Graham's Photoblog Newsletter

For Week Ending 6th March 2021

Is this the Worst Vlogging Camera Canon Ever Made?

This month I made a terrible purchase, in truth I just did not do enough research, I went just on the specification for the camera alone!

I wanted a 1 inch sensor compact camera that would shoot 4K video without the extra x1.7 crop normally seen and it had to have an audio input port.

The market isn't really that big for this type of camera only Panasonic, Sony and Canon do such devices.

Panasonic, well if you followed my blog for long enough you know I fell out of love with Panasonic compacts after numerous purchases over the years have all ended up with sensor dust and dust on the inside element of the lens. The Sony might be nice but a 5 min record time in 4K and a hefty price tag meant it wasn't even in the running. That left Canon in the frame and I looked at the Powershot G7x mk3. From the specification it seemed to offer all that I wanted. Having had the Powershot SX720 and the 4K enabled SX740 I thought that the G7X mk3 would be ideal for 4K video when I just wanted to take a lightweight pocketable camera out with me.

It has a stacked 1 inch sensor, which has to the a couple of generations old Sony sensor, that used contrast based AF – not the superb dual pixel AF of the EOS M later series cameras. Had I taken the time to research the camera a little more I would have found that this camera, from day 1 had AF issues. Canon implemented an AF "fix" in late 2019 which added a new AF mode which was supposed to overcome the problems with focus drifting, not locking onto faces when using face detect and reduce hunting. It also did not have the 24p mode that a lot of people were asking for to obtain that "cinematic look" Again Canon added 24p in a later update – but this only appeared in the menu if you selected NTSC region rather than PAL.

It was only after I did my first vlogging style video to camera in 4K did I see the same focus issues that plagued the camera prior to the supposed "fix" implementation. Even though the focus lock indicator indicated that the face was being tracked that didn't really translate into clips that were actually in focus!

In 1080p the issue looked even more pronounced. Video is all auto or all manual with no aperture or shutter priority video modes.

The G7x mk3 complete with the "creator's kit" which includes the HD-100TBR tripod with BR-E1 Bluetooth remote control which allows control of the camera including the zoom and AF. You get the mic bracket to which I have attached the Boya BY M1 microphone. Included is a 64GB SD card as well. Buying the creator's kit saves about £70 when you include the SD card compared to buying the separate pieces.

Although there is no additional crop (as long as you don't enable the highest lens stabiliser mode) the 24mm effective focal length is still a little too wide for vlogging. Even with the camera at arm's length (increasing the strain on your shoulders) the image looks too close and is difficult to keep your head and shoulders in the frame. With a 24 to 100mm EFL lens the x4 zoom doesn't indicate the selected focal length so it is somewhat of a guess what focal length that you have set – another disappointment.

The field of view with the camera at arm's length.

As a stills camera it is quite impressive, as you would expect from a 1 inch sensor.

The lens aperture ranges from F1.8 at 24mm to F2.8 at 100mm EFL. It is quite sharp centre to edge at F5.6 and 50mm EFL which appears to be the sweet spot.

At F1.8 the centre is fine with a noticeable softening at the corners improving at F4. Diffraction starts to impact quality at F8 with the smallest aperture being F11.

Crops from images showing centre to edge definition of the lens

Establishing the point at which centre and edge definition are equal. At 50mm EFL F5.6 appears to the sweet spot for this lens.

The hand held night shot mode uses several images combined to reduce noise and is very useable.

A couple of still extracts from a 4K MP4 video files showing the level of detail possible using video files for still photography when you need to grab a critical moment. F5.6 aperture setting in creative video mode.

Whilst shooting video the AF point appears to stay locked on it just seems that face detect AF doesn't stay locked on with drifting in and out of focus.

It also appears that it is worse when shooting 1080-p video as opposed to shooting 4K files.

A couple of out of camera JPEG still images showing the amount of detail and colour saturation that the camera delivers. This is one of its stronger points – especially if you keep to mid aperture and mid focal length it really does deliver some pretty good images without much need for additional processing.

You can see my overview of this camera with additional video/stills samples at:

link to YouTube Video

I have my full review of this camera in Full Review in the Travel zoom section of my Photoblog.

Olympus x1.4 teleconverter

Polaroid 250D Close-up lens

With a bit of simple construction it is possible to use these devices on any travel zoom camera.

All that is needed is to support the lens over the largest part of the zoom lens for the teleconverter and over the front element of the lens for close-up lenses or filters.

For the teleconverter I used the LA7 tube that I used with the Fz200 camera as this slid perfectly over the lens aperture ring of the GX7-X mk3 camera.

For the close-up lens I used a small piece of plastic pipe (used for basin/shower fittings etc) and glued an old 52mm UV filter into the tube and then removed the filter and its locking ring so that the filter holder acted as a thread for any new lenses or filters that I wished to attach.
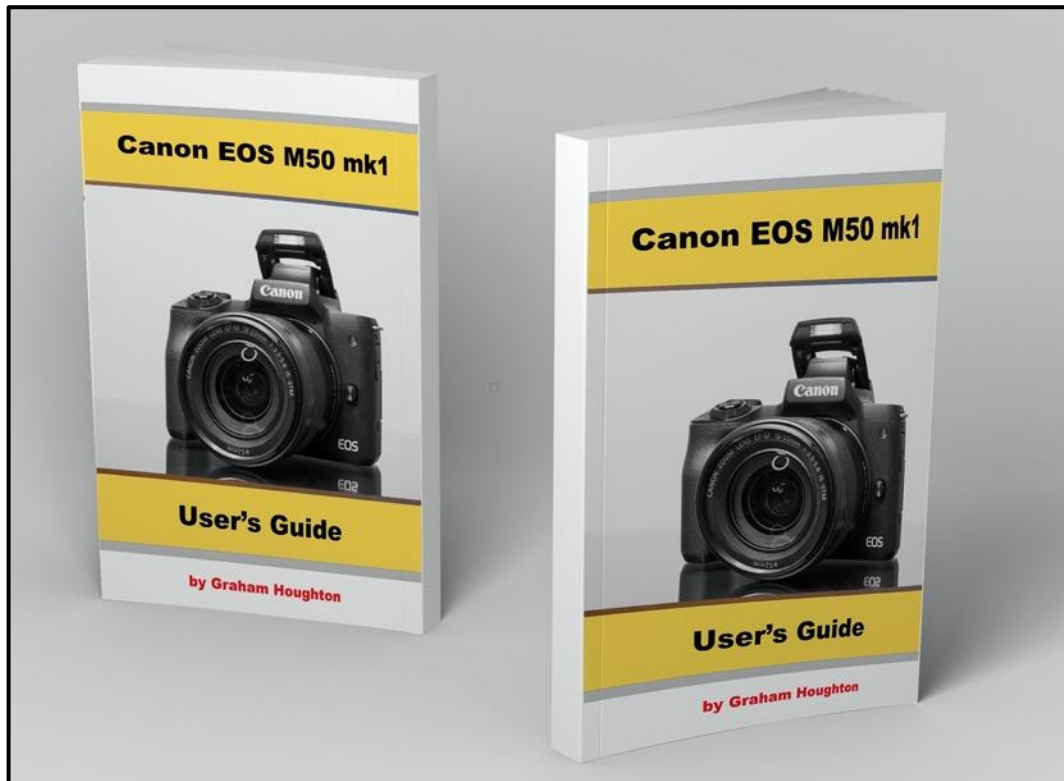

A close up using the Raynox 150 lens on the G7X-Mk3

Without teleconverter

With Olympus x1.4 teleconverter

Quite impressive results and adds to the opportunity to use these cameras more creatively.

I had promised myself to write the Canon EOS M50 mk1 user's guide some time ago but with so many other things going on last year I just never got around to starting it.

Although there are several guides out there already I don't think that there is one which covers many of the aspects that I like to include in my books. The reasons for using certain controls, under what circumstances to make adjustment to these controls and of course some photo science.

I'm hoping to get it complete by May and I am well underway with shooting all the illustrations a have the first couple of chapters completed. It's a long process but one that I will complete!

Photography on a Budget – New YouTube series

I've just started a new series looking at some budget options to buying camera equipment to help budding photographers get started in this exciting hobby Link to first episode

A couple of images from the first episode captured with the 11 year old FZ150 that I picked up on Ebay for £38.

By understanding the limitations of these cameras it is still possible to get some outstanding images and to learn more about photography than just clicking the shutter button on a smartphone.

In part 2 I'll be looking at a Travel zoom camera and a 3 megapixel camera from 2005 and show you what can still be achieved with these cameras. Later I'll be looking at accessories like tripods, filters and flash units that can help you create some great images.

Of course there are some associated risks in buying second-hand cameras especially from sites like Ebay as there are some unscrupulous traders on their who exaggerate the claims or don't fully disclose any issues with cameras. I bought a camera- sold for spares only as I just wanted the LCD screen- that stated occasionally does not power up! Imagine my anger at finding that this camera must have spent some time under sea water as all the insides were totally corroded! Ebay found in favour of the seller as the camera was advertised as not working! I didn't get my money back!

Look carefully at the sellers pictures. If the case/ EVF housing/lens housing shows lots of dust it's a sign that it has not been looked after. If you see signs of wear on the camera base plate, on the sides of the camera or dents and dings then this may be a sign of mistreatment. Don't be afraid to ask questions like does it come from a smoke free/pet free home. I bought another camera that wreaked of cigarette smoke and took weeks of cleaning to reduce it!

Watch out for expressions like – selling on behalf of my father but I don't know anything about this camera – possibly it has problems! If the seller accepts returns then this might be an indication that they are quite genuine and may be trusted to advertise exactly the condition of the camera.

Old lenses should be especially checked for dust and especially fungus as they could be rendered useless with this.

Another of equipment source might be the Amazon warehouse where products have been returned. Sometimes the product packaging is missing or damaged but even new items can be picked up with significant discounts.

Another Look At Some Free Photo Editing Programs

Another significant cost to anyone starting photography is the cost of owning a photo or video editing program that allows a little more adjustment than just the basics of brightness/contrast/saturation and sharpening. Whilst several of the basic editing programs that are bundled with pc's or MacBook's perform well at a basic level you will soon realise the need for a little extra control. Even some of the smartphone apps now feature lots of possibility for photo/video editing and if you have a large enough tablet you can manage quite well with these devices. I'll be looking at these in a later edition of my "Photography on a Budget" YouTube series that is just starting.

The choice of programs can be limited by your operating system. Some programs are designed that will only work on Windows® or Mac OS® however there are a few that will work "cross-platform".

There's also a growing number of editing programs that are "cloud" based – that is to say the editing program resides on a server on the WWW and you image is edited there and then the result is either saved in a cloud account or sent back to your PC.

Whether you trust your image being stored on someone's server is another question – I prefer the option to have the editing done in the cloud, as it doesn't incur a large program stored on my computer, and have the image sent back to my pc.


The first program is the GIMP which is available for Windows PC and Mac OS. This program has been around for quite a while and is maintained by volunteers

GIMP is an acronym for GNU Image Manipulation Program. It is a freely distributed program for such tasks as photo retouching, image composition and image authoring.

The user interface does take some time to learn as a lot of the usual editing features like sharpening are buried in menus that don't initially look as though they relate to the operation.

For example highlight/shadows is under Colours menu.
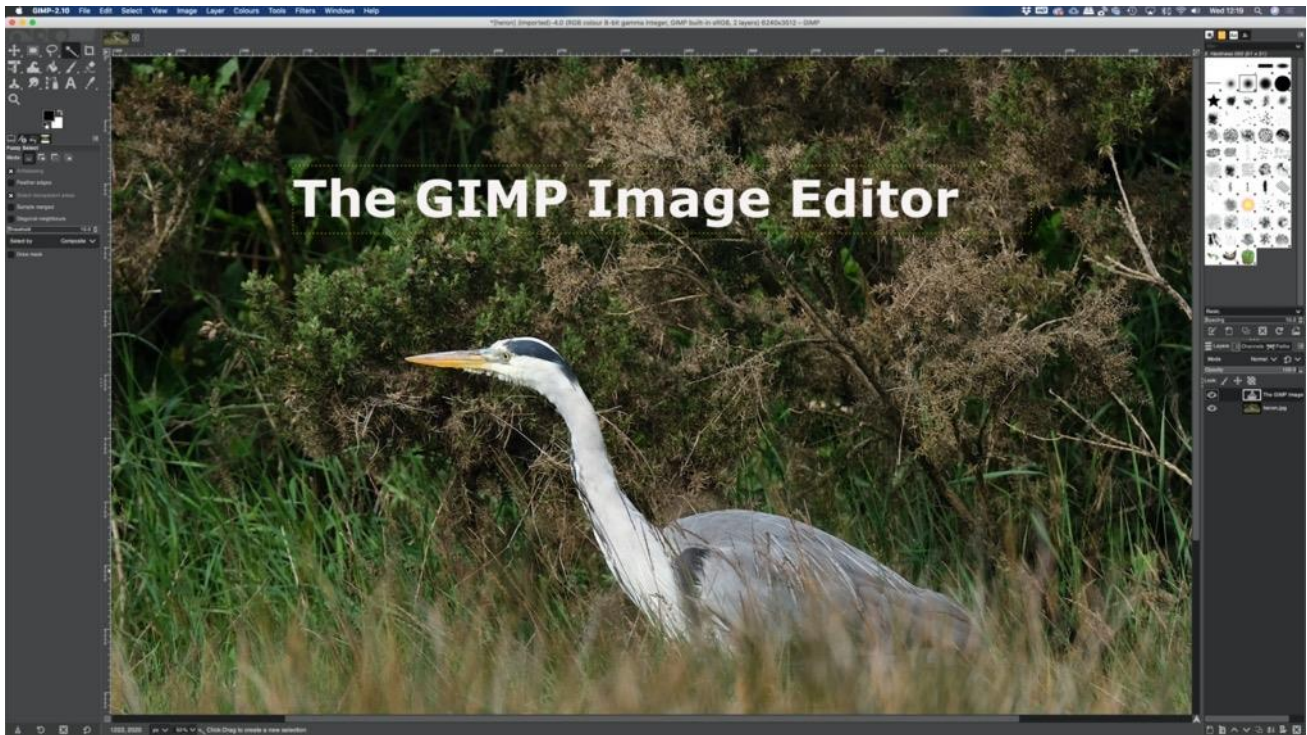
It is quite a well features image editing program and supports layers and masks as well as many tools for text and graphics to be applied to the images for illustrations etc.

The next program is referred to as SAAS. SAAS stands for software as a service and is a relatively new term, especially for image editors.

Pixlr

Pixlr image editor is a Photoshop-like application for image editing. The most striking difference is that this is an SAAS software. It's basically an application that runs in the cloud, this offers several advantages for the software developer and the user. Since the software isn't using the processing power of your computer, but runs on processing power in in the cloud, there are no problems with hardware compatibility. For the software developer, pirating is of course not possible since the application isn't running on your computer!

You'll always need to use a browser to access Pixlr. Your browser of choice should be Google Chrome as they offer as Google offers the most open sourced infrastructure. This is in fact the opposite of how Adobe Creative Cloud works where Adobe want you to store your data in the cloud and use an application on your computer . Instead, Pixlr will store your images on your computer and the processing happens in the cloud.

There are 2 versions of the software:

Pixlr X is more easy to use for beginners and for quick edits. It's easy to master and features lots of artistic effect pre-sets.

Pixlr E is a more powerful image editor for professionals. The interface looks a lot like photoshop with all the pro tools that you would expect.

Pixlr has a large number of tools that will help you professionally process your images. There are many easy effects available straight from the interface. It's also possible to create graphics for advertisements, social media, logos and business cards. You don't need an ultrafast processor and vast amounts of memory either. You can use it straight in your browser, and your licence is valid on any computer. *The major disadvantage is the Pixlr only works with JPEGS and does not support RAW, TIFF and DNG's.*

For the new user, the user interface again can be confusing. Some of the functions can be difficult to understand if you don't have a background in Photoshop or similar software. But there is also a positive side in that Pixlr allows a beginner the chance to experiment with advanced functions. Many of these only available in premium graphics software.

Overall, I would recommend Pixlr to anyone who wants a cloud-based editing tool. It's not as refined or feature rich as the more expensive desktop applications like photoshop, but you can use it from anywhere, on any computer and at much lower cost!

Pixlr Image Editing Program (cloud based!)
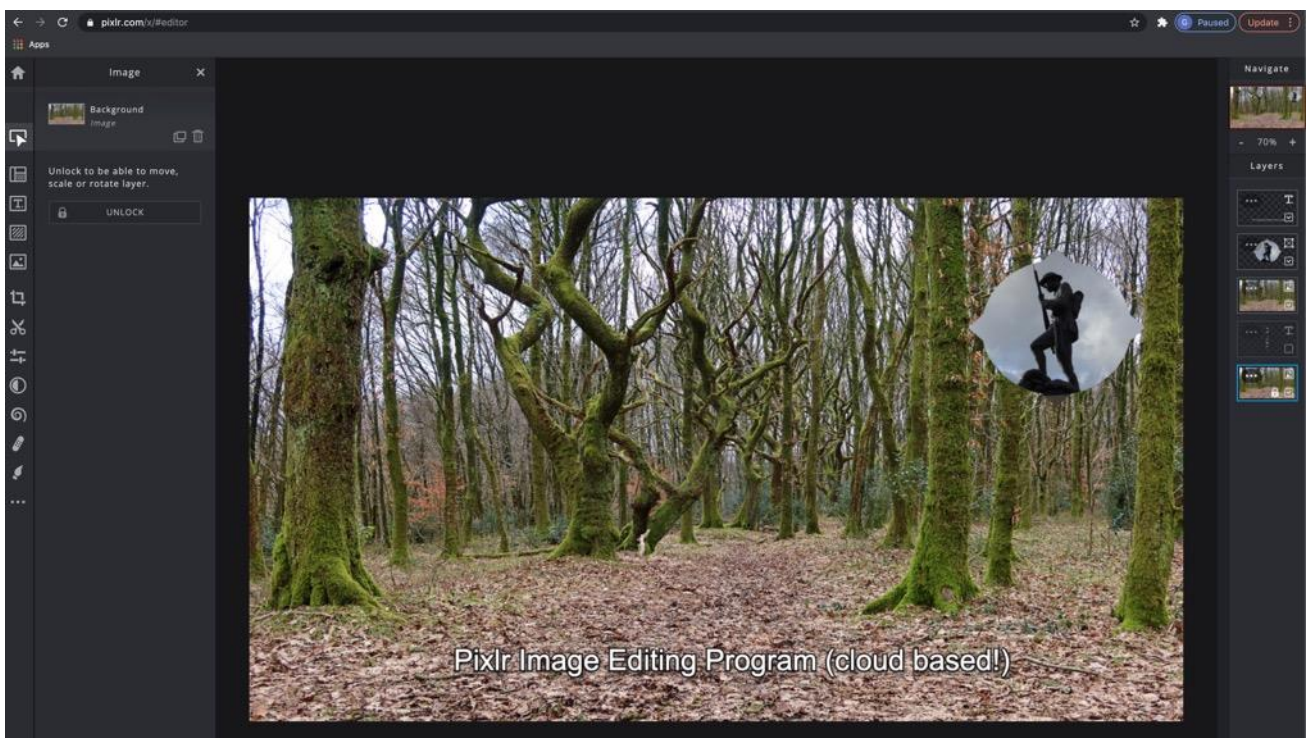
To try the basic program click this link

The next program is a MAC OS version only for RAW file editing

Iridient Developer 3.5.1 is an advanced RAW image conversion application for Mac OS X. This RAW developer is known for its superior de-mosaicing of Fujifilm X-TRANS2 files, but offer support for over 800 other cameras. It's available as a demo but you can use screen shots for most uses! Saved files are watermarked This version is a major update with new features and improvements including new RAW processing algorithms, sharpening methods and noise reduction methods.

RAW Processing

All RAW images require de-mosaicing to render them into a viewable format. This process reconstructs a full-colour image from the incomplete colour samples registered by your camera's image sensor.

The Iridient manual has some interesting information on this if you'd like to know more, so I'm not going to go into this here. Suffice to say that there are different de-mosaicing techniques that, depending on your image, will render better output results. Also different sensors, like X-Trans vs. Bayer, require different development techniques.

One of the interesting thing about a dedicated RAW developer like this is that it offers different developing techniques for all supported sensors. This variety means you'll be able to get the most out of your images. Now the results will vary greatly depending on the type of image (portrait, landscape, architecture,…) and are often quite subtle.


Iridient user interface

A screenshot hi-resolution image

Although this is a demo version you can use my hack of using a screen copy to get hi-resolution images as the saved images will be watermarked!

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The user interface is fairly easy to understand although some adjustments do take a while to execute thus slowing down the process – though we are dealing with very large files here! Link to demo version

RawTherapee is a powerful, cross-platform RAW photo processing system, released as Free Software (GPLv3). It is designed for developing RAW files from a broad range of digital cameras and targeted at users ranging from enthusiast newcomers who wish to broaden their understanding of how digital imaging works to professional photographers.
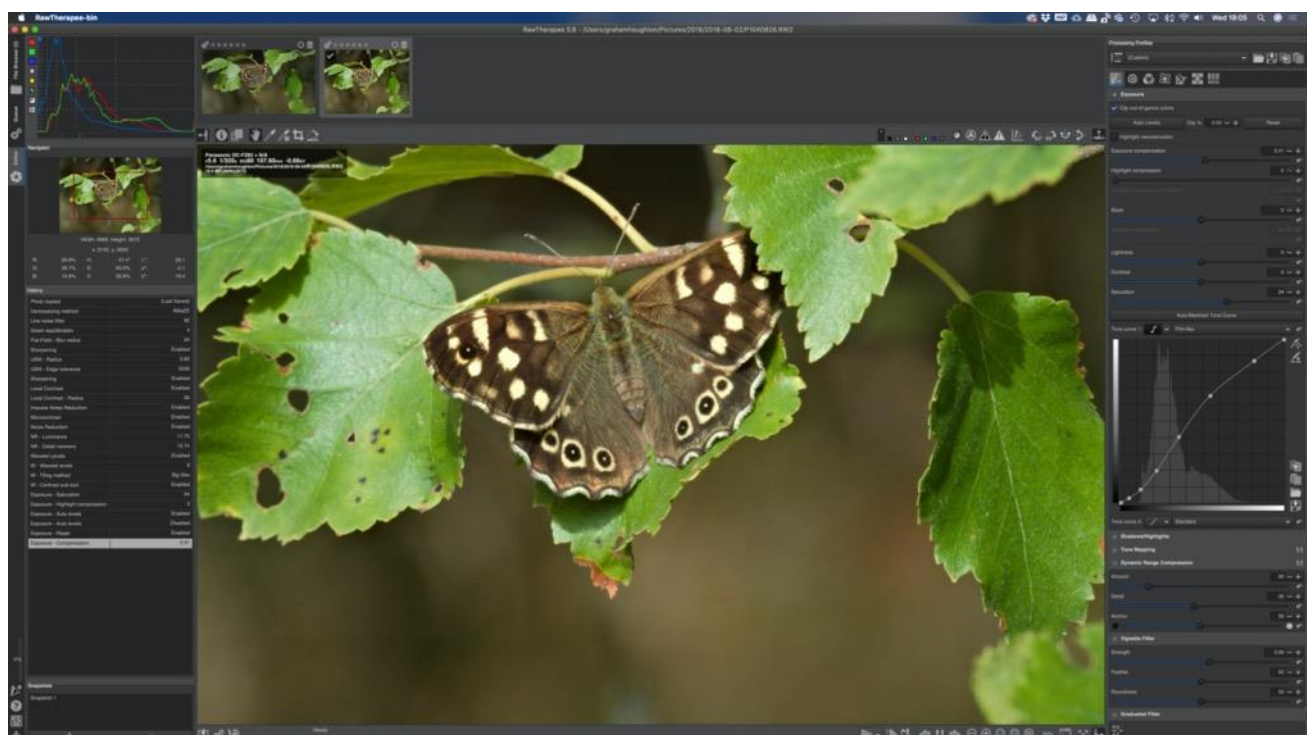

The RAWTHERAPEE interface

RAWtherapee, like DARKTABLE is another cross-platform editor designed for advanced users.

There are many very detailed tutorials about RAWtherapee on the WWW and it is perhaps one of the most adaptive RAW file processors out there – If you know what you are doing.

Other sources of "free image editors" Programs like Canons Digital Photo Professional (DPP4), Fujifilm's/Sony's version of Capture One lite and Olympus Workspace are available for free download. However they do require a serial number to register them. It doesn't appear that there is any validation check apart from ensuring the serial number is within an acceptable range nor does it appear that there is any check on the number of times that a serial number is registered. With a little browser search you can easily find images of target camera base plates including serial numbers! ☞

These programs are normally used to process RAW files for those specific cameras but a lot of the features can be used to edit JPEG images from any source as well.
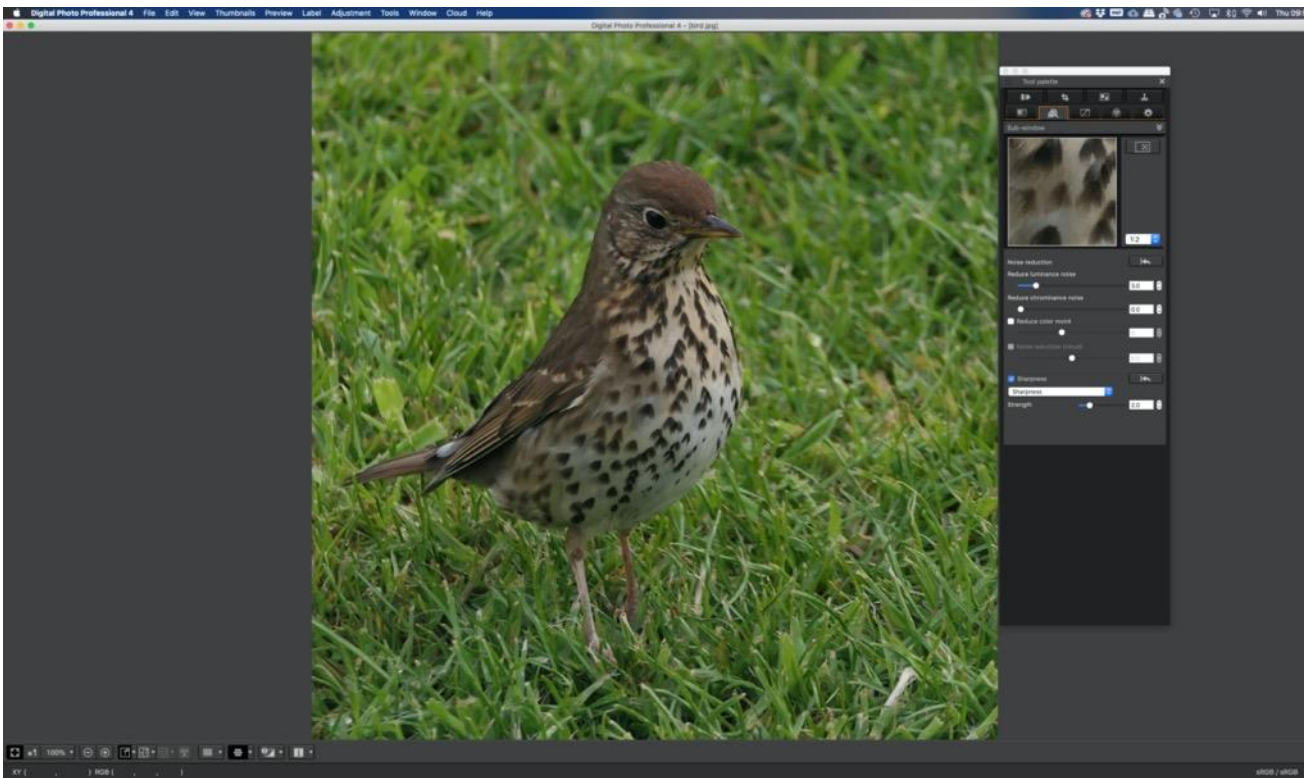
Sharpening and noise reduction in Canon's DPP4
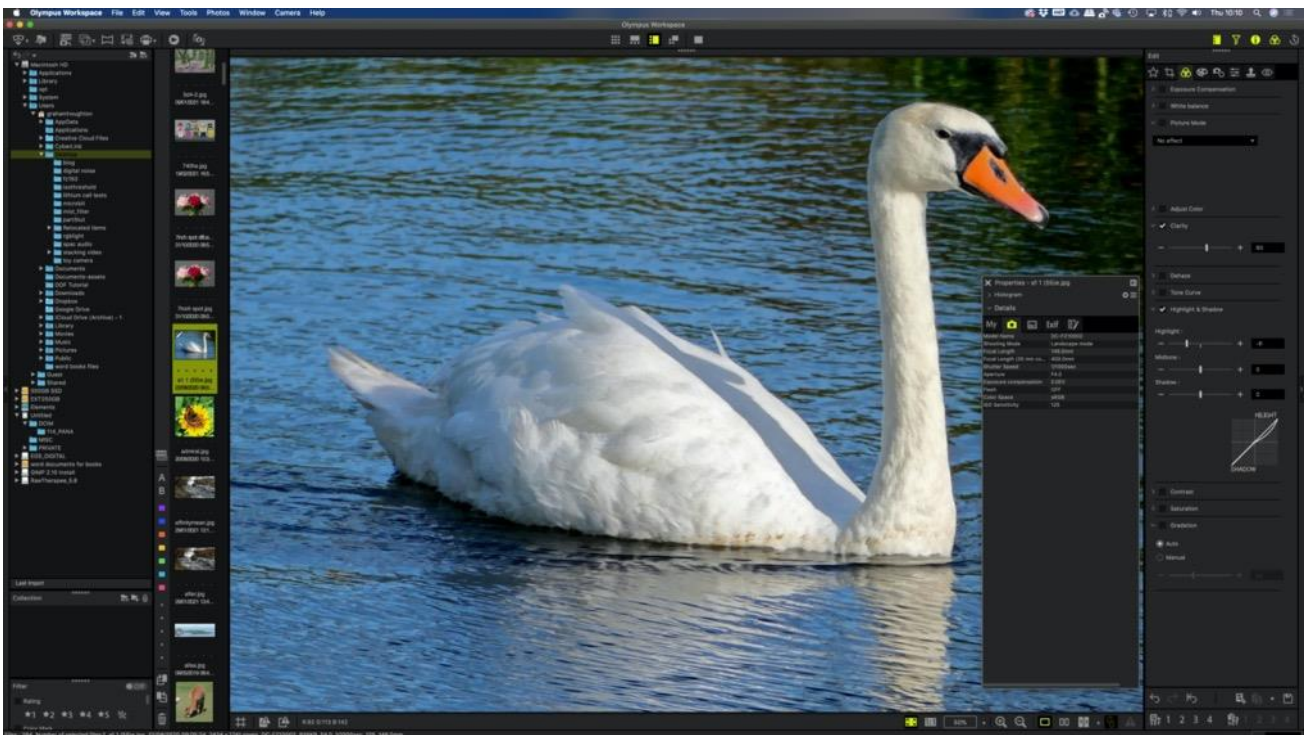
Editing Panasonic image in Olympus Workspace

So if you just want basic editing of your JPEG images or use the cloning tool then these supposedly camera specific software tools are quite viable alternatives.

My own preference is the PIXLR E version as it does allow some interesting graphical overlays to be added to your images.

Befunky

Some unusual edits can be made with another SAAS program Befunky.com

Whilst a lot of the features are only unlocked with a subscription (quite expensive per year) some of the free controls can be used to create some simple graphics that you might be able to use.

In my illustration I used a picture of a bunch of flowers applied an overlay of the cat shape and then added the text layer.

Basic controls such as crop/resize/exposure/sharpen/blur/soften/soften edges are accessible to allow a whole range of basic edits.

Fixthephoto.com is another SAAS program that has a lot of Photoshop like adjustment tools

Main features of Photo Pea (fixthephoto)
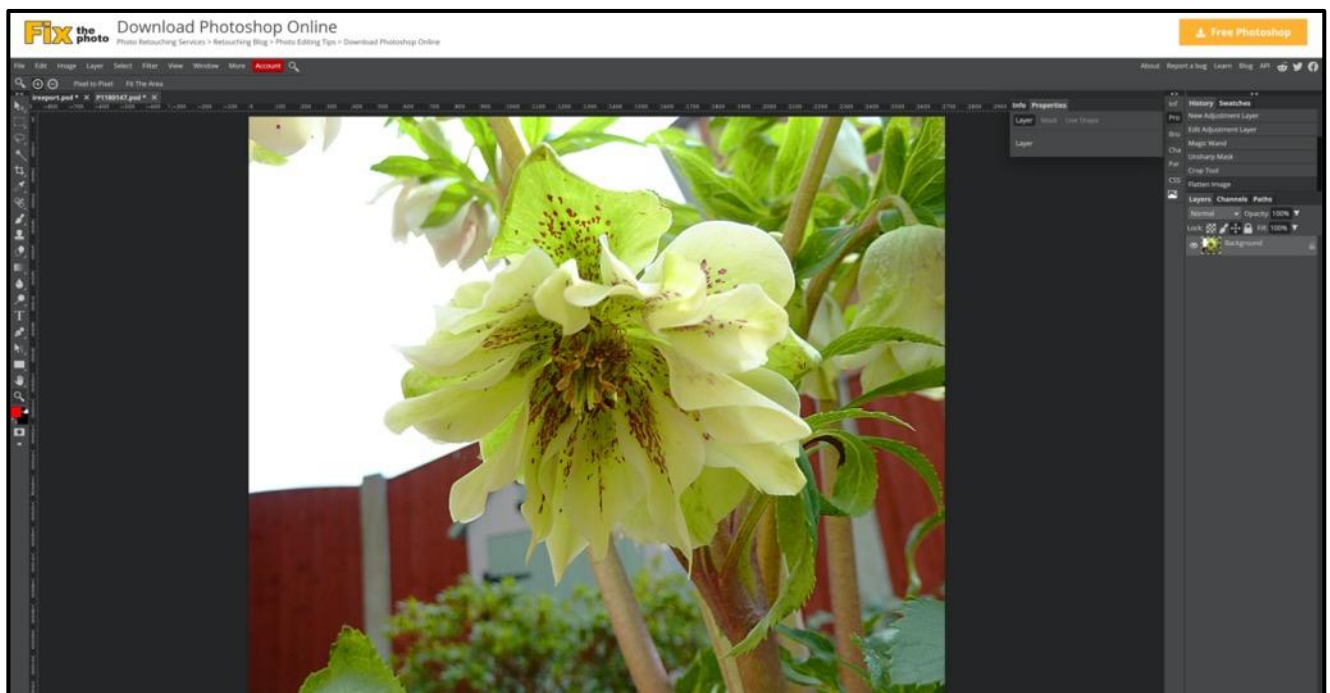
Layers - to split images into several parts

Layer masks - just generally useful

Blend modes - specifying, how layers "combine" with each other

Brush - there must be a way to change the colour of pixels

Selections - choosing, which pixels of layer you want to edit

Procedural adjustments - changing brightness, hue, saturation, convolutions (blur, sharpening ...) etc.

The full features of [this application](#) which is almost as good as Photoshop supporting both layers and masks and being a SAAS application loads very quickly for those quick edits that you might like to perform.

My final offering is [Canva Free](#) where you can design graphics, short video clips and other designs

I bought the Panasonic Lumix TZ10/ZS7 from Ebay a while ago now and I think that it was £45

This is a 12M sensor and was the last of the TZ range to allow adjustment to the picture styles. Here you could adjust noise reduction and sharpness to improve the out of camera images. Keep to ISO 80/100 and you can still get great images with this x12 zoom travel zoom camera. It will feature in my next Photography on a budget series.

Sony QX10 Lens Camera

The Sony QX10 is officially called a "lens-sensor module", and it's designed to be the perfect partner for your smartphone, rather than a standalone device. Essentially, the QX10 comprises an image sensor and a lens, but doesn't have a screen, instead relying on being paired to your smartphone via a wi-fi connection to compose and review images and change settings via Sony's PlayMemories (now called Imaging Edge Mobile) app.

The QX10's 10x zoom lens features Optical "SteadyShot" stabilisation and 18.2 megapixel image sensor can shoot down to 20 Lux. It also features 1080P video. It was also available as the 1 inch sensor version the QX100.

I bought mine back in 2014 as a camera that I wanted to fit to a camera crane that I built. This was to reduce the counterbalance weights that I would need to carry with the complete rig. It was an interesting concept that Sony wanted to lure unsatisfied smartphone camera users away from.

Whilst it does work and produce good images the set up time for an occasional shot is about 15 seconds.

You can use it hand held without using the camera as a viewfinder for the occasional shot and you can get this device into positions that traditional cameras won't fit to get some dramatic images and video.

I'm also going to use this in the Photography on a budget series to show the potential use. Both Kodak and Vivitar made copies of this design but they both suffered a longer shutter lag time than the original Sony.

Well that's it for this month. Having had a wisdom and adjacent tooth extracted I'm not exactly "at one" with the world at the moment. Can't really settle to anything.

Until next month stay safe and enjoy your photography.

Graham