Heinrichs Weikamp Nikon iTTL Converter

by Mark Webster

It's funny how things turn full circle – they say that fashion repeats itself and I suppose it must be true of certain trends in photography, particularly underwater photography. My first steps with underwater photography were with Nikonos II's and III's followed by Nikon F's and F2's. These cameras were of course entirely manual, without even light metering, unless you had a photomic head for the F2a or a Sekonic marine meter for your Nikonos, and of course flash exposure was calculated via guide numbers followed by an anxious wait for your film to be developed. Then Nikon introduced TTL flash control with the F3 and the Nikonos V (there had been a brief flirtation with auto flash and the Nikonos IV but this was not a resounding success) and our lives changed – we could confidently expect predictably good flash exposures, especially in macro, and concentrate more on composition. The even better news was that the TTL protocol remain unchanged for many years right up until the final generations of film cameras, so we could use the same flashguns with each camera upgrade.

Then the digital day dawned and with it a completely new TTL protocol which (with the exception of the Fuji S2) did not communicate with our flashguns. So we came back to basics making our flash exposures manually once more, only now we could see success or failure immediately on the review screen. One feature our flashguns required though were multiple manual power settings to adjust the exposure, particularly with the high base ISO's that cameras like the D100 came with. This was a concern for me as I wanted to continue to use my trusty Inon Quad flash which only had three power settings and of course, as it is mounted on the end of the port, would always be close to the subject. I got around this by using the Light and Motion Titan housing with the ROC system which gave me the flexibility of 12 power settings for any 'Nikonos TTL' flashgun. I eventually upgraded to the D200 which has a base ISO of 100 and so did not present such a great problem, although I rarely shoot with the Quad above 1/4 power.

And so at last to the purpose of this review! I am again on the upgrade path , most likely the D300 which has returned to a base ISO of 200 – although it does offer a ISO100 'slow' setting, this is apparently does compromise image quality a little. The flashgun market has also moved on and now we can buy amphibious guns with iTTL and eTTL circuitry to give us that perfect exposure and, for those of us with a shelf full of older 'Nikonos' protocol TTL flashguns, there are also converters available from Heinrichs Weikamp, Sea & Sea, Athena and Ikelite. Although these converters may not work with all flashgun models the added attraction of them is the manual control they offer which effectively extends the number of power settings available on an older flashgun.

The Heinrichs Weikamp Nikon iTTL Converter is relatively compact (compared to the competition) and connects in line with your strobe. To use two strobes you will need a dual cable.

A couple of years ago I bought a TTL converter from Heinrichs Weikamp for my wife's Olympus PT30 housing which has been a great success, so when our illustrious editor offered to let me trial his new external iTTL converter I jumped at the chance. This unit is relatively compact

The Heinrichs Weikamp Nikon iTTL Converter installed on my Inon Quad flash and Subal ND20. Older flashguns like this will not communicate in iTTL but can be controlled on MTTL via the camera's exposure compensation dial. This extends the range of manual power settings significantly – down to 1/32 power at -5EV.

Leopard spotted goby. Nikon D200, Subal ND20, 105mm micro, Inon Quad flash, Heinrichs Weikamp Nikon iTTL Converter, ISO200 f16 1/60

Limacia clavigera nudibranch. Nikon D200, Subal ND20, 105mm micro, Inon Quad flash, Inon wet lens, Heinrichs Weikamp Nikon iTTL Converter, ISO200 f22 1/60

and connects in line between the flashgun and the housing converting a wide variety of 'Nikonos' flashguns to work effectively with the D40, D50, D80, D200, D300, D2X etc., but not the older D100 which uses the older dTTL system. The unit can be used with two matched flashguns with the addition of a dual synch lead, but you should check the website for a full list of compatible flashguns and cameras.

First the converter must be charged via a USB lead from your computer. Having done this check the comprehensive manual to see if you need to change the unit settings for your flashgun – there is a small board of eight micro dip switches which must be configured before you close the unit for use. When you switch on the flash and the camera there is a small green LED that flashes to indicate that the two are communicating and you are then ready to go.

My local marine studio is a chilly 9c at this time of year and I had to wait a couple of days for the strong south west winds to abate before I could make my first of two trials. I have a pair of Subtronic Mini TTL's which are fully compatible which I found gave consistently good exposures through most aperture settings at both ISO 100 and ISO 200 with my D200. Apertures of f4 and wider proved a challenge dependant on the distance to the subject, but his would be common with most TTL guns which would struggle to quench the flash output for a macro shot at a wide aperture.

My second test, and perhaps main objective, was with the Inon Quad flash. Christian Weikamp had told me that the unit 'might' work in TTL with the Quad even though it is listed as not compatible on their

Velvet swimming crab. Nikon D200, Subal ND20, 105mm micro, Inon Quad flash, Heinrichs Weikamp Nikon iTTL Converter, ISO200 f16 1/60

website. However, I was quickly disappointed on this score as the Quad would fire only on the pre-flash signal and thus leave me with a blank review screen. All was not lost of course, as the unit can be configured to control the gun in 'manual TTL'. A flick of a dip switch and setting the camera to rear curtain synch now gave me control of the flash output through the exposure compensation settings on the camera – very neat! You have to use the camera in manual mode for this to work, but it gives very flexible control of the flash power in fractions of a stop all the way down to -5EV which is the equivalent of 1/32 power. So I was back to manual exposure settings but with a far greater level of control over the flash power. Not as convenient as TTL but it does mean a new lease of life for your older TTL flashguns if you want to continue to use them.

In the final analysis we have to ask ourselves if we need or desire TTL flash control for our digital systems. As with film, TTL is only really reliable in macro or with stand off subjects that fill the frame and provide good reflection of light back to the camera. TTL can be made to work in wide angle if you are careful with your main subject placement, but for the classic wide angle composition with an open blue water background TTL will struggle and often fire the strobes at full power. Personally I have not found it a struggle to get consistently accurate exposures using manual settings and if you are the same then this converter may be an expensive luxury at €350. However, if I follow my upgrade path and find I need one to continue using the Quad flash effectively then for me it will be worth every cent!

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Strobes and water colour

By Alexander Mustard

I expect the title of this article will be causing a bit of head scratching but please bear with me, this is a relatively new concept but one that is well worth consideration. In this article I want to discuss how the colour temperature of our strobes has the potential to affect the background water colour in our digital photographs.

It certainly sounds confusing to begin with. How can firing a strobe that illuminates the subject and not the water alter the water colour? It requires a different way of thinking about colour in images because of the adjustable white balance of digital cameras. Therefore this is a digital issue and not something that is relevant to slide photography.

I should also say that this is an article about subtle differences. Strobe colour temperature does not make day or night differences to images, it is about that final polish. However, it is often those final finishing touches that make the difference between the good and the excellent. To ignore this issue means giving up an important tool that controls water colour in our images.

I first raised this topic in UWP a couple of years ago, back in Issue 31, but I felt it was worth revisiting in detail. The root of this phenomenon is that the various underwater strobes on sale produce light at different colour temperatures and digital cameras have adjustable white balance that reacts to this.

To keep things simple I am going to lump strobes into warm coloured and cool coloured – using my own strobes as examples. My Subtronic strobes are warm or red biased (my Alphas produce light at 4300 K and the newer Midis at 4800 K), while my Inon strobes are cool blue biased (my Z240 produces light at 5500 K).

When you take a picture illuminated by 5500 K or 4300 K light you will need a white balance close to this value to render neutral colours (see Figure 1). This setting is applied to the whole image. In the real world this means that both strobe lit and non-strobe lit areas are affected, and therefore strobe choice can affect the background water colour (see Figure 2). To prove this to yourself, open up one of your own wide angle images in a RAW converter and try moving the colour temperature slider between 4300 K and 5500 K. Ignore the foreground colour and watch how much the water colour changes.

Many factors influence the background water colours of our images, such as conditions and exposures. In this article I want to discuss the importance of strobe choice. Here I used warm Subtronic Alphas, which produce light at 4300 K. This image was processed with a colour temperature in the RAW converter of 4300 K, which rendered a correctly coloured foreground and rich blue background

Figure 1. The colours of these two test images are almost identical. The top image was lit with an Inon Z240 strobe and the lower one with a Subtronic Alpha. The top image required a white balance setting of 5500 K to produce this neutral look. The lower image needed a much lower setting of 4300 K to get the same neutral colours. Different underwater strobes produce light at different colour temperatures and therefore require different white balance settings to produce correct neutral colours. Apologies for the subject matter these were taken during my own tests.

Another way to explain this concept is to compare the similarities and differences between film and digital. On both media the main factors that will control the background colour we get in our photos are environmental conditions (water colour, depth, climatic conditions etc), camera angle, lens and exposure.

On film we have another important factor to consider. Film choice. Certain films are well known to make big differences in the water colour they record. Even within the Kodak stable photographers used to spend much time debating the differences between the true look of Kodachrome blues compared with the rich royal blues that Ektachrome delivered in the same conditions. Stunning blue backgrounds were known as 'Ektachrome blue' for many years.

When shooting slides strobe colour temperature made no difference to the water colour. If we used a warmer strobe then the only effect would be warmer hues in the foreground lit by a strobe. The background would remain unaffected. This was/is a popular technique, with many photographers favouring warm strobes or warm filtered strobes to improve the skin tones of people in their images.

Digital is different. An approximate analogy to film choice is the camera's adjustable white balance. Shooting underwater, a digital camera will try to make the foreground subject appear neutral, deciding on the appropriate white balance setting for each shot based on the colour temperature of the foreground

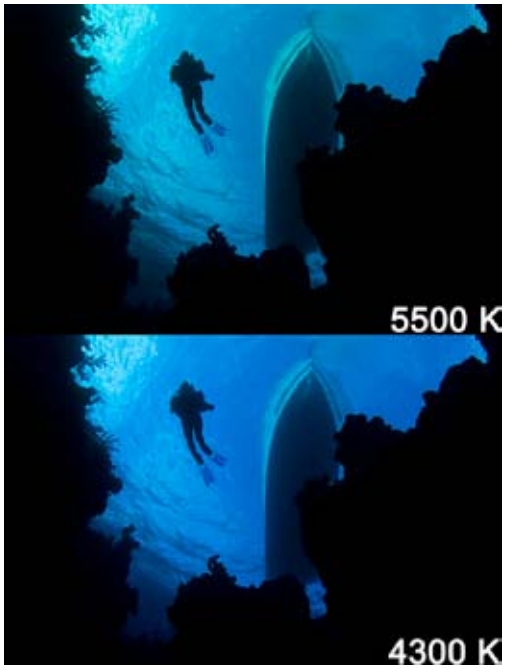

Figure 2. These two available light images are the same shot – simply processed at different white balance values. Compare the blue water colour – the difference is small but is clearly a richer blue in the lower frame. The upper frame is at 5500 K (the value required for the Inon in Figure 1) and the lower frame is at 4300 K (the value required for the Subtronic in Figure 1).

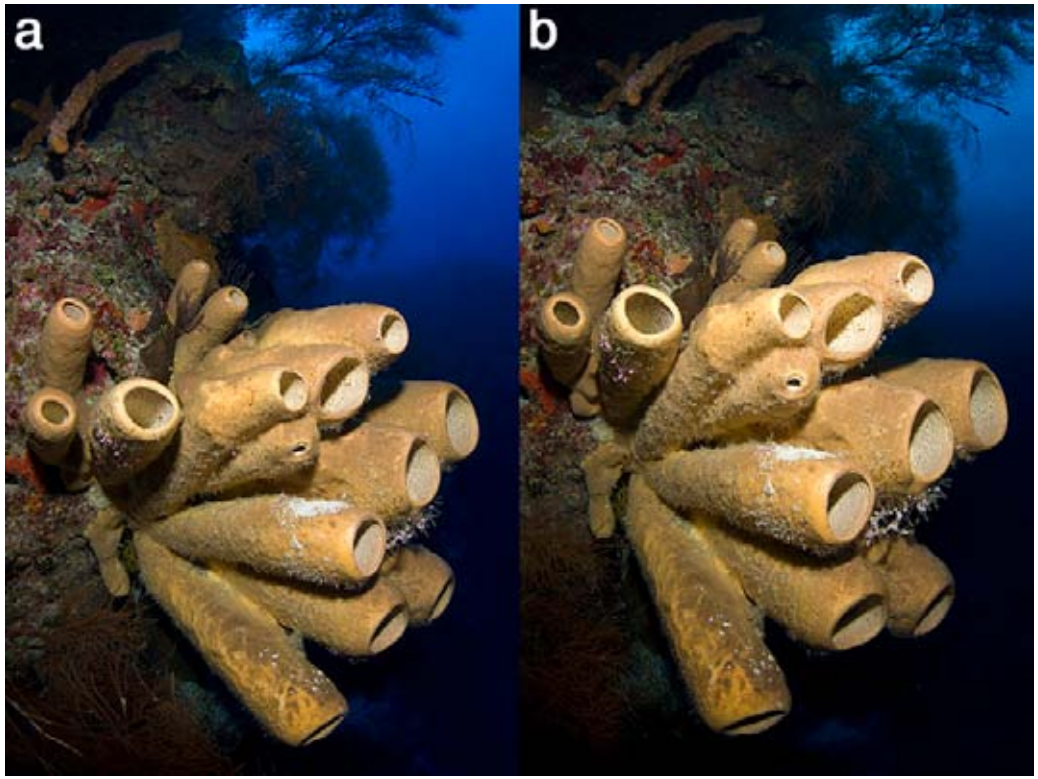

Figure 3. Compare the water colour in these two images that were taken at the same time with the same camera, lens and exposure. Nikon D2X + Tokina 10-17mm @ 10mm. F9 @ 1/50th. Single strobe. The only difference is the strobe used for each. In a) I used a warm light producing Subtronic and for b) I used a cool light producing Inon. If I had taken these images on slide film, both background colours would be the same colour, but the foreground in a) would be warmer coloured than the foreground in b). As these were shot on digital, the white balance is adjusted so that the foreground is correctly coloured and neutral (note that the sand on the sponge is white in both). However the background water colours are noticeably different because of the different white balance settings required. The warm strobe produces a rich blue background, while the cool strobe produces a murkier blue.