Digital **I**maging **G**roup **I**nfo **T**ech

Contents ...

Special Notice

The Annual General Meeting of the RPS Digital Imaging Group will take place at the -

Pump Rooms, Bath.
1400 Hours Saturday 5th April '97.

Photoshop 4 Arrives

Adobe seem to always stay ahead of the game and regardless of incursions from such upstarts as xRes and Live Picture (available for the PC in March) still holds the high ground.

Rather than repeat the reviews published in many magazines I will simply give my first impressions of the best bits, as someone who has used Photoshop since it first arrived on the PC.

The programme arrives on two CD's, the first packed with the programme plus accessories and the second with a quick tour of the programme and tutorials. As usual these are presented in a very American manner and tend to skate over the actions rather too quickly. To the uninitiated I suspect they would be quite daunting. Installation is simplicity itself.

The improvements include 'fly-out' toolbox items which are simpler to use, and a much greater use of the right mouse button which now gives context menus relevant to the tool being used. A great addition.

It is also now possible to record your actions on any particular image and then 'replay' them to replicate the sequence to other files. Similar to that already included in Picture Publisher.

The new guides and grids which will be familiar from drawing programmes such as Corel Draw!

and Illustrator are also useful allowing easy alignment of any element on the page. Particularly useful when photo-compositing multiple regular shaped items or applying text.

The complex rotate, skew, distort controls of Photoshop 3.5 have been replaced by the wonderful 'Free Transform' which allows all of these actions and more in a single selected box. Excellent!

Its main strength however is in its less obvious improvements, which although they are unlikely to be included in a review, make it much easier to use.

My only quibbles are the lack of a multiple undo facility, although there are ways around it, and the fact that they have now included the super Gallery Effects filters which I bought as three separate packages and paid dearly for!!!

Barrie Thomas - Editor.

Digital Portfolio

Having taken early retirement after a 26 year stint in the IT industry, I decided that 1996 would be a good year to attempt an ARPS portfolio. This happened to coincide with my acquisition of a Pentium133 PC (16Mb) with all the bells and whistles I could afford. I started playing with a number of imaging packages and soon caught the dry-darkroom bug. (It sure beats washing and drying the drum after every Ilfochrome print!) Over the years I have built up a collection of

Boscombe Pier - Les Spitz ARPS

Deck Chair - Les Spitz ARPS

35mm transparencies of the Dorset coast. A number of these had been fairly successful in club and inter-club competitions and I had them transferred to Kodak Photo-CD. This was followed by many hours of manipulation - rejection - and more manipulation.

Effects

I found that the effect achieved using some of the filters supplied with CorelPaint and ArcSoft's Photo Studio provided pleasing images. For most of the images, the manipulation started with a "clean-up". This involved getting rid of unwanted rocks, white spots, telegraph poles and even people in the wrong place. Some rather drab anoraks were brightened up with a dab of red. Brightness, tone and contrast were all varied. Then various filters were applied to create the desired end result. Photo Studio has a particularly useful effect - called Splash!

Just as in the darkroom, some sessions on the PC were very productive, producing a pleasing image in an hour or two.

Other images were manipulated many times and took many hours of trial and error (with the emphasis on the latter!) before I was happy with the result.

Print Dilemma

My main concern was output. There appears to be a choice between relatively low quality (300 or even 720 dpi) inkjet printers or high quality, and expensive dye sublimation processes - probably necessitating the use of a bureau and therefore losing some of the advantage of "instant" processing and printing. I did attempt to re-photograph images from the computer monitor. This sometimes produces quite acceptable results. Although I found it necessary to get rid of a blue cast which may be caused by the colour temperature of the screen. However this did not give results which I considered to be acceptable for an ARPS portfolio.

I then read about Barrie Thomas' excellent FRPS portfolio in the July '96 issue of the Journal. His images were printed using an Epson 720dpi printer. I hadn't seriously considered that Inkjet prints would produce the quality of output required for an RPS distinction but based on Barrie's success I decided to attempt printing my images on an HP Deskjet 850C (300 dpi colour) printer. I was rather encouraged by the results.

The next problem was what paper to use? I tried the recommended HP glossy paper but was not particularly happy with the results. Having raided the local stationery shops and tried a number of different types and qualities of paper I ended up using plain white card (160gsm) which gave me exactly the effect I was looking for.
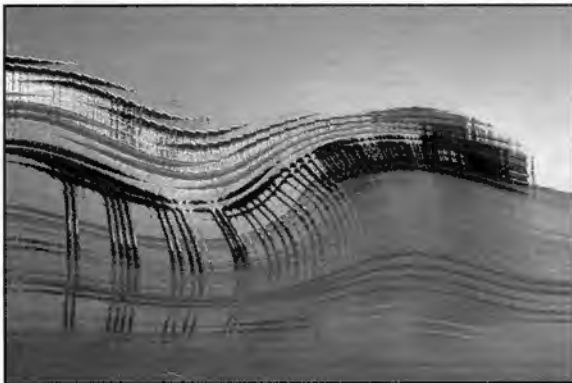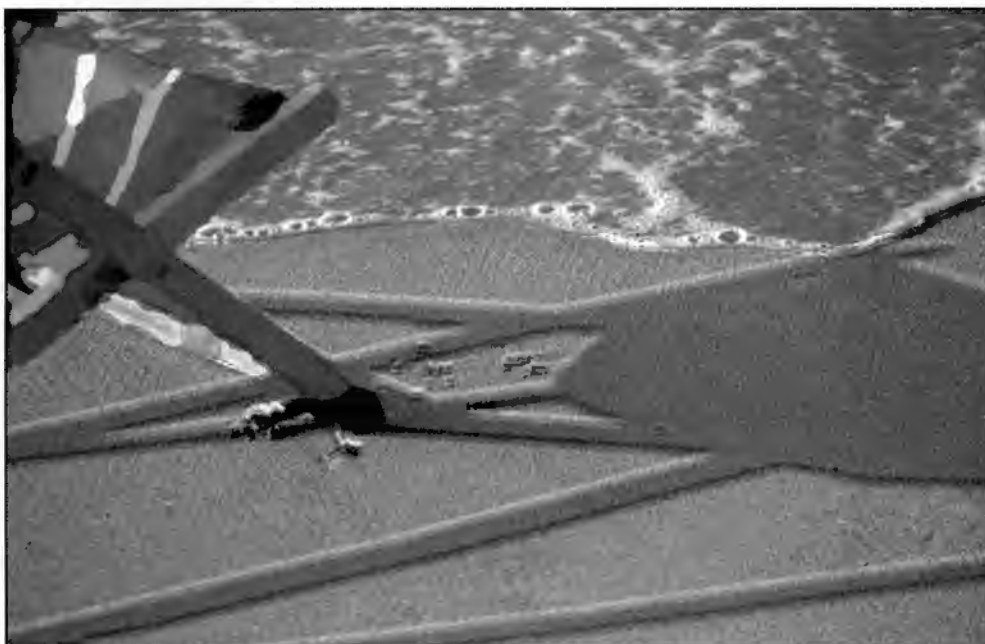
The rest was about mounting and presentation; fairly mundane but extremely important in submitting a portfolio that has to make an immediate impression on the panel. I attended the Pictorial assessment day in October and was particularly pleased that my portfolio was accepted by 4 of the 6 members of the panel and delighted to be awarded an ARPS soon after. (Was this the first successful 300 dpi portfolio?)

The Future

I believe that Digital Imaging will in the relatively near future be part the mainstream of photography. Bearing in mind what has happened to personal computing in the last five years, we are likely to see quality as good as current photographic quality at an affordable price, within the next five years.

Despite this powerful new photographic tool, the creation of good images still depends on the ability of the photographer to 'see' a good picture, to record it competently, and to have the imagination to enhance it in such a way that it creates a desirable end product; whether it be a record of an event or place, an eye catching advertisement, or 'merely a piece of art' to hang on the wall and enjoy.
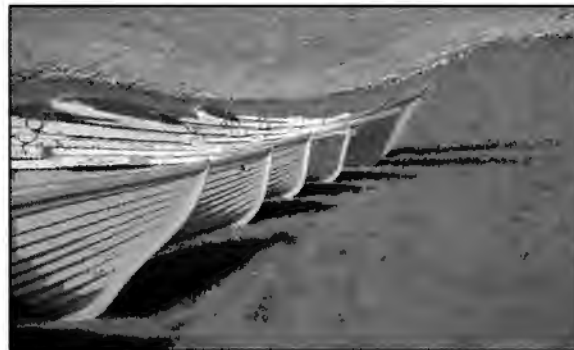
Boats at Bournemouth - Les Spitz ARPS

Sunbeds on the Beach - Les Spitz ARPS

Panel Pointers -

Digital imaging has seen an obvious and significant increase in interest during the last year and this shows no sign of easing. Suddenly everyone wants to know about it and many are actively pursuing it. (The rest seem intent on its destruction!)

This heightened interest is also very apparent from those pursuing RPS distinctions and it seemed appropriate therefore to devote a section of this newsletter to those who have tried recently.

I was fortunate to have been invited as a guest to the last assessment of the A and F submissions in the Visual Arts (Pictorial) category. There is now a requirement that submissions which have been digitally altered are identified, and mention made of who actually carried out the work, so it was possible to view a number of panels which were known to have been manipulated.

The day was both exciting and interesting and I would strongly advise anyone considering a submission to try to attend an assessment day and see for themselves. As much is learned from those panels which do not make the grade, and the accompanying comments, as from those that do.

The successful panels featured here are as a result of me 'cornering' Barry Bevins and Les Spitz immediately after the session, whilst still in a state of euphoria, and thanks to their co-operation you can see some of the photos and gain from their experiences. It should be

made very clear that both of these were originally in delicate pastel colours and have suffered badly in the transition to mono. (Although Barry's may be seen in colour in the current 'Journal')

It was pleasing to discover that neither of these panels were created in Photoshop (although for all its faults I still consider it head and shoulders above the competition!) and David Christie, who has an article later in the magazine, even works on a platform outside of the Mac/PC world. There is room for all of us to use the digital magic on whatever platform and in whatever way we choose. The results are what matter.

Contrary to popular opinion the Pictorial Panel are well versed in the art of DI. Of the nine panel members at least five are actively involved in digital imaging, including the Chairman, and four have taken the time and to spend a day with me in serious Photoshop training. I am delighted to say that after being on my best behaviour whilst 'guesting' I have also been invited to join this illustrious group and therefore no one can say that our interests are not well represented and understood. It also means of course that it is unlikely that shoddy digital work will slip through, which is also a good thing. (Incidentally - in view of the doubting comments re. the Applied Panel later in this issue - at least 40% of the members of that panel are also actively involved in DI!)

Barrie Thomas FRPS - Editor

Digital Distinction

The road to an 'A' distinction was a tricky one, mainly because I had chosen to take the digital route. Prints would not only be judged on their photographic merit, but also on their technical quality - and that was unpredictable during the early stages.

I had upgraded from a 386 to a 75 MHz Pentium in June of 1995, but not with imaging in mind. The Gateway Pentium had a good specification - it came with a 15" Vivitron monitor, a decent graphics card, 2 Mb of DRAM, a quad-speed CD-ROM, 8Mb of EDO RAM, Windows 3.11 and, something that seemed huge to me at the time, 730Mb of hard disk space. All this was state-of-the-art. A little over a year later I would be drooling over advertisements for 200MHz machines with gigabytes of disk space. The 75MHz Pentium was a start and, with a few upgrades, it was to see me through to a successful digital 'A' panel. During July of 1995, I loaded Micrografx Picture Publisher 5.0.

As a television director, I have spent many hours staring at moving images on banks of monitors, and so a single image on a single monitor should have been no problem. I worked through the tutorial, spent time doing outrageous things to cats and hot air balloons, and had two medium format negs transferred to Photo-CD. I then concentrated on producing decent sharp and well-balanced images on screen. I needed to print, and I was aiming at a minimum of A3 size.

Dye Sub. v Epson

'Dye Sublimation' shouted the magazines. *'That's what you need to get photo-real quality'*. A dye-Sublimation printer would have cost me around about the £4,000 mark. I was thinking more in terms of £1,000 or under. Inkjet appeared to be the only alternative, and sample prints from Epson were impressive. Their 720 dpi Stylus Pro-XL was capable of A3 print size and was selling for around £900.

I collected a Pro-XL during December of last Winter, and then found myself facing a complex television production. The Pro-XL was put to one side, as were thoughts of aiming at the March Distinctions deadline with a digital panel.

We were well into April before I went digital again, and I decided to stick with one of my medium format CD images until I was happy with the output.

The first print was interesting: Dense blue, image free, and with a delicate pink fringe. This was a one-off *'welcome to digital imaging'* present from the system. Solid-colour prints did appear again, but only occasionally, and usually immediately after power-up. The problem disappeared during a war to eliminate the greatest hurdle of my entire digital imaging experience.

Banding Problems

Banding seems to mean different things to different people, but to me it meant sleepless nights and unacceptable bands of tonal variations that followed the print head path.

The Epson American Internet Forum was cluttered with cries for help. Banding had reached epidemic proportions across the States. The Americans were hornswoggled. They had no answer except head cleaning. I decided that their banding was different from mine - I had my own exclusive form of banding. I was painfully aware that the Pro-XL had been taking a considerable amount of time to print - several hours (*!!! Ed.*) from the first stirring of the print head

A Cheshire power station was 'moved' to Wales to complete this composite

chart programme, 3D software and a Media Manager. *Everything you need to do anything,* the box suggests, *but we're not telling you how* - the ABC Graphics Suite comes without a single manual. Americans were howling in protest on the Micrografx Internet Forum. *'But that's the way it's going'* protested Micrografx. *'Everything on CD with HELP screens. People don't read manuals anyway'.* Now, to me, and to scores of Americans, this seems crazy. I can just about get away with taking a manual to bed, but there would be hell to pay if I balanced a VDU on the duvet.

The Picture Publisher 5.0 manual still serves for most of PP6.0, but without that, I would have been lost. 'Everything on CD' may make economic sense to Micrografx, but they have to address this one - or lose followers. That would be a shame, I find PP6.0 an excellent programme, and friendly to photographers.

The banding-elimination exercise forced me to experiment with a variety of settings and to log the results. I ended up with about two dozen printed versions of the same image, and the chance to compare quality of output.

I found that the most *photo-real* prints were produced by having all the negatives transferred to PRO Photo-CD, a 6-pack, with the largest file a whopping 72Mb. I would then manipulate at the lower resolution 4.5Mb file size, setting the *output* resolution to 300 dpi. Even though the printer outputs at 720 dpi, it doesn't need much more than *one third* of that resolution to play with for CMY(K) colour. I would then

to the paper ejection. The printer was also pausing to wait for more information at points roughly coinciding with the band changes. The ink would, I assume, have *dried* to a degree before the next pass, and then *wet* ink would have been overlaid - perhaps causing tonal variations. There was also a considerable amount of hard disk

activity during those pauses. RAM, I thought. That's what I need, more RAM to avoid all that rummaging around on the hard disk. I bought an extra 32Mb one week before it halved in price!

That might have solved it, I don't know, because at that time I went through a crazy period of upgrading from Windows 3.11 to Windows 95, upgrading from Picture Publisher 5.0 to 6.0, and downloading a Windows 95 driver for the Pro-XL. The printer then produced a sheet of A3 without a pause and without a trace of banding.

No Manual?

When I upgraded to Picture Publisher 6.0, I discovered that Micrografx had made a strange decision. PP6.0 can only be bought as part of the ABC Graphics Suite, and that comes with a design programme, a flow

An electronic mist layer was selectively 'erased' to reveal the rocks beneath.

The only manipulation here involved smoothing and smearing the smoke.

Borders

I like to give the print a white border surrounded by a narrow black line. This I achieve, by first expanding the image by 3mm with white selected, then expanding again by 3 pixels all round with black selected.

The Picture Publisher command list can be opened and edited. I find this hugely useful if, during manipulation, I feel I need to go back a few stages. I can open the command list, highlight the text line that told the programme to, say, move an object, click *insert*, and the image will be re-drawn at the point before the object was moved. You can also delete actions, or temporarily disable actions - letting all other commands continue as before. List editing has to be used with care, remembering that any one action may effect subsequent operations.

apply Picture Publisher's command list - one of its most useful facilities, all your manipulation actions are in there - to the 72Mb PRO resolution image. This is based on an output print size of 14" x 10.7". You end up with a pretty large 30Mb+ file size, and it can take an hour or so to load, but I found that working with any less than PRO input resolution resulted in loss of definition and pixelation on diagonals.
I turned to Epson's *glossy* paper to get photo-realistic results. Nothing less will do for me now, and I'm very happy with the quality of prints.

lot here, but only if the information is in the original negative or slide.

I would manipulate as needed before applying the Unsharp Mask and then size the image to the final print dimensions. Sizing any earlier would have meant slower working with a large and unwieldy file.

An electronic pen was used to layer mist over the Mersey.

Right Command

Back to that command list. I did find that, when manipulating the more manageable low-res version of the Photo-CD with the object of later applying it to the PRO resolution version before printing, there is a right and a wrong order in which to carry out certain actions. Get it wrong, and the command list will produce visual gibberish when it applies instructions to the larger file. My first manipulation action would be to set the output resolution to 300 dpi. This means that both file sizes, the *working* one and the *final* one, will prepare themselves to be manipulated at that same resolution. I would then set the marvellous tone balance histogram. Very satisfying, this, tweaking a graphical representation of the image tones from black through to white and adjusting mid-tones. Add more shadow detail, pull back the highlights, stretch the mid-tones - you can do the

Panel Panic

So, feeling that I was reasonably on top of the programme, and aiming at the September Distinctions deadline, I had a further fifteen 6 x 4.5 negatives transferred to Photo-CD. The month was June, with just six weeks left in which to produce a fifteen print panel.

I roughed out a few ideas on paper, and then began in a gentle sort of way with a wide-angle back-lit suspension bridge spanning a muddy river bed. I intended to add mist clinging to the damper areas. I opened the CD at 4.5Mb 'High' resolution, set the output to 300dpi, and ran it through the histogram. Very little adjustment was needed and the colour balance was fine. There were just a few spots of neg dust to eliminate - a doddle with the clone tool.

Wacom Mist

I set the active colour to white, selected the airbrush tool at low intensity and high transparency, intending to add mist layers gradually. I was using a mouse, dragging the thing from left to right with my index finger on its left button. All this worked quite well, but it would have been easier with an electronic pen.

I collected the Wacom Artpad a few days later - a nice little device with a surprisingly small 5" x 4" working area. Installation went easily, and the neat little pen glided smoothly over the pad - fine. The cursor, however, moved like green wellies through mud.

Wacom's Internet Forum library had an updated pen driver. I downloaded this, installed it, and the cursor obediently followed the pen point. I used mist and fog on four of the panel prints, but only where fog could *naturally* have occurred. I also developed a better fog technique to replace airbrushing: I covered the image with a 70% graduated white fill, thinning towards the top of frame. This I set to high transparency to allow the entire base image to show through. With the - now co-operating - Wacom pen, I 'erased' areas of the fill layer to bring sections of the base image 'through' the mist. I then opened the command list, and replaced the 'fill' instruction line with one of *lower* transparency. I then applied the modified command list, and ended up with a much denser fog that needed just a little more erase work to complete the image.

I then applied the histogram to crush highlights a little - this 'solidified' the foggier areas.

Finishing Touches

I finally sized the image to output at 14" x 10.7", added the 3-pixel black border, and saved it as a Picture Publisher file - the command list was saved alongside. I then opened this at PRO resolution, the command instructions were applied, and I ended up with a high quality image ready for printing.

Some images were only slightly manipulated, others got more drastic treatment. The temptation was to become more ambitious as confidence grew, but I always aimed to create a final effect that *could* have been there in front of the camera.

I feel that it is vitally important to aim at the highest technical quality at the exposure stage. All the rules of exposure still apply. The possibility of manipulation is not, for me, an excuse for lazy photography. I would never point the camera vaguely in the right direction with the hope of sorting it out in the computer. *Rubbish in - rubbish out* applies as much to digital imaging as it applies to anything.

The question as to whether this is photography is still there.

Manipulation has been going on in photographic darkrooms for years, but computers make it easier.

The photograph can now more easily lie, and so the process must be used with integrity. We must know whether a picture is a faithful reproduction of what was in front of the camera, or if it has been modified by the computer and the imagination. Maybe there is a danger that in years to come archives might contain images of locations that did not exist in the same form. Maybe the hybrid needs another name, like a *digigraph*.

I made one other modification: Because I felt it important to keep a constant light level around the VDU, I installed a roller blind. I created a darkroom.

Another One Bites The Dust

The dreaded letter lay on the hall mat without the "A" crossed out and replaced with an "F".
So, there was no need to open it then. At least not before I got out the bottle of Irish and got half way through it. (It's only nine thirty in the morning!).

I sat staring at it as it lay on the table just daring to be opened. As the Irish started to take effect I could swear that the Queens head was starting to sneer.

OK. Let's be having ye. Find out why the Applied Panel had rejected my panel of slides of digitised images for a Fellowship, and hopefully it wont be a repeat of last time when some members of the panel admitted that they knew nothing about DI and abstained from voting.

Jack Casement ARPS

"The Council of the RPS regrets blah, blah blah.....
I enclose the Panel's comments blah, blah blah ....
encouraged to try again blah, blah, blah................"
Did I really want to read the Panels comments?
Hell yes. I started to read the comments although it was difficult trying to focus. Was it the moisture in my eyes or the effects of the Irish?

Well it wasn't all bad news. The Panel agreed that the slides submitted were very suitable for the purpose declared i.e. examples of my lecture on DI. And they didn't say that they didn't like the pictures. Apparently the problem wasn't with the panel of slides but with the panel of judges. The Chairman stated that they didn't have the judgement of skill in technique used in DI, as they have in conventional silver based skills. At this point no such facility exists for digital manipulation.

They do hold out the carrot that perhaps this project could be tackled in the future. They also considered that the work was basically pictorial/creative in concept and that really the Applied Panel wasn't the right group to consider it, but perhaps, with modifications, it might be more suitably judged by the Pictorial panel.

So there. What do you make of that? I am grateful for the Panels comments but disagree. I consider myself a photographic artist, manipulating my own photographs using both photographic and computer skills, and I want my images to be judged as digitised images, with credit given for the skills involved in DI. Perhaps someone could tell me if a medical photographer submitted a set of slides showing a heart bypass operation in all its gory detail, would anyone dare to suggest that it should be judged by the Pictorial Panel?

All I ask for is an even playing field where a panel of judges such as our own Barrie Thomas can appreciate the skills that are involved. If a little bitterness is creeping into this I hope you won't blame me, but it is the second time that the RPS has admitted that the panel they supplied to assess my work wasn't up to the job of judging DI.

Ah what the hell. Let's have another drink!

All photographs were untitled and originals were in colour

Jack Casement ARPS

Nikon Coolscan

Having recently taken delivery of one of Nikon's 35mm slide scanners, the Coolscan LS-20, I have to report that it is very impressive though perhaps pricy at £1,100 + VAT. Up until now I have had to rely on the transparency adaptor fitted to my Hewlett Packard Scanjet 2CX flatbed scanner.

While this device is satisfactory for scanning medium format tranies, it left a lot to be desired when it tackled 35mm slides and as most of the people attending my DI workshops seemed to be 35mm workers, I had to bite the bullet and buy a Coolscan. I wasn't disappointed. Installation is very simple, especially if you are already running a SCSI board as you just have to piggy-back it onto it, and I was up and running in about thirty minutes. (As usual, I always read the instruction manual after I have installed it and started using the new equipment).

I gave it the full works, scanning full colour slides, colour negatives and B&W negatives and was gob-smacked at the quality of the end product, especially when you scan at the maximum resolution of 2,700 dpi. However it isn't fast, as it takes about 80-90 seconds to do a full scan at maximum resolution (but when you are getting great quality, who's in a hurry?). If you want a faster scan and have just won the lottery, then you might consider the Super Coolscan at £1,600 + VAT.

Font Problem

After the preview scan, images can be cropped, colour adjusted etc. or you can leave the thing to sort itself out with its Auto Calibration, Autofocus, Autoexposure and Autocolour balance. The way I figure it is this. If Nikon have spent a lot of money on Research & Development, who am I to argue? I have found two small bugs though. After I have been using it for a while, the font size in the Nikon Twain interface greatly reduces in size. And not all at once. I will suddenly notice that one or two of the words has been scaled down, and then later all the font sizes will have been reduced. When I spoke to Nikon Technical Support they were puzzled so I left it for their R & D department to sort out.

The other problem I found was this. I was so taken with the quality of the maximum resolution of the scanned image, (which created a file size of 28.8mb) that I decided that I would keep zooming in to see how many zooms I could do before the image pixelated. I didn't get very far. After the third zoom my system crashed. Zilch. I had to re-boot it and have another go. The same thing happened again.

Whose Fault?

I mentioned this to Nikon Technical Support who, probably quite rightly, said that wasn't the fault of the scanner as it had already taken the image into Photoshop, so in effect it's job was finished, so the problem no doubt was with Photoshop. I then spoke to Adobe Photoshop TS who, surprise, surprise had never heard of this problem either (why does it always happen to me?) but started to advise me to download some kernals (or was it colonels?) from Microsoft on the Internet and that would probably put it right. Forget it sunshine. If the image looks sharp when it is scanned, there is no way I am going to start zooming.

In spite of the gremlins, am I a satisfied customer? You bet I am. It's my best purchase since Photoshop.

Since this was written the price has dropped significantly - my Coolscan 2 cost around £800 and they are still going down.

I have to agree with Jack's conclusion. You do not have to fill many Photo CD's to justify the purchase price of one of these and the quality is outstanding.

I have found pre-scan adjustments are sometimes needed however, in particular on contrasty originals.

Ed.

Adobe Photo-Deluxe

Adobe have just released the Windows version of Photo Deluxe, which is a cut-down version of Photoshop. This is an excellent photo manipulation package for the beginner in DI, with an interface that is very simple to understand.

You have an option of following the guided activities which take you through each stage by asking questions and pointing to the button you have to activate to get the required result. This covers each stage from acquiring the image, through the various manipulations available to you to the final printout. Or if you have a bit of experience you can work through it on your own.

Layers

You can work in layers to create composites, and if you are feeling a bit 'arty-farty' you can give your image some sepia toning or embossing as well as using multiple images. There is even a picture library on the CD-ROM for you to practice with.

The only snag I can see with it is that there is no cloning tool. How can you have a photo manipulation package without the facility to remove unwanted items such as television aerials or even mother-in-laws? This is obviously a marketing ploy by Adobe who hope that after getting you hooked it will get you so frustrated that you will go out and buy the full version of Photoshop. Cheeky!

Digital Derivatives

Manipulation of photographic images has a long history, to quote from a book in 1858 'Any dodge trick or conjuration of any kind is open to photographic use. The picture 'The two ways of life' displayed at the RPS printed from 30 different negatives is an example of montage work in 1857.

The availability of affordable computers able to edit and combine digitised photographic images (with or without the addition of computer generated images) to produce good quality derivatives has added a new dimension to the creation of pictures. The extensive manipulation possible has also triggered a debate about the criteria to be used to define a photograph. Visual arts now combine many techniques and whilst there are practical reasons for grouping types of images, I believe greater integration of techniques should be encouraged. With further development as images produced by digital methods become less distinguishable from photographs, visual identification of an images origin is also likely to become impossible.

The Current View
All my pictures conform to what appears to be the current view that the final picture should demonstrably be based on photographic images - recorded using light or other radiation. This is for the practical reason that it is necessary, in order to take advantage of the organisations which exist to promote photographic work and for the comparison and exhibition of photographs.

Millbrook Creek - David Christie ARPS

Digital images tend to be linked strongly to exotic derivatives, however editing of photographs without essentially changing their structure can pay dividends. When I view my images I am often disappointed that they do not convey the image I saw, particularly with landscapes.

Although no amount of manipulation can make a poor picture good, computer editing can enhance the features the photographer hoped to capture when taking the original. This is in effect a powerful extension of accepted techniques such as dodging, toning, colouring, bromoil etc. and can perhaps be considered as comparable to the painter attempting to interpret the scene before him as he sees it.

Millbrook
The illustration showing my image of Millbrook is an attempt along these lines; although the monochrome reproduction cannot convey fully the appearance of the final image. The form of the picture has been enhanced; the black wall across the middle was an uninteresting parallel strip and this has had its top roughened; the point of the triangle of mud in the left center went to the edge of the picture and cut it in half and this has been cut back. A car has been removed from the background. The whole impact of the original has been changed by two important processes which are particularly effective on the computer, namely partial posterisation and bas relief. The former can be used to limit the number of colours to any extent desired and I find it appears to give the image more 'life'. I suspect that there is again a similarity with paintings which also have fewer colours than photographs. The digital version of bas relief enhances surface texture. The final picture

has limited and muted colours and was made by combining a weak version of the final colour image with a black and white version of the same image.

Tied Up
The picture 'Tied Up' taken in Gloucester Docks is a much more extreme example of posterisation more nearly comparable to the similar photographic technique with large areas of single colours. In addition the essential features in the picture have been outlined.

The importance of tone and colour balance became evident in making this picture, even the outlining was found to be too dominant in black and had to be reduced to grey.

Surfing
The final image 'Surfing' is moving towards the more exotic form of digital image although still composed entirely of photographs.

The 'fishes' were a sculpture which has been montaged on a sea scene. The fishes were distorted and scaled to fit the picture and colour was selected to suit the composition. Many effects including those mentioned above were used both locally and over all to produce the final image. With montage the challenge is to make the components look as if they are integral part of a unified picture.

Even from these brief notes it should be evident that a very large amount of trial and error and selection by the photographer is needed on the route to the final image. This I have found to be a valuable process in learning to see pictures and to evaluate features such as colour, form and content which help to distinguish good ones. Since the

Tied Up - David Christie ARPS

effects of many changes to a digital image can be displayed quickly for visual assessment; for me manipulation of digital images has proved a very valuable quick way of learning to judge the importance and interaction of the component attributes of an image.

(All original photos in colour)

Surfing - David Christie - ARPS

Disk Postal Portfolio

As stated in the first newsletter, it is our intention to provide disk-based postal portfolios for the benefit of our members.

To set the ball rolling I am inviting members wishing to take part to send a single image on floppy disk to myself, together with a brief note (also on disk please) about the picture and how it was created.

Each portfolio group will consist of seven persons, and as soon as I have a full compliment of seven images and accompanying notes, they will be put together onto two disks (one for the images and one for the notes) and despatched to the first name alphabetically on the list.

The first time around all of the images will be left in place and comments will be made by each of the members, about each of the photos apart from their own, before posting on to the next in line. When it returns to the first name on the list they will remove their own image together with its accompanying note and replace it with a new one. The process then continues in this fashion.

To avoid long delays before it is passed on a strict limit of seven days will be allowed for the turn-around. If for any reason you are unable to replace your image etc. within this time you simply post it on without the new notes.

This may seem rather strict but in practice it means that you should receive the disk about seven or eight times a year and everyone benefits. There is no point in being in a portfolio if it simply sits on your desktop!

In order to add variety it should be possible to be in more than one group, or to rotate the group members perhaps once a year, but I will look into this when it is up and running and see what the members want to do in this respect. Initially I just want to get each person who is interested into a single group - we will learn as we go along and feedback will be very welcome.

It is important to consider the platform, disk format and file type.

I am only able to handle PC disks and the images for this should be roughly 3Mb - 4Mb at screen resolution of about 94dpi. After compression (by saving as JPEG) they should be smaller than 200Kb thereby allowing seven images on one floppy disk, which will look fine when viewed on screen. Text should be prepared using Notepad and kept reasonably brief.

I would welcome an offer from a Mac based member to provide a similar service for our Apple users or indeed any other platform if there are enough of you using it.

We have a massive advantage over other groups in having access to computers - this is a very positive way of using them to further our photography and at the same time make new friends with similar interests. It starts as soon as I receive the first seven disks so it is up to you.

Send your disks to -
Barrie Thomas FRPS, 85 Beech Gardens, Rainford, Merseyside. WA11 8EB.

Digitalk.

My name is Brian Lewis and I am an alcoholic. Hey, wait a minute, this is the wrong meeting! Start again. My name is Brian Lewis and I manipulate photographs digitally. With hindsight, perhaps I would be better received in some quarters, if I had persevered with the first sentence. It is disappointing that the RPS Nature Assessment Panel blackballs the use of digital imaging *(I checked this with the panel Chairman, Martin Withers, and he confirmed that this is the current situation- Ed.)*. Nature photography, being record photography in a pure form, seems to me just the work that would benefit from Photoshop. At least the Applied panel welcomes DI and was I believe, the first panel to award a Fellowship. It was a set of advertising shots - 5 x 4 transparencies of motor cars. Quite superb.

Clare - Barrie Thomas FRPS

After conversion from 35mm colour in Photoshop, the face was protected using a radial gradient mask. The outer area was then manipulated by brightening, and the use of various filters including edge detect and blur.

I use Photoshop daily in my business, which revolves around Quarrying, Mining & Construction equipment. No 'funnies', (more about those later). Just simple cleaning up, adjusting contrast, saturation, colour balance, etc. Then perhaps colour matching the main image to a Pantone swatch. Why have I partially abandoned traditional darkroom techniques? As a businessman reacting to market demand, I can see clients beginning to require their images on CD ROM. It is as simple as that.

Equipment Spec.

I run Photoshop on a PC - Pentium P166 equipped with 128 Mb of RAM. It has a 21" screen & 2 hard drives. C:\drive - 1.2 Gb, runs my Windows software. A 2.5 Gb is partitioned to a 0.5 Gb E:\drive, which houses non Windows software. The 2.0 Gb D:\drive is used as the Photoshop .TMP file. It is three months old and even so, I am ready to tear out the current P166 motherboard, replacing it with the new MMX chipset now becoming available.

The prime life of any computer can now be measured in months, so it makes sense to purchase one that can be gutted periodically. I have previously always bought big name computers. The problem is that they tend to use non standard architecture and cannot easily be upgraded. This time I went to a local computer builder and opted for standard Taiwanese components. He liaised with KJP and hooked up a Nikon LS1000 Super Coolscan to it. Now I can upgrade the system, bit by bit.

Slow Photoshop

It is blistering fast with all but one programme. Yes, you have guessed it, Photoshop. I really cannot imagine just what it takes

to run Photoshop speedily. I scan at 2700 ppi and output at 720 dpi. Some of the larger files run to 350 Mb. *(I am not surprised it's slow! Ed.)* Photoshop seems to unable to handle files exceeding about 40 Mb speedily. I read a review of the long awaited version 4, which suggested that this had a better ability to cope with larger files. I hope this is correct. If anyone has experience of the file handling characteristics of xRes, Live Picture or Fractal Design Painter, I would be pleased to hear from them.

I use an Epson Pro XL+ to produce pre-press proofs. Although I predominately use A4, it will in fact print to about 18" x 13". The quality is excellent and at around £800 it is a cost effective alternative to an £7,000+ A3 Dye sub printer. I use Epson's dedicated paper. The gloss is superb. Kodak A4 gloss paper, whilst having the feel of normal photographic print paper, is not nearly as good. (It's half the price though - which could influence your decision ...).

I notice the Photoshop tutorial mentions the use of a stylus and tablet. I have never used one and have only the vaguest idea of what they actually do. Is anyone using one of these? If so, I would be pleased to hear from them.

DI Exhibition

I mentioned 'funnies' earlier. I went to the recent DI exhibition at the RPS and was not entirely overjoyed with what I saw. Now I had better confess that I gained my A & F using tone separations, involving stripping & masking, cutting & pasting techniques. What took me days in the darkroom can now be done in hours in Photoshop. However some of the exhibits were somewhat crude. Some of the selecting was brutal, with poor use of the lasso

Editorial Comment...

A number of issues arise from Brian's article which I feel sure will bring comment. Perhaps my own perspective might set the ball rolling.

In this issue we have comments re digital imaging and the Nature and Applied Panels, so perhaps in the interests of DI we should ask all of the panels to state their policy, and feature them in future issues.

On image size and resolution (probably the subject which poses more questions to me than any other) I would have to say that Brian's approach, unless designed for very large posters, is well over the top.

A colour scan at 2700ppi will give a file size from 35mm of almost 29MB, and since Photoshop requires 4 to 5 times more disk space to carry out its tasks we are talking 116MB to 145MB of usable RAM to avoid it reading back to the hard-disk. This file would instantly put pressure onto Brian's system but in reality you never actually have all the RAM fitted available to you - on my own setup it amounts to about 108MB of the 128MB installed the rest being absorbed by the system (Check your scratch disk size in Photoshop's information bar). Incidentally Photoshop 4 is not noticeably faster and Fractal Design Painter can bring any computer to its knees!

It is also unnecessary to output at 720dpi even though the printer is capable of doing so. In an ideal world this would be the correct approach from continuous tone originals, but in reality improvements are difficult to see once you get past about 200dpi. Try it yourself by printing the same image at 180dpi, 360dpi and 720dpi.

Unless transferring to an outside printer it is also unnecessary to start 'messing' with CMYK and all the associated and complex preference settings. (My advice is to leave these well alone!)

All of my images are manipulated and printed in RGB. This saves a whole channel in Photoshop and once you have made the necessary adjustments to make your on-screen image match the printed image there is no need to make any other alterations. Out of Gamut is largely an irrelevance to an inkjet since it applies to the problems of using commercial printing inks which are much thicker and 'muddier' than inkjet inks. The brightness of colour is one of the great attractions of direct inkjet printing.

Can anyone else offer regional meetings? Thank's Brian.

and magic wand, producing heavily fringed images. Also, the juxtaposition of the various layers was not logical or well thought out. Look at some of the images in November's *Digital Pro* and you will see what is being done by the professionals.

Are you consistently out of gamut? Like you, I produce images in glowing colours, only to see from the Info table, that the beautiful green I have just created in RGB on my monitor, has no CMYK equivalent and consequently will not print out. Now I keep the CMYK preview turned on most of the time and have the gamut warning in a lurid red which I simply cannot ignore. However, help is on the way in the form of Hexachrome. As I understand it, this is a six colour process, with the usual CMYK being strengthened by the addition of orange and green inks. It sounds interesting. Will we soon be seeing adverts for CMYKOG Dye sub and even Ink jet printers? (If so, offers for my CMYK gear will be gratefully received .....).
(A desktop inkjet printer using six colours is already available - more will certainly follow. Ed.)

Record Detail
As a darkroom worker, I keep records of aperture, f stop, colour settings and timings for all my prints. Using Photoshop I have found the need for something similar. *(A sample sheet was sent but there was insufficient space - a S.A.E. to Brian would get one. Ed.)*

When offering a batch of images to clients, I clearly have to ensure the main subject matter is consistent in tone. The recorded readings enable me to do this. I simply alter the colour balance until the RGB readings are the same as a previous (correct) image. For example, the first

image I created today - of a crushing plant, was matched to a paint sample. The RGB Info gave a reading of R=6, G=205 and B=77. All subsequent images were balanced to this. The section headed 'Pantone equivalent is used where I colour match to Pantone Swatches. Caterpillar plant for example, is Pantone 123 Yellow C. By matching output to this, I can hopefully produce authentically coloured images.

When on a photoshoot, I tend to use both colour neg (Reala) and slide (K64). As you know, print and slide films read individual colours differently. Even when using film from the same manufacturer, there will be differences in the saturation characteristics. Shooting in sunny conditions does not seem to cause a problem, but when filming on dull overcast days, the effect of supplying prints that have been produced both from print and slide is that there are slight differences in tone. We minimise this by manipulating the hue, saturation, brightness, contrast, colour balance, etc. However even with all this electronic wizardry, there are still differences. Perhaps as photographers, it is more noticeable to us, for as yet, no client has commented on this.

Open Invitation
This newsletter is great for exchanging ideas and hints, but is a poor substitute for regional gatherings. There have been a small number of these in various parts of the country and to get the ball rolling in my neck of the woods (Bristol), I will be quite happy to organise say a quarterly get together at my studios. These are situated 6 minutes up the hill from M5 Junction 19 (Gordano Services). If you are interested please phone on 01 275 852 027 or fax on 01 275 810 555.

Liberation -
Gwen Charnock FRPS EFIAP

Looking up at the this war memorial near Calais made me almost dizzy, due to the perspective, and I used a 24mm lens to capture this impression. This gave the structure power. Contrast in the sky was enhanced, adding greatly to what is a very simple geometric shape.

I knew at the time of taking, that the image required more interest and information to get over the message of liberation to the viewer. The elderly couple were taken in New York's Central Park and the lady just happened to be reading a newspaper with FREE written on it. They were perfect models.

The birds were actually flying around the statue of liberty. The large bird was inserted and the rest of the birds are the same creature, flipped and expanded to make up the numbers! The couple had to be stretched using perspective control, because they were originally taken straight on.

Profile...

Phil and Gwen Charnock are dedicated and committed photographers well known for the quality and variety of their images - and of their lectures!

Their working hours are spent as professional photographers, mainly in the industrial and commercial areas, and therefore in disciplines totally removed from the highly creative and imaginative work which they create for personal use.

They are members of Wigan 10 Foto and both are active on the exhibition circuits. They have been successful to the very highest levels, winning numerous awards internationally.

Phil is on the Visual Arts Pictorial Panel and also on the judges list of the PAGB.

They are both recent 'converts' to digital but totally immersed in the whole new world of creativity which they have discovered.

It's Black 'N' White -
Philip Charnock FRPS EFIAP

(Originals in colour)

Taken in Southern Ireland, these two drunks were 'imported' from Ennystymon to Dan Foley's pub, which is a super example of a typical Irish pub. The walls are bright pink in the colour version.

The man wearing the cap was on the left edge of the frame in the original picture, so half of his arm had to be redrawn using the clone tool, making good from the existing image. His face was lightened, using the lasso and brightness control.

Contrast was adjusted where necessary and finally the Guinness sign was sharpened to make it stand out.

Notes of RPS DIG meeting. By Mike Brown - for Harrogate P.S.

Inaugural meeting of the RPS Digital Imaging Group - National Museum of Photography Film and Television - Bradford, 15th October 1996.

The meeting was Chaired by Dr. Mike Austin who explained that the current officials of the RPS DIG were in temporary positions until the first Annual general meeting. He introduced the various speakers.

Amanda Neville, Head of NMPFT.
Pointed to the many valuable features of digital imaging but suggested that we were entering a revolution which would bring in its wake moral and legal problems.

Manipulation was becoming so easy that photography may in the future be portraying an unreal world, without blemishes, and this would damage credulity in photo-journalism and other facets of photography. The overuse of manipulative dexterity could lead to artistic values being degraded. Digital imaging is affecting the art world by decreasing the number of practical techniques that the artist without digital imaging could sensibly use.

Vast photographic archives were being built. The photographer was becoming secondary to the manipulator who could use composite photographs drawn from the archives. Problems were being experienced in administering copyrights.

Amanda Neville called for photographers to face the new situation, to see manipulation as being a creative activity of the mind, and to use it to best advantage.

Martin Oliver, NMFTP
Described the roles of digital imaging in the NMFTP. The museum possessed 3 million photographs and the task of making high resolution archives of such a large number was impractical at present. He didn't expect screen displays to match original photographs in quality in the foreseeable future because of the limitations in VDU technology. The museum was gradually building a database of low resolution images which would provide multimedia facilities for the general public. It would assist the public to discover what was available and to identify specific photographs which could be withdrawn

from the archives for inspection if required. As much of the work as possible was contracted out to specialist software houses and imaging bureau. Kodak PhotoCD imaging technology was used extensively.

Mark Owen, NMFTP
Gave a demonstration of Adobe Photoshop digital imaging software in the museum's digital workshop. He emphasised that there are a huge number of manipulation tools in the programme and that he had time to demonstrate only few of them. He included demonstrations illustrating how simple it was to isolate selected parts of an image, or to combine images seamlessly, and to adjust colour composition. He compared images scanned at low or high resolutions respectively. The final images could be stored on the computer's hard disc or on removable discs in various types of external drive. Commercial bureau were used to scan images onto discs.

Prof. Ray Earnshaw
Electronic Imaging and Media Communication Department, Bradford University.
Prof Earnshaw described his fast growing department at Bradford University. He listed extensive national and international connections and collaborative projects. In particular he mentioned that the department was linked to several other universities to form a DTI Virtual Centre of Excellence. He outlined various exciting developments that were currently taking place in digital broadcasting and on the Internet plus many further technological developments that were in the planning phase, but would soon be implemented.

The meeting ended later than intended, because of the many questions raised. Dr. Austin gave warm thanks to the speakers for their very interesting and thought-provoking talks.

Carnival Man - John Colmer ARPS AFIAP

(Original in colour)

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The Editor.

We have a number of problems which must be urgently addressed at the forthcoming AGM and none are more pressing than the need to appoint an Editor for this newsletter.

When the group was formed, and in order to set it rolling, I agreed to produce the first newsletter on the strict understanding that it was a one-off. This proved to be quite a task since we had few members and no mechanism to make it all work.

This second issue was undertaken extremely reluctantly, simply because we still had no permanent committee and our steering group had itself been depleted by the long-term loss of our acting Secretary after his road accident.

This edition has been much easier since all the materials herein were supplied to me on disk (which saved much one-fingered typing!) but the fact remains that with my other commitments I simply do not have the time to continue the task. I will not be producing the next newsletter and therefore if there is to be one, it depends upon one of the members now reading this to take it on. As the saying goes 'It could be you'.

At this stage it is very easy for you to pass on and expect someone else to volunteer but if you feel qualified please give it some serious thought. Ideally it would suit a member who is perhaps retired and can devote the time without it becoming a burden.

We have a real advantage in that presumably all of our members have computers which means that the actual workload is spread amongst us. In addition the printers are able to take the data from a Syquest or similar device and therefore there is no problem once it has been desktop processed.

It is both an interesting and rewarding job which puts you in touch with many people involved in DI. It is certainly not difficult but it does require time and commitment if it is to be the success that it must be.

If you think you can help **please** ring me to discuss it further.

Annual General Meeting

The Annual General Meeting of the RPS Digital Imaging Group will be held at the Pump Rooms, Bath at 1400 hours on Saturday the 5th April 1997.

This venue and date also allows you to visit the Society's Photo Forum which is to be held in the Octagon over the 5th and 6th April.

For any further information contact Michael Austin.

Barrie Thomas (Editor) may be contacted at -
85 Beech Gardens
Rainford
WA11 8EB

Over The Top -
John Colmer ARPS AFIAP
(Original in colour)