize contact noise with the shirt’s material. Most pharmacy stores sell moleskin.

3. Another obvious hiding place is at the knot. Loosen the knot and feed the mic through so that it barely hangs out the bottom. Using a mini-omni-directional mic is critical here, because it will be pointed away from the talent’s mouth.

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5. What about a traditional two or three button polo shirt? In this scenario you can place the lavalier in the “V” below the buttons. Use gaffer’s tape to secure the mic and cable inside the shirt.

6. Another option is to hide the lavalier under the collar of a shirt. Use gaffer’s tape to run the wire around the back. Try to determine if the talent will be turning their head to one side or the other, then place the mic on the side the talent will turn towards most often.

7. A T-shirt affords a challenge, but one that can be overcome. In this situation, attaching the mic directly to the chest of the talent is a good option. Use first aid tape to attach the mic directly to the talent’s chest.

buffer between the mic and the shirt.

Other places to hide a lavalier include under the brim of a baseball cap, or along the brim of a fedora-style hat. You can even hollow out a plastic writing pen, feed a tiny mic through to the top, and run the cable through a small hole on the inside of a dress shirt pocket.

The best advice is to hide a lavalier only if there are no other possibilities — like the use of a shotgun mic. Also, be aware of personal privacy issues when placing microphones on talent.

In post-production to fill out the tonal quality of the audio.

Privacy issues when placing microphones on talent. Finally, be sure to use headphones to monitor the audio and listen specifically for noise generated by clothing coming into contact with the mic.

David G. Welton teaches in the Radio/TV/Film Department at Butte College in Northern California.

You can comment on this article by going online: www.videomaker.com/article/10356

Most outfits will offer a number of options for hiding a small microphone. If wardrobe makes it especially tricky, you can always use first aid tape and moleskin to attach the mic directly to the talent’s chest.

• Washed-out Color • Shaky Camera Work • Hisses and Hums • The Visible Boom Mic

These are a Few of Our (Least) Favorite Things!

Chances are that you encountered one or more of these the very first time you edited video. We’re sorry to say, no matter how careful you are, you’re sure to encounter them repeatedly over the course of your video career.

These problems plague all videographers, but good ones know how to stop them dead in their tracks. Videomaker’s How To: Fix It In Post instructional video teaches you how to fix the six major problems that we hear about over and over again:

• How to Color Correct Video
• How to Deinterlace Footage
• How to Fix Shaky Footage
• How to Get Rid of Hisses and Hums in Audio
• How to Convert Frame Rates
• How to Get Rid of Unwanted Objects in Footage

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How to Break Down a Script

Creating a script breakdown is tedious work, but the benefits to your schedule and budget are invaluable. All you need is patience and attention to detail.

What's the Point?
The organization a script breakdown brings to your production will assist in your scheduling and budgeting, and it can help on the set in terms of giving actors directions. Once you're done, you'll know the script inside and out. You'll have been forced to think through the multiple ways you want a scene to play out, so you'll be able to handle any questions your actors may have during filming.

Measure and Label
The first job is to get an idea of how many scenes you have and the projected run-time and shoot time for each. To get started, you need to divide your (properly formatted) script into eighths. This entails literally drawing straight lines across each page of your script, cutting the page into eight parts and numbering the scenes as you go. This process gives you a more accurate idea of how long individual scenes will be, how many you have, and approximately how long it will take to film each one. If you have a scene that runs onto a second page, it's tempting to call it a page and a half. Measured out, however — it may only be 1.25.

If there's only a couple lines of dialogue, the timing is shortened even more, so your “page and a half” realistically becomes one page in terms of set scheduling.

What to Breakdown
When you're done measuring the eighths, it's time to figure out the different elements you're looking for within the script; the things you're breaking down:

- Location/Set Dressing - It's important to know where you're going to be shooting and what kind of scene you'll need. Old-timey western bars, for instance, will need specific set dressing and props.
- Characters/Extras - Knowing how many characters appear in each scene and roughly how long they'll be on screen will aid in scheduling your actors. This part of the breakdown also forces you to think ahead about when you might need extras. Restaurants will likely have other patrons aside from your main cast and party scenes aren't very convincing without guests.
- Wardrobe/Makeup - Where there's a cast, there will be a need for makeup and costumes. Keeping track of when characters need specific wardrobe or makeup eliminates on-set frustrations.
- Special Effects - If you know a scene will require special effects — practical, makeup or computer generated — mark it down. If you need blood packs or green screens, it's important to know beforehand.
- Stunts/Special Equipment - If part of your scene requires stunt work or special tools — camera cranes, pulleys, an underwater rig — it's important to note which scenes require them.
- Props - You need to account for the work you've put into your script breakdown. They're quick visual reminders of everything you'll need for a given scene within your script, giving you a better idea of the schedule and budget you'll need to account for.

Go through your entire script, eighth by eighth, and highlight all the elements with the colors you've selected. Some parts may use multiple elements, in which case you'll use several colors to highlight. For instance, a single action may include stunts, makeup and special equipment.

Breakdown Sheet
Once the keywords are highlighted, it's time to log everything on your breakdown sheet. These don't have to be complicated, and there are plenty of templates out there to fit your needs. You need at least one sheet per scene, with body boxes for each element you're keeping track of. All you do is input the highlighted elements into the correct box on the sheet. Breakdown sheets are the culmination of all the work you've put into your script breakdown. They're quick visual reminders of everything you'll need for a given scene within your script, giving you a better idea of the schedule and budget you'll need to account for.

Going Beyond
You're done! It's a lot of work, but there's no time to pat yourself on the back. Take everything you've gathered from your breakdown and put it to good use. Use the breakdown sheets to develop your scene strips and production board in order to earnestly begin working out your shooting schedule and budget.

Once production begins, keep that colorful breakdown script handy. In the hustle and bustle on set it's easy to forget elements/ideas for specific scenes. Keeping your breakdown close provides excellent reminders throughout the process. In just about every phase of production, the work you put into the script breakdown will pay dividends.

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Make Your Contract Bulletproof

by Mark Levy and Roman Zelichenko

Have you ever asked yourself whether your contract was good enough? If you’re like most freelancers or small business owners, you probably don’t have the time or, frankly, the desire to deal with something as mundane as a contract. And, for the most part, you don’t have to. Drafting a contract from scratch is mostly unnecessary since the internet has dozens of websites that provide decent templates for different situations across industries.

But templates are just that — generic documents that cover a wide range of scenarios using broad language. They’re a good place to start but are too often sent to clients with minimal, if any, changes. And while this is quick and easy, it can lead to issues down the road and a business sinkhole. A contract, according to Cornell’s legal dictionary, is “an agreement between private parties creating mutual obligations enforceable by law.” Usually this plays out as a promise that you’ll do something extra that wasn’t stipulated in the contract.

Are contracts really that important?

A contract, according to Cornell’s legal dictionary, is “an agreement between private parties creating mutual obligations enforceable by law.” Usually this plays out as a promise that you’ll do something extra that wasn’t stipulated in the contract.

But things don’t always work out as planned. Sometimes contracts are broken. Still, that doesn’t necessarily mean you’re going to end up in court. The legal process can be long, complicated and expensive. That’s why parties tend to try to remedy contract breaches outside the courtroom whenever possible.

Indeed, a lot of negotiation happens informally. For example, if you can’t finish a video on time, you may reach out to your client, explain the situation and try to figure something out that works for both sides. Maybe you bring on a subcontractor to finish the job and eat the difference in price, or perhaps you renegotiate a lower price over the delay and, for some good business karma, throw in something extra that wasn’t stipulated in the contract. In other words, you can often remedy a bad situation without bringing contract language into it.

However, it’s also not uncommon to find yourself in court on a breach of contract action, in which case the other side’s lawyer will be picking apart every word. This is where using a template can be tricky. The nonspecific language that sounded good when you were rushing to get it out the door and move things along can actually be so generic as to fail to cover an otherwise foreseeable scenario. And as lawyers, it’s easy for us to focus on a worst-case scenario. After all, it’s what we do. But a worst-case scenario can easily also end up being a most-expensive scenario, in which case nobody wins.

Should you go DIY or ESQ?

So what are the best ways to avoid contract chaos? If you choose to draft it yourself, please allocate time and attention to it, especially if you don’t have legal training or experience. There are plenty of free resources out there.

Or if you want to be extra safe, hire a lawyer with contract experience. If you want to take the do-it-yourself (DIY) route, websites like LegalZoom and Rocket Lawyer make it easy to find and download contract templates for various scenarios such as freelance and consultancy work. These sites even have informative blogs that can help you think through your specific situation and edit your template accordingly.

There are also plenty of non-legal websites and blogs with downloadable boilerplate contracts. For example, if you search “video production contract template” on Google, you will find a handful of websites with well-crafted templates and helpful information. **Videomaker** also offers the “Complete Book of Forms,” which includes templates for all the contracts you might need along with other useful resources.

As you download and look at multiple templates side-by-side, you’ll start seeing slightly different versions of similar contractual language. Pick the language that most closely matches your circumstance. It’s also a learning experience and can even help you shape the way you do business. For example, first-time freelancers can be shy when it comes to asking for payment and negotiating rates. Reading through a Payment or Fee Schedule clause in a contract can help frame the process in business terms and make it less scary to ask for a deposit or refuse to do additional work for free. Ultimately, you don’t have to be a lawyer to put together a solid contract, you just need to put the time and effort into it.

On the other hand, if you want to be absolutely sure that your contract is air-tight, especially if you don’t have enough time to carefully work through it yourself, you can and should hire a lawyer. Sure, this makes things a bit more expensive, but the security and safety of having a professionally drafted contract may be worth it, particularly if the job is big or the client is corporate. And, truth be told, it’s usually not prohibitively expensive to have a lawyer draft a contract. You don’t have to go with a fancy corporate law firm. A solo practitioner or freelance attorney will usually do the trick, and they’ll charge you much less than a big law firm might.

Conclusion

No matter how you go about your contract, the most important thing is that you actually devote time and attention to it. This way, if something goes wrong, particularly if it’s out of your control, you will at least have some peace of mind knowing that you will be protected in a court of law. Having a bulletproof contract, as inconvenient as it is to obtain one, can be the difference between a bump in the road and a business sinkhole.

Roman Zelichenko, based in New York City, is a writer and entrepreneur with intellectual property experience, and has drafted legal opinions and articles on the subject. Mark Levy is an award-winning amateur movie maker and intellectual property attorney based in Colorado.

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OPINION

by Sean Berry

Videography Has Become a Vital Tool For Protecting Our Constitutional Rights

Many legal experts would argue it’s an American’s First Amendment right to film police officers. Yet that right has been repeatedly violated by law enforcement in recent times. This fact isn’t something to be taken lightly. It’s dangerous not only to those filming, but also to our rights as American citizens.

In May 2018, a MESA College police officer un-holstered his gun and pointed it an unarmed videographer that was filming him. It all happened about a block away from the MESA College campus on Armstrong Place in San Diego, CA. The videographer, who runs a YouTube channel called The California Citizens Watch, approached campus officer James Everette while he was in the middle of a routine traffic stop.

The videographer was filming Everette with a GoPro mounted onto a handheld stabilizer. Everette asked him to put the stabilizer down, claiming he didn’t know what it was. When the videographer refused, explaining that he only had a camera, Everette pulled his gun from his holster and pointed it at the videographer. Thankfully no one was hurt in this situation. Tensions died down when backup that Everette called for arrived, but that alone didn’t justify officer Everette pointing his weapon. Don’t get us wrong, police officers have a extremely tough job. They face potentially dangerous situations daily and they often go into them blind not knowing who to trust. But it’s completely unacceptable for an officer to use his position of power to threaten with his gun an unarmed citizen, operating within his legal rights — no matter how annoyingly noncompliant the citizen is.

Officer Everette had no authority to point his gun at the videographer. He wasn’t faced with any imminent threat to his life. He used his gun to threaten the videographer to make him do what he wanted him to do, rather than to protect himself from danger.

Videography is essential to protecting our rights. Videography, especially since the development of the smartphone, has become a powerful tool citizens can use to protect their rights and to keep those of power in check. It makes those that act unlawfully accountable for their actions.

Because of the videographer’s video, Officer Everette is currently under an internal investigation and is on paid leave. It’s less likely this would have blown up like it did if there wasn’t video of the entire encounter. Now, we aren’t telling you to start going around brashly confronting police officers like this videographer did, but it’s important to know your rights so you can use them to protect yourself if need be. Citizens have the legal right to document police officers. Whether that be through photography or videography, it’s a means to keep the police in check through the system of checks and balances, reminding those in power that the law doesn’t just pertain to the general public; it pertains to the powerful as well.

Sean Berry is a full supporter of documentive videography being used as a means of checks and balances. He is also a one of Videomaker’s contributing editors.

You can comment on this article by going online: www.videomaker.com/article/19511
We Don’t Need Facebook to be a Video Platform

Facebook hates it when you’re not on Facebook. That’s why they’re trying their best to take hold of the video streaming market in addition to social networking.

Facebook’s new Fb.gg is their latest effort to strengthen the platform’s hold on our eyeballs — Facebook is now aiming to compete not just with the YouTube but also with Amazon’s massive streaming platform, Twitch.

But is anyone interested in streaming or watching video game play on Facebook? And do we want Facebook to serve as a video sharing platform as well as a social networking hub? Facebook has more than two billion users and at least some of them are bound to enjoy watching video on Facebook, but as of now, I’m not impressed.

Facebook has some advantages. While Facebook is clearly late to the online video party, the platform does have some specific advantages. For instance, Facebook could use its extensive collection of user data to recommend videos based on Facebook activity, which covers a lot more than just video viewing habits. This could give Facebook a leg up over its competition when it comes to serving up videos viewers actually want to watch.

In addition, new streamers on Fb.gg may have the advantage of early adoption. If the platform continues to grow, currently unknown streaming personalities will have gotten in on the ground floor. However, I’m still not sure these advantages will be enough to entice either streamers or viewers to the platform.

Can Facebook take over video? As much as Facebook wants your viewership, there are a few limitations holding the platform back from total video — and by extension, internet — domination. One barrier is the nature of the News Feed. Facebook’s News Feed is a more or less endless stream of disorganized media and information. It’s transience may lend itself well to the live video format, but the limited archival and search features mean individual videos and posts have an exceedingly short life — even in cases where a video has gone viral. The new Fb.gg hub, where viewers can access an organized library of video gaming streams, is one way Facebook is attempting to mitigate these shortcomings, but the truth is Facebook simply wasn’t built as a video sharing platform.

The other big challenge is monetization — a particularly hot topic with the recent changes to the YouTube Partner Program and the introduction of stricter eligibility requirements. Along with the launch of Fb.gg, Facebook’s also opening its monetization options to a larger body of gaming broadcasters. It’s Level Up program will allow those with access to the program the ability to take virtual currency in the form of tips given by their stream viewers. Will the Level Up program be appealing enough to bring new creators to the platform in the wake of YouTube’s Adpocalypse? At this point, it’s difficult to say.

In the end, however, the current cultural perception of Facebook as out of date and less than cool will likely be the most stubborn obstacle to building a thriving video community on the platform. With everyone and their grandma on Facebook these days, will YouTubers and Twitch streamers be able to build a consistent and relevant fanbase? Does it make sense to try?

Looking Ahead

Facebook is clearly hoping to attract a young crowd of video viewers with the launch of its new video gaming hub, but can Fb.gg move Facebook closer to becoming a video sharing destination? That will depend on Facebook’s users’ willingness to watch longer videos and streams on the platform and how well Facebook addresses the platform’s current limitations. In any case, Facebook’s motivation will always be to get you to spend more time on Facebook. Injecting the platform with video-focused features is just another way to capture your attention. We’ll all need to decide how much attention we want to give.

Nicole LaJeunesse is Videomaker’s managing editor.

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The 6 Basic Steps to Compressing Clean, High Quality Online Videos That Leap off the Screen

Video formatting is the key to sharing your videos and getting them online. Choosing the right video format can be difficult, but it can mean a larger, more appreciative viewership.

At Videomaker we want to give you the knowledge you need to make great videos and choose the best video formats for web distribution. This free report can help you to create a better video when you have the right tools and knowledge. In the beginning, all of us were new at video editing, and we understand how frustrating it can be to have a desired look and lack the knowledge needed to create the best result.

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