



Edited by  
Daniel Beecham  
& Jason Heller

# Photo & Videography

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Sony produce filters under their own name using UR-PRO optics, these are designed specifically to fit their own housings.



UR-Pro CY and GR Colour Corrective filters, these can be fitted to the outside of a housing, and removed underwater so you can see what effect the filter is having on your images.

# Performing Magic with Filters

*When using the Magic Filter, its important that you set your white balance, and adjust it every time you change depth, to ensure accurate colour reproduction.*

As any underwater photographer knows, the key to successful images is the reproduction of vivid and life-like colours. Colour corrective filters are a popular method for capturing colour using only available light. Using filters is a liberating way to shoot, with only your camera and housing it's a lot easier to move through the water, you do not need to worry about setting flash powers, the placement of your strobes, or the risk of backscatter. It also significantly reduces your equipment costs, and the amount of gear you need to travel with.

Filters in underwater photography are nothing new, but with the advent of digital still cameras, filter photography has gained popularity, and photographers are developing new techniques to produce images that simply were not possible before. In the past, when filters were used with slide film in underwater photography, inaccurate results were often produced, but the ability for digital cameras to fine tune colour balance has changed all that.

UR-PRO filters have been popular on compact cameras because they can be mounted to the outside of a camera housing, can be removed if not needed and can be used at the same time as an external wide angle lens. Some video camera housings have a built in filter-drawer, leaving the filter easily accessible in case its needed, or easily removed if the shooter chooses not to use it.

## Types

There are a couple of different types of URPRO available. The original CY filter has an effective range of around 5-20 metres, and is designed for use in blue water. There are now a couple of other different models available, includ-

ing one for use in shallow water, and one for use in green water. Last year, a brand new type of filter was released. The 'Magic Filter' was developed by British photographer Alex Mustard and has been adopted as an essential piece of kit by many leading

underwater photographers. The Magic Filter has really changed things, exploiting the ability for digital cameras to fine-tune white balance, some of the images that photographers are creating with this new technology, are really unique.



The standard grey card has a 18% reflectancy (middle). This is the golden standard which lightmeters are calibrated against and white balanced measured



Here you can see the difference between a filtered and an unfiltered image. The unfiltered image lacks colour and contrast, but add the filter, and the image comes to life, showing you the true colours of the subject.

What makes the Magic Filter so special is that it has not been designed to provide optical correction for seawater, but instead to produce a colour balance that cameras own white balance can correct. This means that you can use the Magic Filter over a large depth range; from the surface down to around 15 metres, and generate photographs with colour that penetrates much deeper into the image.

**Using the Magic Filter**  
Understanding white balance, and how to successfully calibrate



# Photo & Videography

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Underwater Photo & Video



your white balance is key to developing your filter photography. For a long time now, video cameras have had the ability to manually white balance, and so filters have been used in underwater video for a long time. Many experienced underwater cinematographers have one the internal Neutral Density filters in their Digi-Beta or High-Definition cameras removed, and replaced with an underwater filter.

When using the Magic Filter, its important that you set your white balance, and adjust it every time you change depth, to ensure accurate colour reproduction. To set your white balance, either

manually white balance off your subject (ensuring it fills the frame) or white balance off a grey card, again ensuring it fills most (70% or more) of the frame. Its important to become familiar with setting your white balance so that you can quickly set it, and get shooting!

## Technique

Because filters work by removing light, you may be forced to use slower shutter speeds than you normally would, so remember to concentrate on keeping your camera steady to get sharp images. If you find you're shutter speed is dropping too low you

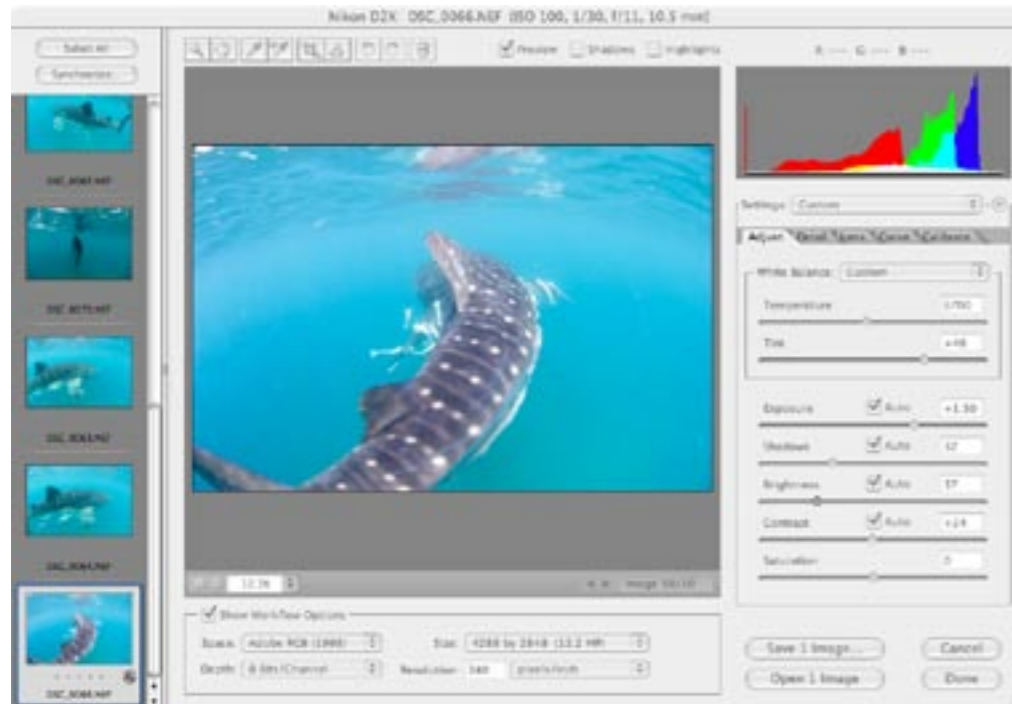
may need to up your ISO, many digital cameras perform excellently at 200 or 400 ISO, get to know your camera and the quality of the images at different ISO settings, so you'll get to know how far you can push the ISO without losing quality.

Like shooting underwater video, it's also important to shoot WITH the light when using filters, so have the sun to your back. It's also important to try and keep a downward angle, which will give you with even lighting.

## Post-processing

Its possible to shoot images that you will be able to use straight of your camera, but sometimes it may be worth performing slight adjustments to get the best you're your images. It's also worth bearing in mind that you can perform RAW conversions using software such as Photoshop to play with settings including white balance. As a general rule it best to try and get your white balance set during the dive, but when this is not possible, if you're in a rush to capture a subject, bear in mind that you will be able to set it later.

Performing Raw adjustments in programs such as photo-shop allows you to set you white balance after the dive, in the event that you don't have time to set the white balance, or your white balance is inaccurate.



# WETPIXEL.COM

digital imaging for divers

Filter photography allows you to cast aside you strobes, arms and sync cords, and just dive with your camera and housing.

## The Limitations

It's important to keep in mind the limitations of filter photography; bright sunny conditions are always required, so obviously filters won't work at night! Also, the effectiveness of filters is very dependent on your depth. Any filter will have an optimum working depth, so be

sure the subject you're planning to photograph will fit within this depth, if not you may need to re-think your subject, or your photographic approach!

The development of new technologies continues to revolutionize the way we shoot our underwater images, and the cost underwater camera systems has made underwater photography available to everyone. With the development and refinement of techniques for filter photography, it's easier than ever to get images you can be proud of.



Colour corrective filters are available in a range of different grades and sizes, so there should be one to fit your housing.

# H<sub>2</sub>O PHOTO PROS

Underwater Photo & Video

*Due to technical difficulties in our recent switch to our new dedicated server two weeks ago, our contact page was malfunctioning. We have since resolved this issue and apologize for any inconvenience this may have caused.*

## Welcome to the Future of Underwater Imaging







# photography news

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**Cleaning?** Delkin Devices, Inc., makers of high quality digital photography products and accessories, today announced the SensorScope™ System, for cleaning digital SLR image sensors. The SensorScope's use of magnification and focused, high intensity light enables camera owners to inspect their camera's sensor to see if it needs cleaning. Why risk damaging your camera - don't clean your sensor if it doesn't need it! [www.delkin.com](http://www.delkin.com)

## Corel upgrade

Corel has released a free update to Paint Shop Pro Photo XI which extends Corel's support for camera raw formats, including a significant improvement in the quality of imported raw images, enhanced support for IPTC metadata, and support for additional camera models (Nikon D200, Sony DSC-F828, and Sony DSC-V3). Corel will continue to add support for new models in future updates of Paint Shop Pro

Photo XI. This update also features enhanced performance in many areas of the program, especially in the organizer and thumbnail generation features. Many issues have been fixed including saving 16-bit images as TIFF files, support

for transparency when saving PNG files, retention of EXIF data when files are duplicated, and problems moving floating text. This free update is recommended for all current users. It is available for download at [www.corel.com/support](http://www.corel.com/support).



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## Three new houses for Canon 400D



**SEALUX CC400.** The most important of a housing is the viewfinder, according to Sealux. Chose between the inexpen-

sive LD viewfinder that gives a good overview over image and camera data, or Sealux' special brilliant GD (grand) viewfinder that offers a spectacular viewfinder image. [www.sealux.de](http://www.sealux.de)

**Hugyfot's HFC 400D** is very ergonomic allowing for one hand photography and is depth rated down to 100 meters. The housings are CNC milled out of solid blocks of aluminium. [www.hugyfot.com](http://www.hugyfot.com)



**Sea&Sea's DX-400D** underwater housing for the Canon EOS 400D/Digital Rebel XT is made from a combination of corrosion resistant aluminum alloy and polycarbonate. Depth-rated to 180 feet, the housing also includes a 3 pin N-type connector (for attaching a YS-series strobe); a A TTL converter; a leak sensor; and a 0.66x view finder. [www.seaandsea.com](http://www.seaandsea.com)



**Inon house for Canon**  
Inon's new X-2 series DSLR housings, for Canon EOS20D and 30D cameras, comes with three user interchangeable viewfinder options, including the 45 degree Viewfinder. Each housing is equipped with two fiber optic sync connectors, supporting four directly connected strobes, each capable of S-TTL operation. The housing is supported with a multi-coated optical glass port system, with Magnetic Rotary System (MRS) manual focusing possible on some models. [www.inonamerica.com](http://www.inonamerica.com)

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**DivePhotoGuide.com**



DivePhotoGuide.com is the newest resource for underwater photographers, videographers, and serious divers.

Sign up for a FREE membership today! (use promo code "XRAY")

## Photoshop CS3 - beta

Adobe has released a beta version of Adobe Photoshop CS3. Probably the most significant point in this release is the fact that it is a universal binary version allowing it to run on Mac's with the new Intel chip, and and at the same time not forgetting about their Windows customers by supporting XP and Vista. Adobe says this is to allow a smoother transition to newer hardware platforms, namely the Mac. The free beta can be downloaded at Adobe's Web site by any user with a valid Creative Suite 2 or Photoshop CS2 serial number. <http://labs.adobe.com/>

Adobe Photoshop

CS3 beta

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Welcome to the Future of Photography  
For more information, please visit: [www.h2ophotopros.com](http://www.h2ophotopros.com)







Michael AW Mathieu Meur



Scuba Seraya, Tulamben, Bali

## A 'Master Class with Michael Aw and Mathieu Meur The New Essential Digital Download

Seraya Resort Bali; 11 to 17 August

Digital Downloads are workshop and shoot out competitions organized for divers who desire to improve their skill in underwater digital photography. Michael AW has now refined the concept to take the event to a new level. Providing the workshop with modular course structure, participants will be able to achieve certification and acquire skills that are beyond just taking a technically correct photograph. The emphasis is to help aspiring photographers to compose and 'paint' a picture with a camera, using

Some of the principal modules are: Photographic Etiquette & Conservation issues, Exposure Techniques, Beyond Basic Techniques, Macro / Wide Angle Techniques, Elements to Successful Composition, How to Shoot for Competition, How to shoot with Models, How to get published, and advanced lighting Techniques to Post Processing – Photoshop & Printing Techniques.

Digital Download includes daily lesson modules on the techniques of successful Underwater Photography, from the basics of lighting, to advanced composition and essential elements of post editing using Photoshop and various tested software to create multi-media presentations. Though the program schedule allows for maximum shooting time, the lesson modules, formal and informal critique sessions ensure participants with essential techniques to acquire publishable images.

Further info: [www.michaelaw.com](http://www.michaelaw.com)



## Rumors of the Canon EOS 40D

HipTechBlog.com reported the following recently: "Whoopsy! Looks like someone over at Canon Hong Kong exposed a little secret of theirs by showing a link on their website pointing to an EOS 40D. The page has since been taken down. Hardly surprising to fellow shutterbugs though, as the EOS 30D has been out for almost a year. Of course, we can't predict the feature set. But let me guess... 10-megapixel? Anti-dust technology? DIGIC III image processor? Larger viewfinder magnification? 2.5-inch LCD? Let us see how accurate this is when it eventually gets announced."



SEA & SEA DX-5D Recall  
SEA&SEA has become aware of an issue with the DX-5D housing. To be precise, the multi-selector assembly components of the DX-5D housing might fixate or possibly allow minor flooding of the housing through the component o-ring seals. If you have purchased, sold or are in possession of DX-5D housing(s) in the following serial number range, discontinue

use and please follow the steps for return of the housing immediately to the Sea&Sea Service Center-SAC. Product: DX-5D Housing for Canon 5D (SS-06119) Serial Number Range: 055000002 - 055000174 Part for Replacement: Multi selector assembly Return Procedure: Have available the following: 1) Your name, shipping address, daytime telephone 2) Serial number(s) of housing(s) for retrofit 3) Completed Service Form (attached) for each housing 4) Please contact Sea&Sea at 562-498-3708 ext. 223 or [seaandsea@tusa.com](mailto:seaandsea@tusa.com) for issuance of a shipping call tag.

[www.seaandsea.jp](http://www.seaandsea.jp)

## Wetpixel Bahamas Sharks/Dolphins Expeditions, July 2007

Wetpixel is running two charters to the Bahamas this coming July, 2007!

The first trip (July 10-21, 2007) is a trip in search of oceanic white-tip sharks; On this 11-day expedition, we'll focus on photographing oceanic white-tip sharks, with other sharks (and dolphins, if there is demand) as secondary subjects. This year, we'll go directly to where we found them last year, which will hopefully save a few days of looking.

\$4,000 per person (\$1,000 deposit due immediately + \$3,000 due April 10, 2007) 2 spots left. Refund only if spot replaced. Guide: Jim Abernethy. Photography Expertise: Eric Cheng, Tony Wu, Alex Mustard

The second (July 23-31, 2007) is a "classic" tigers and dolphins trip, which combines a traditional shark expedition with dolphin experiences and beautiful summer weather. This trip became fully booked as this issue went to press.



Want to know more? [wetpixel.com](http://wetpixel.com)

Interested? Click here to contact Eric Cheng)



## Photoevent Calendar

by Jason Heller



[DivePhotoGuide.com](http://DivePhotoGuide.com)

February and March Competition Deadlines [www.divephotoguide.com](http://www.divephotoguide.com)

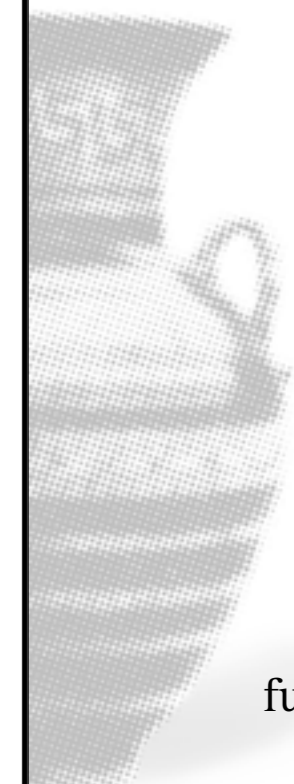
Feb 1st Underwater Images 2007 (USA) <http://uwimages.org/2007>

Feb 28 Oz Tek '07 Photo Competition (AUS) [www.diveoztek.com](http://www.diveoztek.com)

Mar 15 2007 Scuba Diving Magazine Photo Contest (US) [www.scubadiving.com/photocontest](http://www.scubadiving.com/photocontest)

Mar 30 Shell Wildlife of the Year Competition (UK) [www.nhm.ac.uk/](http://www.nhm.ac.uk/)

Mar 30 Suunto Underwater Photo Competition <http://www.suunto.com>



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