

WHERE IN THE WORLD?

CHARLOTTE IRVING takes a look at the diminutive Blue2CAN GPS receiver. Have you ever been asked, "Where did you take that picture?" or even asked yourself where you took a particular photograph?

Doubtless in most instances you will be able to provide some general details about the location and probably some specific information about the location, such as the area of a city, or region within a country but could you pin point the precise position of your camera at the time of the exposure to within a few metres?

Such information can be extremely useful not only for captioning your pictures accurately but also enabling you to find the same location again. So how do you get your Nikon D-SLR camera to record its position as you shoot pictures? Simple, you use the Global Positioning System (GPS)!

GPS, the system of navigational satellites that many people now take for granted due to the proliferation of equipment, including navigation tools for vehicles and vessels, PDA (personal digital assistant) devices, and mobile telephones that can receive information about latitude, longitude, altitude, and date/time, can be used to input the same information to the metadata of digital image files. Metadata is additional information in the image file that does not comprise image data. This technique, which is known as "geotagging" is becoming increasingly popular with photographers, as it serves more than just one purpose. Apart from being able to identify the location from which a photograph was taken the metadata tags containing the GPS information appended to each image file make a very useful search parameter when you want to retrieve a specific image, or set of images from



your archive, because of the highly specific nature of the information.

A number of Nikon D-SLR cameras from the D1-series onwards have the ability to record GPS information, and Nikon introduced the MC-35 adapter cable to enable the connection of compatible GPS receivers via a 9-pin serial port to the 10-pin accessory terminal of the D2-series and later cameras. The disadvantage of this approach is that the GPS device must have a serial port, an interface that is becoming increasingly obsolete, and it involves trailing a two-part cable (the serial cable from the GPS equipment and the MC-35) between the GPS device and camera.

Other solutions exist to allow compatible Nikon cameras to record GPS information but none possess the elegant simplicity, or functional flexibility of the Blue2CAN device from Red Hen Systems. This Lilliputian radio receiver that plugs directly into the 10-pin remote accessory terminal of the D2-series, D200, D300, D700, and D3

cameras, uses Bluetooth technology to connect wirelessly to a wide range of compatible Bluetooth enabled GPS receivers, thus allowing these cameras to record GPS information.

The Blue2CAN is tiny; it measures just 28 x 19 x 13 mm (1.1 x 0.75 x 0.5 ins) [H x W x D] and weighs only 14g (0.5 oz) grams.

Configuration is extremely straightforward. Before starting, Red Hen Systems recommend that the camera should be switched off. Attaching it to the D200 requires just the cap to the camera's 10-pin terminal to be removed, while with the D-2 series, D300, D700, and D3 it is necessary to remove the caps to both the 10-pin terminal and the PC flash sync terminal, as the latter prevents the Blue2CAN seating properly in the former.

The connector on the rear of the Blue2CAN is pressed into the 10-pin terminal until you feel it snap positively into place (a point worth mentioning here is that the fit of the Blue2CAN on the D700 is less than perfect due to the profile of the camera body, while connection is possible the device does not lock into the 10-pin terminal with the same secure fit achieved on the other camera models); for additional physical security there is a lanyard of thin steel wire attached to the Blue2CAN that can be looped through the camera strap D-ring, to prevent loss in the unlikely event that it becomes dislodged from the 10-pin terminal (due to the very small size of the Blue2CAN there is no screw-in collar around the connector, as there is with most Nikon accessories that attach to the 10-pin terminal).

Once fitted to the camera a small red LED on the back of the device illuminates briefly, flashing three times almost immediately after installation to indicate that it is ready to search for a Bluetooth signal. While searching for a signal this LED will flash once approximately every 20 seconds, finally, as soon as it has connected to a GPS device the LED flashes once more.

All Bluetooth devices must go through a "pairing" process initially before they can communicate with another Bluetooth device; think of this as an electronic "handshake" that establishes a dedicated link between the two (note Red Hen Systems warn that the Blue2CAN will not work with GPS receivers that require the input of a PIN code for pairing). Generally, once a "paired" Bluetooth connection is made between a transmitter and receiver it will not allow a second Bluetooth transmitter to connect. Furthermore, Bluetooth operates over a very short range, usually no more than about 10 m (33 feet), so it is important to keep the Blue2CAN in close proximity to the GPS device.

The Blue2CAN draws a small amount of power from the camera battery; Red Hen Systems state a value of 300mA when the device is paired and active. If the camera is switched off the Blue2CAN continues to draw a very small amount of power, according to the company it is about 2.5mA, in order for it to remain paired with the GPS; however, approximately 10 minutes after the camera is switched off the Blue2CAN will also turn itself off to conserve the camera battery.

Compatible Nikon cameras will detect the Blue2CAN automatically. Once the Blue2CAN is paired with a GPS device the "GPS" icon will be displayed, flashing, in the control panel of the camera until the GPS device has locked on to the GPS signal. At this point the "GPS" icon displayed on the camera remains on constantly to indicate GPS information can be recorded. If for any reason the link between the GPS device and the Blue2CAN is lost it only takes a couple of seconds before the camera's "GPS" icon begins to flash as a warning.



The functionality of a specific Nikon camera model differs once a GPS device is connected and receiving a signal; this applies to all GPS devices and is not peculiar to the Blue2CAN itself. In the case of the D2-series and D200 the camera's metering system will remain on constantly, while an active GPS unit is connected, which obviously has a direct impact on the camera's battery performance, so it is advisable to switch the camera off when you are not using it to reduce power drain. In the D300, D700, and D3 models Nikon have refined the menu system and provided an additional option under the GPS item in the [Setup menu] that allows the user to select whether the camera's metering system remains active, or will turn off automatically if no camera functions are performed within a specified period, according to the setting selected for the [Auto meter off] item in the [Custom settings] menu.

Using all three models with this option enabled, so they closed down to their stand-by mode after the delay period had elapsed, it only took a light pressure on the shutter release to re-activate the camera and restore the connection to the Blue2CAN, with the "GPS" icon re-appearing almost instantaneously. However, if the camera is in a stand-by state, and the shutter release is pressed down all the way immediately, the chances are GPS data will not be recorded, so always ensure the "GPS" icon is displayed.

The review sample of the Blue2CAN was supplied with the Lite-in LGSF2000 Bluetooth GPS receiver (there is a list of other compatible GPS devices available on the Red Hen Systems web site). This compact, lightweight device proved to be very efficient and it was often able to maintain a link with the Blue2CAN at ranges up to 15 m (48 feet). Working with the Blue2CAN device is completely straightforward; configuration takes no more than a minute, or so, including attaching it to the camera. Once paired and linked with a GPS device you can begin shooting. Using a hand-held camera, the Blue2CAN is so small and light that it does not intrude on camera handling in any way, while a GPS device, such as the Lite-in LGSF2000 can be slipped in to a pocket. Shooting from a tripod is just as easy, although in this situation I kept the Lite-in LGSF2000 in a small lens pouch hung from a convenient point at the top of one of the tripod's legs.

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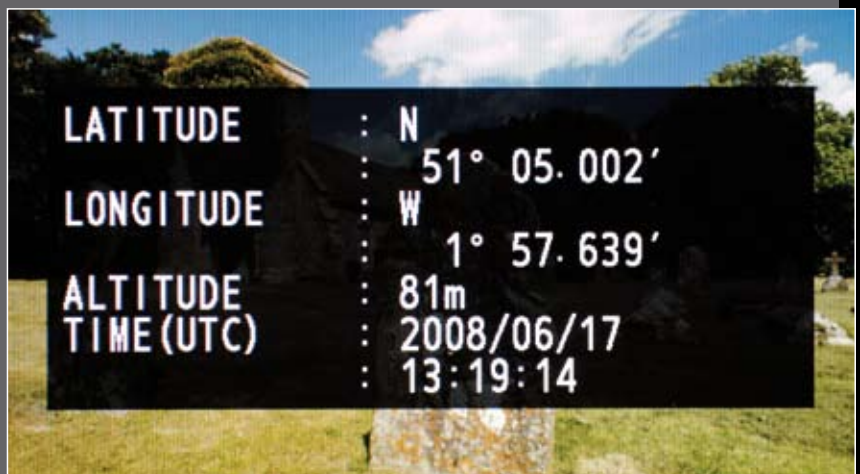
There is just one proverbial fly in the ointment as far as using the Blue2CAN goes and that is it prevents the use of any other Nikon 10-pin remote accessory, such as the MC-30 cable release, since unlike the Nikon MC-35 adapter, the Blue2CAN has no secondary 10-pin terminal. The solution is to shoot a reference picture with the Blue2CAN connected to record the GPS information, and then disconnect it before attaching the cable release to continue shooting. Thereafter you have the option of either just storing the reference picture with the subsequent shots from that location, or making the extra effort to copy the GPS information from the reference picture to the relevant metadata fields of the other pictures.

Geotagging is more than just a distraction for the technically curious photographer; it has important practical applications not only for both map-referencing photographs (most mapping software applications can read the GPS information embedded in standard EXIF fields of an image file and display the camera location accordingly) but also indexing and retrieving pictures within an archive effectively and efficiently using the unique nature of the GPS information. The Blue2CAN costs \$279.00 (U.S.), which is not cheap compared with some standalone GPS devices but it does exactly what it is designed to do with the minimum of fuss and effort on the part of the user, in a very neat and compact package that will not encumber any photographer on the move (remember you will also need a BlueTooth GPS receiver). So, if geotagging is for you, take a close look at the Blue2CAN, as currently you will not find a better solution. ■

For more information visit:
www.redhensystems.com

> THE SHOTS <

- 01: The covers to the 10-pin and PC terminal must be removed on the D300 to fit the Blue2CAN
- 02: The Blue2CAN with Lite-in LGSF2000 BlueTooth GPS receiver
- 03: The compact nature of the Blue2CAN means it does not hinder other camera controls
- 04: The diminutive Blue2CAN shown next to a CompactFlash card for scale



- 01: TOP: GPS data can be used to pin point locations and index an image.
- 02: ABOVE: The GPS information display of the D300.