Any time, any place...

Computer generated imaging has long represented a threat to traditional car photography but, argues Bob Cramblitt, a new program is winning favour with shooters who say it provides new freedoms on a par with the introduction of Photoshop

If you'd told David Burgess 18 months ago that he would consider a 3D computer graphics tool 'brilliant' and able to inspire 'incredible creativity', he might have laughed in your face. An internationally known automotive photographer, he is no Luddite. He was one of the first to go digital and remains an enthusiastic proponent of digital imaging. But he had good reason to resist the long-threatened marriage of photography and 3D computer graphics imagery (CGI).

'I explored CGI, looking into Maya [from Autodesk] and other programs,' he says. 'I found it to be unintuitive and uncreative, the domain of technicians. I didn't want to do the equivalent of going back to university to learn one of the programs.'

New opportunity

A year ago he changed his mind, while working on a shoot for Ford Motor. Jennifer Flake, Ford's director of global brand imaging and design public affairs, wanted to depict the Ford Inceptor in a real-world environment in a series of press shots. The only problem was the car had not yet been built – something Burgess was blissfully unaware of when he arrived in Las Vegas for the shoot.

Burgess and his assistant had to shoot backgrounds at a neon sign graveyard outside Vegas then, using a spherical camera, shoot a series of high-dynamic range images (HDRIs), providing a 360° panorama of the location with complete lighting data. The photographic images and data were then brought back to the hotel, where Burgess used a rendering program from a company called Bunkspeed to merge computer-aided design (CAD) models of the concept car with his just-captured digital files.

Within hours he had created five finished images. The car was fully integrated into the scenery, reflecting the surrounding environment and appropriately placed highlights and shadows. 'It was staggering I could do it so quickly with software I'd never used before,' says Burgess. 'I was able to render the images in hours on a laptop, creating something that might have taken days using a render farm. I had the freedom to be creative and pursue my own style without compromising on quality.'

Burgess isn't alone. Fellow car photographers Michael Lee, Nigel Harniman and Vic Huber have also picked up on the Bunkspeed software, which is marketed under the name HyperShot. They say it warrants a fresh look at how photography can be used with CGI because, unlike traditional programs such as Autodesk Maya and 3ds Max, which were originally intended for creating images and animations from scratch, HyperShot is designed to be used with photographs and HDRI data.

'HyperShot has a simple interface that gets quickly to the fun part of the process for a photographer – lighting,' says Michael Lee, who has shot ads for Honda and Mercedes-Benz, among others. 'The rendering is optimised, so what took me 12 hours with 32 processors can be rendered in two hours at the same or greater quality on a Mac quad-core system.'

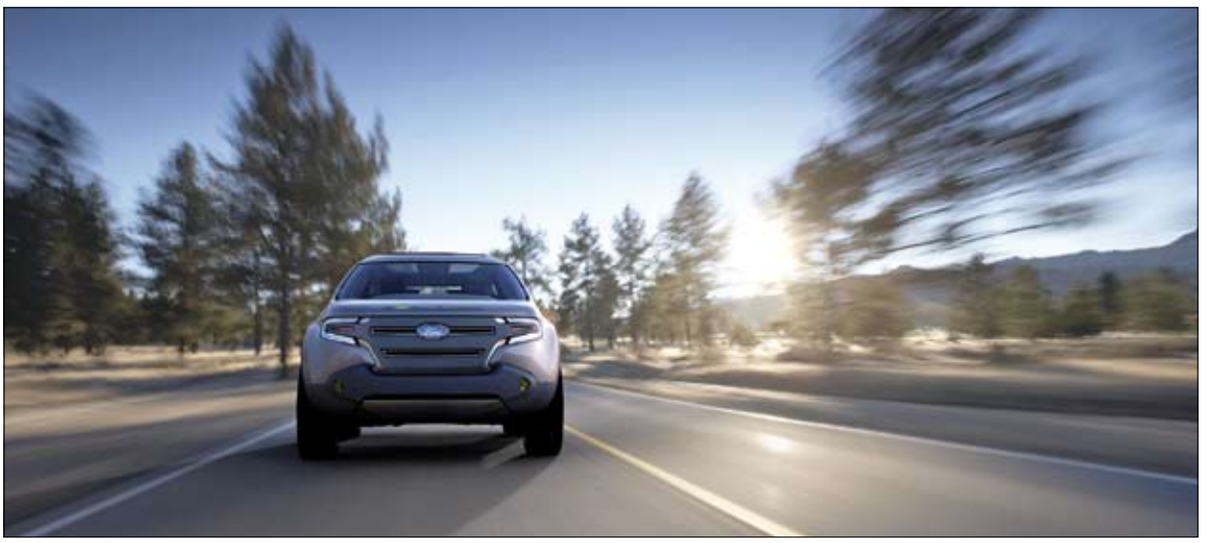
Happy marriage

The result, say Burgess and Lee, is a new marriage of photography and 3D computer graphics. 'You can create pictures that you couldn't conceive of before,' says Burgess. 'You can put the car in any position in almost any type of environment and make it look real.'

Lee agrees: 'It frees you from the limitations of having to do everything behind the camera.

Above: In his first project using Bunkspeed software, David Burgess shot backgrounds at a neon sign graveyard outside Las Vegas and inserted a CAD model of a Ford Interceptor concept car.

This spread: Burgess used Bunkspeed's HyperShot software to place a CAD model of the Ford Explorer America concept car in US location shots.



Top: Burgess also used the new CGI software to insert a Maserati GT Lisbon into a photograph of a race-track.

Above: Photographer Michael Lee used high-dynamic range imaging within HyperShot software to light a photorealistic CAD model of an Audi car.

Traditionally, after shooting you are limited by what you can do in Photoshop. HyperShot allows you to try something different. If you have a good CAD model with a lot of detail, you're only limited by how creative you want to go.'

But it's not all plain sailing. As with any new form of technology, there are perceived, and real, obstacles to HyperShot's adoption. To Burgess and Lee, there are parallels with the adoption of digital imaging six or seven years ago.

'Initially clients freaked out,' says Lee. 'It didn't help that the some of the work of the early digital adopters was substandard, as it has been in the past with CGI. You just have to keep proving that it is a better solution for the client.'

'No one wants to give up what they control,' says Burgess. 'With this new form of CGI, it might be hard to get past the mindset of the technicians who are heavily invested into Maya. It was the same situation with digital photography – early on, reproduction houses put all kinds of obstacles in your way. For three or four years, it was an uphill slog to get

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reproduction houses to work with someone shooting in digital.'

This protectionism can be surmounted: what may prove more troublesome is obtaining good CAD models, essential to this approach. Car manufacturers are often nervous about giving out proprietary design data, and the details required to generate a great image are sometimes absent from the models supplied to photographers. But, says Lee and Burgess, this issue can also be overcome with time. As they point out, CAD users faced similar issues at first, before auto manufacturers realised the time and money that could be saved by using 3D models to drive product development.

The new Photoshop?

Currently around a dozen car manufacturers are using Bunkspeed products and for them, as well as for photographers such as Burgess and Lee, the question isn't when this new marriage will happen, but when others in the industry will realise it's already taken place.

'When I first looked at Bunkspeed, I saw Adobe,' says Burgess. 'In the 1980s, expensive Dicomed workstations were used to create colour digital imagery. Then Adobe came along with software-only tools that could work on standard desktop computers. I see Bunkspeed setting off a similar market shift.' BJP

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