

And the winner is...

The 2006 John Henshall's Chip Shop Award goes to a multi-national team of imaging boffins

Fifteen years ago, when digital imaging was in its infancy, Eastman Kodak's UK boss of Professional Imaging, Tony Eatough, sent me on the imaging trip of a lifetime to Camden, Maine, and Rochester, New York.

One of the courses I attended at Kodak's Center for Creative Imaging in Camden was a class about Colour Science. It was led by a young Israeli, Eran Steinberg, who then worked for EFI (Electronics for Imaging) in San Bruno, California.

Eran Steinberg was working on EFI's revolutionary 'Cachet' Color Editor software, which had imaging filters not to be found in the then current Adobe Photoshop v1.0.

Besides easy to use Exposure, Tone and color Palettes, Cachet had a multi-choice facility later adopted by Photoshop as 'Variations'.

Eran showed me some of the other revolutionary utilities he was then working on, such as a Dust and Scratches filter. When EFI decided to pull out of software, these utilities passed to Adobe Photoshop.

Since then, Eran Steinberg has been one of my major influences in digital imaging. Over the years he has introduced me to many of the key players. His work since EFI has always been at the leading edge and often revolutionary.

When at EPix Imaging in 1996 he produced a digital camera – the EPix Pro – which caused quite a stir when he demonstrated it at a police conference I chaired in Wakefield, Yorkshire.

The camera was able to encrypt images internally, providing an indisputable audit trail to prove that subsequent versions of the images were indeed as photographed.

Any area of an image which had been tampered with was indicated by a flashing highlight. Eran Steinberg demonstrated this by setting up a 'crime scene' with a glove which he then retouched from the image. The situation bore some resemblance to the then recent O J Simpson case.

When the software compared the

retouched image with the original encrypted camera file, the tampering was immediately apparent. Case closed.

Since then Eran Steinberg has gone on to even more impressive technology in his role as CEO of FotoNation.

FotoNation is a company which leads the digital imaging industry in the development of in-camera technology.

The company has its core R&D centre in Galway, where it employs twenty five people, and a further eleven engineers in Bucharest, Romania.

Over the past three years I have witnessed FotoNation's quite tremendous impact on the evolution of the digital photography industry.

In 2003 the company released its patented in-camera red-eye removal solution which has been incorporated into the firmware of cameras produced by such industry giants as Nikon.

If you buy a Nikon CoolPix digital camera, look out for the 'Red-eye by FotoNation' logo on the box. This technology recently won a coveted 2006 European IST prize.

I wrote about this and another FotoNation innovation – automatic dust masking – in *Chip Shop* March 2004.

Those of us who work into the small hours, cloning out dust from images to be submitted to picture libraries, will raise a cheer when this technology is adopted by the leading DSLR manufacturers.

One company which has adopted FotoNation technology in a big way is none other than the mighty Microsoft Corporation.

At Photokina 2004, Microsoft announced that it was adopting FotoNation's wireless connectivity standard, known as PTP/IP (Picture transfer Protocol over Internet Protocol Networks).

PTP/IP is designed to replace a wired USB connection, making a digital camera connected into a wireless local area network behave in a similar way as it would when connected to a computer by USB cable. (*Chip Shop* November 2004.)

The standard developed by FotoNation has now been adopted by CIPA – the Japanese Camera and

Imaging Products Association – and all the other camera manufacturers, including Canon and Kodak.

This kind of industry standardisation allows inter-operability between devices made by every manufacturer of digital cameras and accessories.

I have to pause for a moment to consider just how important this is from a user's point of view.

It means, for example, that we can print wirelessly from a camera from one manufacturer to a printer from another.

At PMA I saw wireless 'shoot and transfer' in the FotoNation booth – the ability to shoot on a wireless-enabled digital camera and have the images immediately transferred wirelessly to a kiosk for printing.

Up and coming new technology from FotoNation includes 'Face Tracker'.

Face Tracker – as its name implies – is an advanced face tracking algorithm embedded in a digital camera's firmware. It uses a radically new approach to identify and lock onto human faces in the camera's preview image, tracking them as they move around within the frame.

Through advanced embedded image processing and analysis, it is able to track faces in various orientations. The algorithm also establishes the correct image orientation automatically.

Faces in an image are usually the priority, yet autofocus can mean that the camera focuses on the background between subjects. FotoNation's Face Tracker ensures that the people in the picture get the optimum focus, exposure and skin tones. And it can do this for multiple faces in the image.

FotoNation does not, however, supply anything you or I can buy directly. Its technology comes to us embedded in the products of other manufacturers. But without FotoNation these products would deliver a much reduced user experience.

FotoNation richly deserves this award for its innovative technology of benefit to the whole digital photographic industry.

Previous John Henshall's Chip Shop articles about FotoNation are available at our online resource

www.epi-centre.com

... FotoNation

headquartered in Silicon Valley with engineers in Galway, Ireland, and Bucharest, Romania



CLOCKWISE FROM LEFT: Eran Steinberg with the DIMA Innovative Product Award, won at PMA Orlando February 2006; FotoNation's booth at PMA 2006; the John Henshall's Chip Shop Award 2006; to be presented to FotoNation at 'The Photographer' Photo Industry Awards on board the 'Tattershall Castle' paddle steamer moored on the River Thames in London.



THE PHOTOGRAPHER

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Chip Shop
Award 2006

WINNER

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R Taylor *John Henshall*

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John Henshall - Contributing Editor Digital

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