

Without a proper workflow when doing digital photographing, the quality of your images won't improve. When all the elements of your photography come together, then you can get the best out of your work. I'll explain how! For those who think that the term, "work-flow", just arrived with digital photography, I have to say you're wrong. Workflow was just as important before digital imaging caught on—when film and developing photographs on paper were the *in* thing. Only when all the different processes of photography come together

correctly, can you bring out the best from your images.

After you have captured the pictures, you need to store them securely—the sooner, the better. The underwater photographer seldom works in a practical studio environment, but usually under much more extreme conditions, such as dive

boats and tent camps. Therefore, it is of outmost importance that a proper workflow already kicks in here, even without a reliable energy source available—starting with your choice of memory card.

It doesn't matter what format you are working in (JPEG, Tiff or RAW), or which resolution you are using. The storage de-



# Workflow

vice or memory card should be able to hold at least 200 images. This is sufficient for up to three dives per day. Thus, you can avoid opening your camera housing to change the memory card on a sandy beach or on a rolling boat deck. At the end of the day, you have ample time to transfer your images from the camera memory card over to your computer or other storage devices.

### Data storage

The next stage in the workflow is the storage of data. We have many options to store our images. Laptops, CD burners or portable harddrives, or so-called portable storage devices. The best choice would be a portable storage device,

either powered by a charger or by batteries. If you have a portable storage device that can hold 80 Gigabytes, you can store images from one week of diving without any problem. Some portable storage device models, like the Coolwalker MSV-01 from Nikon (about 360 Euro for 30 GB) or the Epson P 2000 (about 430 Euro for 40 GB)

also have displays, which allow you to see the images and to process them.

Additionally, you should carry back-up memory cards. You can keep all the originals and change to fresh cards whenever one is full, or you could go for the more expensive option, a laptop. With a computer you can also view your images and start editing them. With a CD burner at hand, you can also give away some nice memories to your diving buddies.

## Digital workflow

The digital workflow is actually nothing else than keeping your images safe and to retain the colour fidelity—even if you have to transfer the images from one device to another, or from one kind of software to another. Only when the colorspace corresponds, will your images appear in with the natural colours.

## TIPS:

Always get a memory card with plenty of storage space. Just remember that not all cameras can use memory cards which are larger than 1 GB. Read the camera manual before you purchase cards.

Using a large card not only allow you to store a large quantity of images, but also make multiple dives without having to open the housing. Where ever you are, on a boat or on a beach, opening the camera housing is always connected to some risk.



The short shutter lag your camera utilizes is of no use if your memory card isn't fast enough. Hence, look for high speed cards. But these kind of pricey cards only make sense if you have a high quality camera.

> Always keep a back-up of your images, either on a memory card or on a harddrive.

Make sure that all data from the cards are stored elsewhere before you format the card.

Always carry at least one of your storage devices in your hand luggage. X-Ray machines at airports, however old they are, don't affect digital images.

Always keep your computer monitors calibrated, as they change over time. The older your screen, the more often you need to calibrate.

Calibrate your screen in a room with dimmed lights, so that other light sources don't cause false optical interference.

All image processing with a computer except the RAWformat, makes you loose quality. It is always better to get the right light and colours when you take the shot, instead of stressing the image by computer processing.

Every time you save a ipeg image, the image deteriorates. Always save the original image as a TIFF, and you can save as many copies asyou want without diminishing the image.

As the camera, all your other hardware (computer and monitor) should be of equal quality.





www.seacam.com



Calibration unit. There are now some quite affordable models around





It shouldn't matter if your image is published as a photoprint or on a magazine spread. On simpler compact digital cameras, colorspace is already pre-adjusted. On highquality cameras, you can adjust the colorspace manually.

The RGB colorspace is a limited colour matrix and ideal for web images and for the html standard. For anything else, you need a complete colour matrix, because you always have to process the images in a RGB/Adobe colour profile, which is optimized for printing.

You need to be careful when working in picture editing systems as some systems just add a preset colour profile to your images, if you don't manually choose the correct one. To avoid this, have a look at the preset profiles, and if possible, choose the same profile which is integrated into the camera. The same goes for printing.

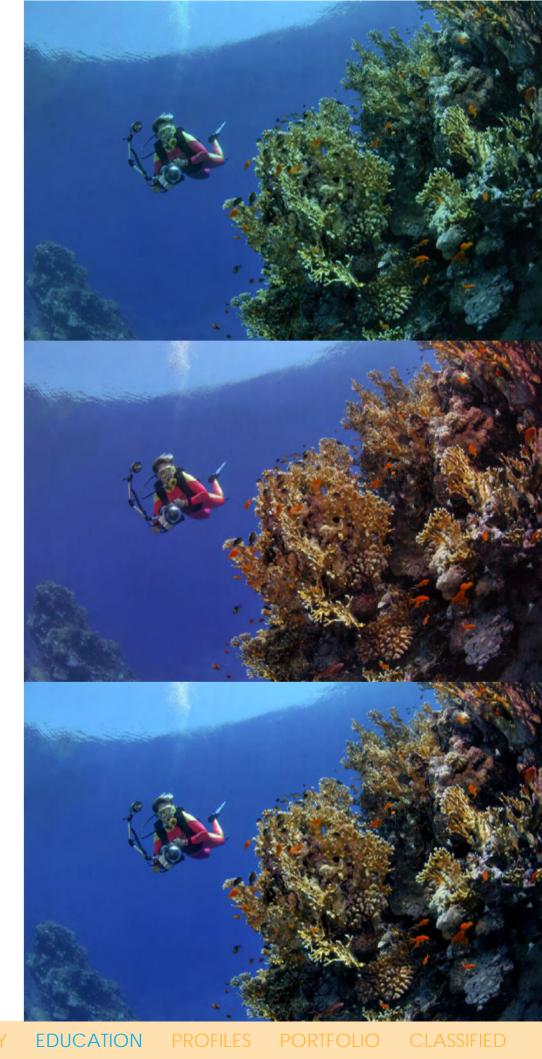
### Calibration

An another important part of your workflow is the screen, where you view your images. Most screens are well calibrated and show the real colours. But if you want to process images you need to calibrate your screen.

Software like Photoshop and Photoshop Elements from Adobe contains a "Gamma" program that let's you calibrate your screen. Even better and more accurate is a colour management device like Eye One from Gretag Mcbeth.

As the colour profile on computer screens regularely change, you should calibrate your screen monthly. The expense for a good functional, secure and colour proof workflow, can seem a bit lavish. On the other hand, getting the best out of your images always pays off.

For more information, please visit: www.photosub.com





Universal housing

Sealux' universal lightweight housing with a large (3.6") integrated high-resolution 16:9 colour monitor is depth rated to 90 m. The overall dimensions have been minimized but will fit all Canon camcorders equipped with a LANCsocket or IR for remote control. Camera dimensions must not exceed 190 x 132 x 116mm. (I x wxh). Up to ten functions can be operated via the handle.

**Sealux** UNM 190 C

Aquatica proudly presents...

www.sealux.de

Aquatica latest addition is the housing for the 21.1 megapixel Canon 1DS mark III. Machined from solid aluminum, treated and anodized to military specification, then painted with a robust weather and wear resistant finish, this housing is depth rated at 90m (300 ft). The Aquatica 1DS Mk III uses a viewfinder that derives the biggest and the brightest image possible in full frame viewing to your eye. An accessory Aqua View Finder is also available giving the user unparallel viewing of the camera's viewfinder for sharp focusing and exact composition. Positive bayonet mounting and locking leaves no doubt that your ports are secure in place and water tight. The bayonet system dome, macro ports and extension rings, offers the fastest access to lenses for rapid changing without having to remove the SLR from the hous-

ing. Allows use of lenses from a 15mm fisheye lens to a 180mm macro lens. Tele-converter

port extensions are also available.

Molded of clear polycarbonate to provide seamless construction and corrosion proof performance. This "Clearly Superior" design provides full view of the camcorder, control functions, and back "O" ring seal for assurance the system is safe. Maximum operating depth is 200 feet (60 m). The camera's LCD monitor can be viewed from the rear of the housing using the External Mirror featured on the side of the housing. The housing includes Image Reversing Circuitry. The circuitry "flips" the image in the camera's LCD so that its reflection in the mirror appears correct left-to-right.\* The External Mirror is hinged to fold against the housing side for travel. www.ikelite.com

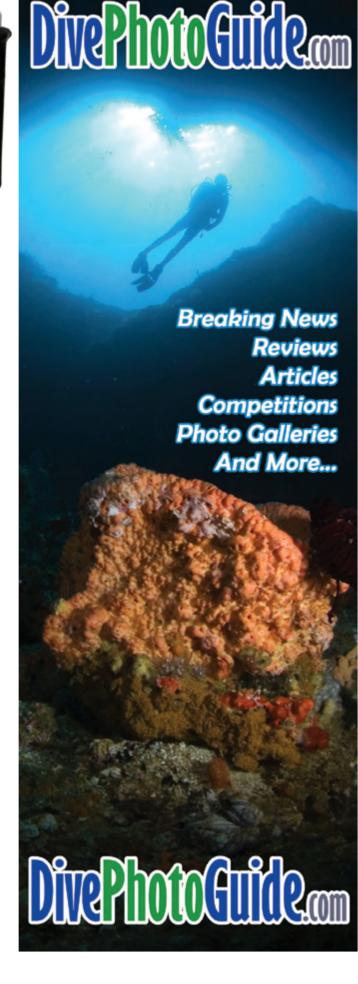
**Ikelite housing for Sony** 

Video Cameras



Adobe has released Camera Raw 4.4.1 and Lightroom 1.4.1, having corrected the faults with the previously withdrawn updates. The revised updates, as well as fixing a selection of bugs, bring support for the latest DSLRs from Canon, Sony, Pentax and Nikon, along with the FujiFilm \$100fs and Olympus SP-570 UZ.

Aquatica has announced that the Nikon D60 camera also fits perfectly into the Aquatica D40x housing. Aquatica is not sure at this time if the housing will retain its original name or be renamed to reflect this new compatibility.





**United Kingdom** 

# Ocean Optics and Mavericks Diving Move to **Action Underwater Studios in Essex**

The move will provide the underwater photography and diving specialists with access to Action Underwater Studios unique filming tank. The 10 x 12 metre tank is six metres deep.



According to Steve Warren, owner of Ocean Optics and Mavericks Diving: "Sharing Action **Underwater Studios** facilities means that we

can provide our underwater photography equipment clients with a basic in-water camera familiarisation session at the time of purchase. We're also consulting with underwater photography guru, Martin Edge, on constructing a dedicated underwater set to meet the needs of wide angle and other specialised underwater photography courses. Ocean Visions has already signed up to run underwater photography courses at the tank."

Ocean Optics - Mavericks Diving also teaches NAUI scuba courses and BTSI (Buoyancy System Training Inc) precision buoyancy clinics. "Our NAUI instructors use radiophones that allow them to coach students by voice under the water. For teaching complex skills, like underwater photography or buoyancy control, being able to talk to the student is highly effective and makes time in the tank far more productive. We think we may be the only UK dive school that offers this service," explains Steve.

Steve and Mark will also be hosting regular tank sessions for qualified divers to jump in and keep their skills up to date. A two-hour session including air, tank and weights is GB£35.00. A Simulaid mannequin is available for practicing rescue skills including lifts and in-water resuscitation. Other equipment diver's can try include commercial band masks and, of course, a selection of Inon lenses and strobes for compact underwater cameras.

Action Underwater Studios, located at Archers Fields, Basildon, is equipped with classrooms, individual changing rooms with showers, and free car parking. The studio is associated with the filming of the "Star Wars", "Bourne", "Bond" and "Harry Potter" blockbusters.

## Apple Releases Aperture 2.1 with Powerful Image Éditing Plug-In Architecture

Available as a free software update, Aperture 2.1, introduces an open plug-in architecture allowina photographers to use specialized third party imaging software right from within Aperture. Over the coming months, third party software developers will deliver image editing plug-ins for localized editing, filters and effects, noise analysis and reduction, fisheye lens correction and more. By clicking on one or more images within Aperture, users can choose from a menu of installed plug-ins and apply specialized imaging operations to either TIFF or RAW images. Apple is working closely with key developers to bring the most requested plug-ins to Aperture such as Nik Software's Viveza, PictureCode's

Noise Ninja, Digital Film Tools' Power Stroke and The Tiffen Compa-



ny's Dfx. www.apple.com/aperture

## **Kodak Professional Image Enhancement** Plug-Ins

Kodak has launched new versions of its professional image retouching plug-ins range compatible with the latest software. V2.1 of the ROC Pro, SHO Pro, GEM Pro and GEM Airbrush Pro plua-ins are compatible with Windows Vista, Intelbased Macs and Adobe Photoshop CS3. Trial versions are available from the company's website, with discounts available to customers buying more than one plug-in.



pivots

# Sanvo Cab

Sanvo has unveiled the newest addition to its Xacti underwater digital camera line with the CA8. The camera is rated for underwater use at a maximum depth of nearly five feet and one hour safely and will shoot 60fps MPEG-4 video at 640x480-pixel resolution or 3264x2448-pixel photos via its 8-megapixel CMOS sensor. Sanyo's pixelinterpolation technology allows bumping up the photos to an equivalent 12 megapixel.

www.sanyo.com



Subals 45° viewfinder

