

Since the last Lyson Pro News the products that have taken the market by storm are continuous ink systems (CIS). Lyson have been at the forefront of this by bringing systems out almost as fast as the printer manufacturers bring out printers.

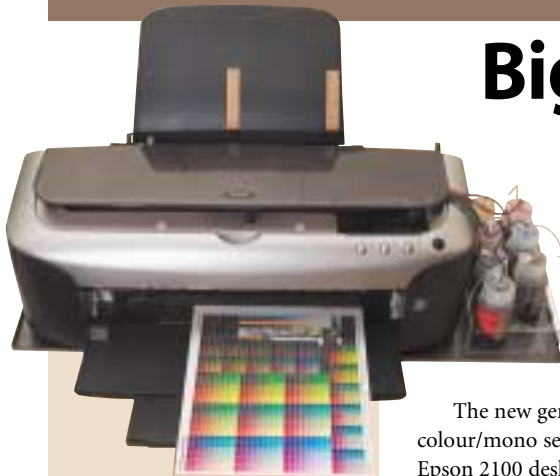
Using a CIS brings down the ink cost massively, so don't always go for the cheapest paper. Light stability, colour accuracy and drying speed are just

some things affected by the relationship between the ink and the paper. It is for this reason that Lyson produce their own range of paper. There are already several very 'traditional photographic' looking papers in our 'Darkroom Range'.

Go to your nearest Lyson Centre of Excellence to see our range of papers and get advice on which one will work best for your photographs.

Save at least £1 on every A3 print with the Lyson Continuous Ink System

## Lyson's star performer the amazing Continuous Ink System



### What CIS users have to say...

"I am getting on very well with my Epson 2100 and your continuous ink system. I am using Fotonic inks with Lyson Colour Photo Gloss and Standard Fine Art, both of which have been custom profiled for me. I also use an Epson 1290 with your CIS system. With this, I use Small Gamut inks and Lyson Photo Satin and Standard Fine Art and I am really happy with these."

Gary Pepler

"I'm using your continuous ink system with my Epson 1160. I have been really satisfied with it. I use Quad Black neutral ink to produce B&W A3 prints from scanned slides and negs. I have been using Photo Satin 265gsm for most of my prints and a few have been very successful in international salons and national competitions."

Peter Paterson ARPS

## Big money savings for Epson users!

The Lyson Continuous Ink System (CIS) has proved to be outstandingly popular with busy photographers eager to get the very best in terms of quality, value for money and in certain circumstances greatly increased print speed from their Epson printers – the most popular of which is for use with the Epson 2100.

The new generation Lyson Fotonic archival fast drying, dye-based, colour/mono seven channel inkset was especially developed for use with the Epson 2100 desktop inkjet printer. This high quality professional printer uses a lot of ink. Lyson tests showed that 25ml of ink is needed to produce 12 A3 prints (with 9¼" x 13½" of print coverage – over 2ml of ink per print).

By converting the Epson 2100 to Lyson's Continuous Ink System, utilising 125ml bottles of ink costing just £20 (excl. VAT) per bottle, the ink cost for an A3 print is just 33p. Lyson also produces 1 litre bottles of these inks to refill the 125ml bottles. They cost just £75 (excl. VAT), bringing the ink cost down to about ten times less expensive than using cartridges.

The new Lyson Fotonic inksets for the Epson 2100 can be used to print on a wide range of inkjet media – removing the media/ink compatibility restrictions often associated with slow-drying pigment inks.

## NOW three Lyson inkset options for the Epson 2100

in cartridges and bottles for the Lyson CIS

### 1 NEW Lyson PhotoChrome

Installing Lyson PhotoChrome pigment-based inksets into your Epson 2100 will retain the usual pigment sunlight longevity advantages, without the need to change black cartridges when changing media type.

Lyson PhotoChrome prints may be successfully laminated, unlike the brand inkset, and very importantly is fast-drying, which enables you to use a wider range of media.

Calibration experts report that this inkset gives a better, purer black within colour prints, and a better monochrome once suitably profiled for your favourite media.

Lyson PhotoChrome works well with matt, semi-matt and fine-art media, and exhibits no greater bronzing on gloss and lustre/satin/pearl finishes than the brand inkset. Adding a Lyson CIS system with this inkset gives you similar economies in ink cost as for Lyson Fotonic inks.



Using Lyson 125ml bottles of ink, the ink costs just 33p to produce one A3 print. With the consumer brand inkset, in the standard 17ml cartridges, costing around £10, the ink cost for printing one A3 print is approximately £1.23, assuming you use all the ink in the cartridge.

The Lyson CIS conversion kit/starter pack, excluding inksets, costs £250 for the Epson 2100, and start from £110 for other printers.

*These kits are available for the following Epson printers: 1160, 870/890, 1270/1290, 2000P, 2100, 4000 and the large format 7600/9600 printers.*



### Lyson PhotoChrome offers:

- Excellent light stability in high intensity situations ie. outdoor display.
- Ideal for fine art printing.
- Lustre prints with minimal bronzing.
- No need to change between photo and matt black inks – Lyson black works on all paper types.
- Can be laminated or heatsealed with no colour shift.

Continued on page 2...

## Three Lyson inkset options for the Epson 2100 ...continued from page 1



### 2 Lyson Fotonic Inkset

Proven highly successful throughout 2003, the conversion of your Epson 2100 to use Lyson dye-based Fotonic archival inksets will enable your printer to produce superb smudge proof archival high-gloss and lustre prints without bronzing using Lyson 265gsm Pro Gloss and Lyson 265gsm Satin/Lustre. A super-smooth Pearl finish, also without bronzing, can be achieved with Lyson 250gsm Darkroom Pearl.

Adding a Lyson Continuous Ink System to your 2100 will reduce

your ink costs by 75% (using 125ml replenishment) or by an amazing 90% (using 1 litre replenishment).

A new feature is the ability to run this inkset on the 2100 using 1440dpi high-speed mode, which improves your print speed to around 6 minutes for an A3 colour print! Simply obtain a custom ICC profile created for this print mode. Apply now to [lyson@marrutt.com](mailto:lyson@marrutt.com) for a FREE sample A3 colour gloss print.

#### Lyson Fotonic offers:

- Light stable dyes giving long life for normal indoor display use.
- Quick drying, allowing high speed print settings to be used, with appropriate Lyson papers.
- Extended colour gamut giving vibrant and colour accurate prints.
- Compatible across a wide range of paper finishes from high gloss to fine art papers with no bronzing.

### 3 Lyson Quad Black Toneable inkset

By combining three channels of archival Lyson Quad Black neutral with two channels of Quad Black warm and two further channels of Quad Black cool, Lyson has created a totally new toneable archival Quad Black inkset. With certified longevity of 100 years in indoor display conditions, this inkset turns your 2100 into a versatile monochrome printer, and

has the ability to produce excellent neutral black & white prints, which may be uniformly toned towards warm or cool in infinitely variable steps, or mix warm/neutral/cool tones across densities using Adobe Photoshop controls.

Beautifully smooth graduations give you hand-print tonality, working well with gloss, lustre, matt and fine art media. Adding a Lyson CIS system with this inkset gives you the same ink cost savings as for Lyson Fotonic inks.

## Review of 2003

Early on in 2003, our introduction of the Continuous Ink System for the Epson 2100 proved to be extremely well received, with nearly 500 Epson 2100 printers being converted to use the Lyson CIS by the end of 2003.

Initially, it was the amazing ink cost savings which seemed to motivate our early customers (one quarter or even one tenth of their previous ink cost), but with most

## The highlight has been the success of the Lyson Continuous Ink System

photographers using custom ICC profiles to obtain optimum print quality and accuracy, many found that it was possible to run their printers on the 1440dpi high-speed setting, which enabled far higher print speeds (a six minute A3 print compared to up to 20 minutes per A3 for older generation inkjet printers).

In addition, high-gloss and smooth-sheen lustre prints without bronzing were easily achievable with this system using Lyson 265gsm Professional Photo Gloss and Lyson 250gsm Darkroom Pearl, which were all but impossible with the consumer brand inks and media on the Epson 2100.

COMING SOON  
in cartridges and bottles for the CIS

## NEW Lyson PhotoChrome inkset for the Epson 4000

Once the excellent new Epson 4000 printer is generally available, Lyson has an exciting new PhotoChrome inkset ready. Available in cartridge or CIS form, this inkset has been tested and achieves the same imaging advantages as the PhotoChrome inkset described

*Ask for our new smooth high-gloss solution for this printer - no bronzing!*



on page 1. Adding the new Lyson CIS system turns this already fine printer into an awesome production machine for busy Professionals and Labs.

## NEW Lyson PhotoChrome inkset for the Epson 7600/9600

Installing Lyson PhotoChrome pigment-based inksets to your Epson 7600 will retain the usual pigment sunlight longevity advantages, without the need to change black cartridges when changing media type.

Lyson PhotoChrome prints may be successfully laminated, unlike the brand inkset, and very importantly is fast-drying, which enables you to use a wider range of media.

Calibration experts report

*Ask for our new smooth high-gloss solution for this printer - no bronzing!*



that this inkset gives a better, purer black within colour prints, and a better monochrome once suitably profiled for your favourite media. It works well with matt, semi-matt and fine-art media, exhibits no greater bronzing on gloss and lustre/satin/pearl finishes than the brand inkset. Adding a Lyson CIS system with this inkset dramatically lowers your medium and large format print costs.



### ICC Printer Profile providers

For custom ICC printer profiles we recommend that professionals contact either:

#### Neil Barstow

E-mail: [lyson@neilbarstow.co.uk](mailto:lyson@neilbarstow.co.uk)  
[www.colourmanagement.net](http://www.colourmanagement.net)

#### Udo Machiels

E-mail: [info@atmosuk.com](mailto:info@atmosuk.com)  
[www.atmosuk.com](http://www.atmosuk.com)

Non-professionals please contact:

#### Tony Riley

E-mail: [profiles@imagetune.co.uk](mailto:profiles@imagetune.co.uk)  
[www.imagetune.co.uk](http://www.imagetune.co.uk)

All three provide an exceptional service, are fully Lyson accredited and are knowledgeable in all Lyson product combinations.

# Epson 2100 production solution for Wedding Photographers

Photographer: Michele Lund.



*"Last August I bought an Epson 2100 and the Lyson Continuous Ink System, which enable me to produce my own wedding albums and clients are made up with the prints.*

*"I am currently using Lyson Darkroom Pearl media and the off-the-shelf Lyfot Gloss profiles with outstanding results. The prints are quick drying and the low print cost with this setup removes all the cost concerns of using other printing systems."*

*Michele Lund*

The Epson 2100 inkjet printer, combined with Lyson's Continuous Ink System, Lyson Fotonic inks and Lyson 265gsm Professional Gloss paper, Lyson 265gsm Professional Satin paper or Lyson 250gsm Darkroom Pearl paper is the first combination that will enable you to produce wedding albums quickly and cost-effectively. (A 10"x10" album page may be printed in around three minutes.) Photographers are increasingly turning to this exceptionally successful solution.

This setup enables you to use your high-speed setting on the 2100 to produce instantly dry, light stable, high quality photographic gloss or pearl prints with no bronzing.

The new generation Lyson Fotonic archival fast drying, dye-based, colour/mono seven channel inkset was especially developed for use with the Epson 2100 desktop inkjet printer.

By converting the Epson 2100 to Lyson's Continuous Ink System, it gives you an amazing cost saving –

up to four times cheaper than using cartridges – by utilising 125ml bottles of ink. There is no ink wastage at all and they cost just £20 (excl. VAT) per bottle.

Custom ICC printer profiles enable you to run the Epson 2100 printer around four times faster, and give higher print quality. You also have the assurance of complete colour accuracy for your favourite papers using any ICC Profile compatible software. There are several Lyson approved calibration specialists able to assist you.

## Digital wedding albums the Lyson/Epson route

### Epson 2100 user profile

Sylvio Dokov has had almost 20 years' experience as a photographer. He was born in Sofia, Bulgaria and at the age of 12 moved with his parents to Khartoum, Sudan. This sudden and dramatic change in lifestyle and scenery aroused his interest in photography.

In 1972 the family moved to England and Sylvio studied biochemistry at London University. After obtaining his B.Sc., he went on to a Doctorate in biochemistry at Bath University and then spent three years doing research at Cambridge.

After ten years in biochemistry, he decided to take up photography full time. This was not a total jump in the dark as he was already covering sports events for the Sports Council, had illustrated several books and had large portfolios of sport and travel photographs with two picture agencies.

Sylvio built a studio adjoining his house in Telford, where he does portraiture. Weddings are an important part of his business, and he also undertakes numerous

commercial assignments, which take him all over the world.

"For a number of years I have been dissatisfied with the prints from commercial laboratories. Most of the time I prefer to use slide film, but for weddings the diverse lighting conditions means this option is not viable. For a while I did my own printing, but this proved too time consuming. In the last two years I immersed myself in Photoshop, which has given me the ability to colour correct, crop and adjust photographs to my liking. Unfortunately, the prints I was getting from my laboratory were still not as I intended.

"The only answer was to go back to printing my own photographs. The wedding albums I use accept 10" x 12" and 11" x 14" prints and as I can simply slip the photographs in the album pages, a printer up to A3 size was essential. The obvious choice was the Epson 2100. I was aware that the printing cost would be extremely high if I carried on using the Epson cartridges, so I converted to the Lyson Continuous Ink System, which makes the 2100



colour profile and it gave me perfect prints every time. Another very important point was to calibrate my monitor, which ensured that my prints looked exactly as I saw them on my screen.

"Having got everything flowing nicely, I took my final

extremely cheap to run.

"The main hurdle to overcome was colour management. I was supplied with a Lyson generic colour profile and my initial prints were good, but not perfect. There is the great temptation to try and adjust the colour profile, which must be avoided at all costs if one is to retain one's sanity. I should know, as I printed almost 100 prints in just a few days trying to do just that.

"I finally contacted Neil Barstow (one of Lyson's professional custom profile providers – see page 2) who supplied me with a custom ICC

## Epson 2100 users' Feedback

*"I had my system custom ICC profiled when I installed the Lyson Continuous Ink System and Fotonic inks. I print at 720dpi for display work and 1440dpi for customers. Compared to the original Epson inks, the two main differences are that there is no 'bronzing' with the Fotonic inks and there is a much appreciated increase in speed, even at 1440dpi.*

*"The dramatic decrease in the cost per print enables me to redo my display prints far more often.*

*"I have been impressed, so much so that I have recommended the Lyson system to several other photographers that I know who have been toying with the idea of continuous ink systems."*

*Stuart Warren*

*"We are impressed by the Epson 2100/Lyson Continuous Ink System and will be purchasing another one this year along with your bulk ink kit."*

*Simon Penrose*

step to going digital and exchanged my Bronicas for Canon EOS 10Ds. There was no point in trying to produce good quality prints quickly and efficiently when 80% of my time was spent scanning negatives and removing dust marks.

"I am currently (February 2004) producing my fifth digital wedding album of this year – fifty 11" x 14" prints – and I still gaze in wonder at the quality of the finished prints," Sylvio told us.

You can contact Sylvio on 01952 617598.

*See Epson 1290 setup story page 4.*

## Digital wedding albums the Lyson/Epson route

### Epson 1290 user profile



“The Lyson Continuous Ink System has been a godsend. It has been so cost-efficient to use. The saving on ink is just amazing. My Lyson/Epson 1290 setup produces beautiful quality prints. I have started to use Lyson

Stephen Benzie, a professional photographer who is based in Sittingbourne, Kent, has been using Lyson Fotonic inks with the Continuous Ink System successfully for over two years. He is mainly a wedding photographer, but also does portraiture and landscapes.

A professional for ten years, Stephen now shoots weddings digitally, using a Canon EOS D10 camera, and produces his own wedding albums using an Epson 1290 printer. He has had custom ICC printer profiles created by Udo Machiels, one of Lyson's professional custom profile providers (see page 2).

265gsm Pro Photo Satin and Lyson 265gsm Pro Photo Gloss papers for producing wedding albums and I am getting brilliant results.

“When it comes to wedding photography, I like to work with couples who want a creative approach. I enjoy capturing images that are artistic and different from the norm,” Stephen told us.

“I am currently helping two photographers, local to me, to convert to digital working using the Lyson Continuous Ink System. This is definitely the route to take,” he said.

Stephen has won many awards for his varied work – the latest being the SWPP & BPPA ‘Environmental and Nature Photographer of the Year’, awarded last December. Two of Stephen's wedding images are shown here. Also see more of his images in the Gallery opposite.



## Why you need ICC profiles

The print drivers for all printers are designed to work with the manufacturers' own inks and papers. If either or both ink and paper are altered then the settings within the print driver will be wrong.

Because Lyson colour inksets produce a wider colour range to suit the professional colour environment, this printer-to-printer variation is more pronounced.

For instance, if you use Fotonic inks without any colour management your print will be extremely magenta.

To take account of the change of ink and paper, Lyson uses ICC colour profiles to modify the way the print driver works. The colour profile not only modifies the colour balance of the print, but also the amount of ink the printer lays

down. This is important, as different papers take different amounts of ink.

**There are two forms of colour profile – generic and custom.**

Custom profiles are written for a specific printer by a colour management specialist.

A generic profile is one that is written to work on all printers of a certain type. The potential downfall of generic profiles is that they cannot take into account the inherent differences between printers of the same model. If your printer is closely matched to the printer on which the profile was written then there will be no problems.

**There is a range of generic ICC profiles on our website to download for customers to use, free of charge.**

## Lyson Users' gallery

one



Stephen Benzie



Stephen Benzie



Lisa Ingram



Callum Bennets



David Ashdown



Lisa Ingram



Stephen Benzie



Quantum Studios



Maurilo Teso



Stephen Benzie



www.marrutt.com

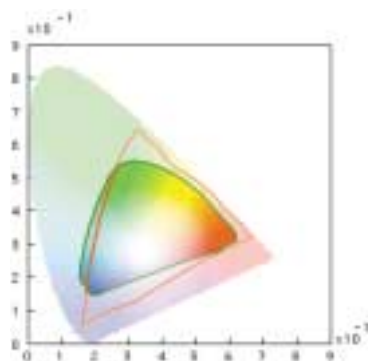
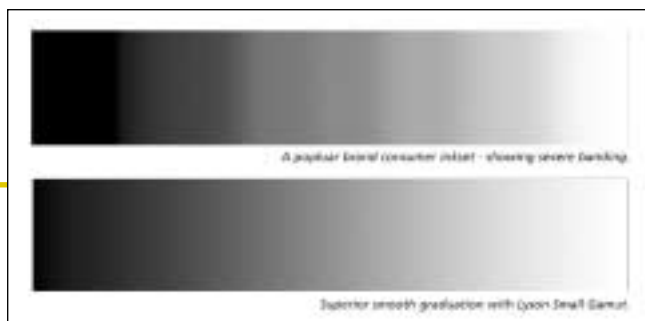
As **Lyson's main UK distributor** to the photographic market, we provide training and technical support to all UK Lyson photographic users.

This Supplement is intended to clearly lay out the advantages to using Lyson archival ink and media solutions for professional photographers – Industrial, Commercial, Fine Art, Wedding and Social – in addition to enthusiasts and other non-professional photographers, who aspire to the best print quality achievable.

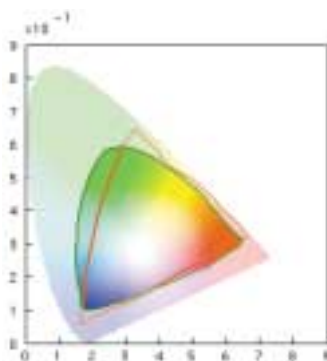
We have also included a comprehensive **Order Form**, which covers the entire Lyson photographic range. You can also **order on-line** with free delivery and same-day despatch at **www.marrutt.com**

## Why should you buy Lyson instead of the brand inkset/media combination?

**1** For colour and monochrome, with a custom ICC profile, your printer exhibits a far smoother tonal graduation from lightest to darkest densities, giving you a truly photographic smooth print, rather than the harsher digital characteristic of a non-profiled printer with brand inks, which may introduce distortions and polarisations to parts of your image.



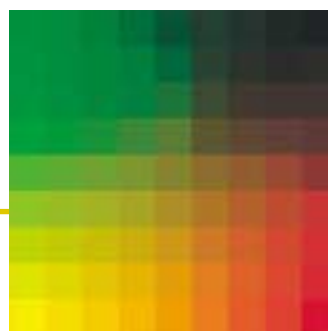
Popular consumer brand inkset



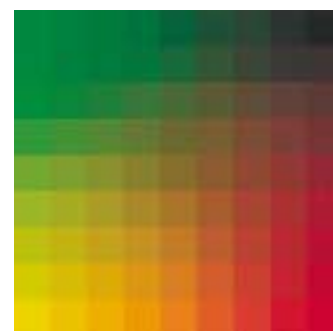
Lyson professional calibrated inkset

**2** For colour, Lyson archival Fotonic inks give you the widest possible colour range, enabling you to print virtually all the colours that Adobe 1998 RGB colour space allows, as against a more limited colour gamut allowed by brand inksets, which are primarily designed to be forgiving for printers with varying characteristics.

**3** For colour and monochrome, with a custom ICC profile, Lyson archival inks allow a far more even graduation into the darker colour and monochrome density range, rather than the 'blocking up' frequently experienced with a non-profiled brand inkset print.



Unretouched printout using a popular brand consumer inkset



Unretouched printout using correct ICC profile and Lyson colour inkset

**4** Because you are buying ink from the inkset manufacturer themselves (Lyson are the largest independent inkjet inkset makers in the world) you are able to move from using Lyson cartridges in your printer to a Continuous Ink System using 125ml bottles to reduce your ink costs to around one quarter of what they were, or even buy 1 litre replenishment inks for an astonishing saving of around 90%! These systems allow you to develop a profitable business plan built up around inkjet printing in-house: reducing or even entirely eliminating the need for lab services.



## Lyson Professional Long-life Inksets for Epson Printers (4 Channel Inksets) - Cartridges

All prices exclude VAT at 17.5%

PRINTER	Fotonic Colour		Small Gamut	Quad-Black Neutral		Quad-Black Warm		Quad-Black Cool		Cleaning Cartridges		
	Black Cart 1	Colour Cart 2	Colour Cart 3	Black Cart 4	Tri Cart 5	Black Cart 6	Tri Cart 7	Black Cart 8	Tri Cart 9	Black Cart 10	Colour Cart 11	
3000	A	45.00	45.00	53.00	45.00	45.00	45.00	45.00	45.00	45.00	13.00	13.00
740/760/800 /850/860 /1160/1520	B	15.95	19.95	22.00	15.95	19.95	15.95	19.95	15.95	19.95	10.95	16.95
900/980		C	18.95	23.95	—	—	—	—	—	—	10.95	14.95

## Lyson Professional Long-Life Inksets for Epson Printers (6 Channel Inksets) - Cartridge

PRINTER	Fotonic Colour		Small Gamut	Hex-Black Neutral		Hex-Black Warm		Hex-Black Cool		Cleaning Cartridges			
	Fotonic Blk 1	Fotonic Col 2	Sml Gam Col 3	SG/Hex Blk 4	Hex Neut Col 5	Hex Wrn Blk 6	Hex Wrn Col 7	Hex Cool Blk 8	Hex Cool Col 9	Clean Cart Blk 10	Clean Cart Col 11		
9000/7000	D	45.00	45.00	53.00	45.00	—	—	—	—	23.95	23.95		
7500/9500	D	50.00	50.00	(For the 7500/9500 these are Max Gamut Pigment Inks)								— as above —	— as above —
5000/5500	E	45.00	45.00	—	—	—	—	—	—	18.00	18.00		
EX/700/750	F	17.95	16.95	—	16.95	17.95	16.95	17.95	16.95	17.95	9.50	15.50	
1200	G	17.95	19.95	22.00	16.95	19.95	16.95	19.95	16.95	19.95	9.50	15.50	
790/870/875	H	16.95	17.95	20.00	15.95	16.95	—	—	—	—	9.50	15.50	
/890/915	H	— as above —	— as above —	— as above —	— as above —	— as above —	—	—	—	—	— as above —	— as above —	
1270/1290/S	J	16.95	19.95	22.00	15.95	19.95	—	—	—	—	9.50	15.50	
2000P	K	19.50	21.25	23.25	20.50	22.25	—	—	—	—	13.00	15.00	
950	L	11.99	11.99	—	11.99	11.99	(Individual Cartridges) - 6 Channels Total				7.99	7.99	
810/830/925/935 M	M	15.00	18.00	—	15.00	18.00	—	—	—	—	9.99	11.99	

## Lyson Professional Long-Life Inksets for Epson Printers (7 Channel Inksets) - Cartridge

PRINTER	Fotonic Colour		PhotoChrome Colour		Quad-Black Toneable		Cleaning Cartridges		
	Fotonic Blk 1	Fotonic Col 2	Phot Blk 3	Phot Col 4	QBT Blk 5	QBT Col 6	Clean Blk 7	Clean Col 8	
2100	N	11.99	11.99	11.99	11.99	13.99	13.99	7.99	7.99
4000/7600	OA	—	— 110ml:	28.00	28.00	—	—	20.00	20.00
9600/10600		OB	—	— 220ml:	48.00	48.00	—	—	— as above —

## Lyson Professional Long-life Inksets for Canon Printers (6 Channel Inksets) - Cartridges

PRINTER	Fotonic Colour		Small Gamut	Hex-Black Neutral	
	Fotonic Blk 1	Fotonic Col 2	Sml Gam Col 3	SG/Hex Blk 4	Hex Neut Col 5
6000/6100/6500/8200/ S9000/S8000/S6300/S9000 i850/i950/i9100	P	7.95	7.95	7.95	7.95
		SMALL GAMUT SET			

NOTE: For i850 a special black cart is required.



## Lyson Continuous Ink System Starter Pack

Complete conversion kit comprising donor cartridges, feed tubes etc. INKS NOT INCLUDED.

PRINTER	Starter System 1	Bottle Rack 2	CIS Drip Tray 3
Canon S9000	Q 220.00	15.00	25.00
Epson 870/890	R 190.00	15.00	25.00
Epson 1160	S 110.00	15.00	25.00
Epson 1270/90	T 190.00	15.00	25.00
Epson 2000P	U 190.00	15.00	25.00
Epson 2100	V 250.00	15.00	25.00
Epson 7600/9600	XE 495.00	—	—



Canon S9000 CIS System.

Lyson Fotonic cartridge inks.

## Lyson Bulk Inks for Continuous Ink Systems above IMPORTANT: PLEASE STATE PRINTER MODEL

For CANON S9000 only							
	Black 1	Magenta 2	Cyan 3	Yellow 4	Lt Magenta 5	Lt Cyan 6	
Fotonic 125ml	W 15.00	15.00	15.00	15.00	15.00	15.00	
Quad-Black Neutral 125ml	BA 16.00	16.00	16.00	16.00	16.00	16.00	
Small Gamut 125ml	X 18.00	18.00	18.00	18.00	18.00	18.00	
Fotonic 1 Ltr	Y 75.00	75.00	75.00	75.00	75.00	75.00	
Quad-Black Neutral 1 Ltr	BD 85.00	85.00	85.00	85.00	85.00	85.00	
Small Gamut 1 Ltr	Z 95.00	95.00	95.00	95.00	95.00	95.00	
For EPSON 2100 only							
	Black 1	Magenta 2	Cyan 3	Yellow 4	Lt Magenta 5	Lt Cyan 6	Lt Black 7
Fotonic 125ml	AA 20.00	20.00	20.00	20.00	20.00	20.00	20.00
Fotonic 1 Ltr	BB 75.00	75.00	75.00	75.00	75.00	75.00	75.00
For EPSON 2100 & 7600/9600							
	Black 1	Magenta 2	Cyan 3	Yellow 4	Lt Magenta 5	Lt Cyan 6	Lt Black 7
PhotoChrome 125ml	XA 25.00	25.00	25.00	25.00	25.00	25.00	25.00
PhotoChrome 1 Ltr	XB 120.00	120.00	120.00	120.00	120.00	120.00	120.00
Quad-Black Toneable 125ml	XC 25.00	25.00	25.00	25.00	25.00	25.00	25.00
Quad-Black Toneable 1 Ltr	XD 90.00	90.00	90.00	90.00	90.00	90.00	90.00
For EPSON 870/890/1160/1270/1290/2000p							
	Black 1	Magenta 2	Cyan 3	Yellow 4	Lt Magenta 5	Lt Cyan 6	
Fotonic 125ml	CC 15.00	15.00	15.00	15.00	15.00	15.00	
Quad-Black Neutral 125ml	DD 16.00	16.00	16.00	16.00	16.00	16.00	
Small Gamut 125ml	EE 18.00	*18.00	18.00	18.00	18.00	18.00	
Fotonic 1 Ltr	FF 75.00	75.00	75.00	75.00	75.00	75.00	
Quad-Black Neutral 1 Ltr	GG 85.00	85.00	85.00	85.00	85.00	85.00	
Small Gamut 1 Ltr	HH 95.00	*95.00	95.00	95.00	95.00	95.00	



Epson 2100 CIS System.



Lyson Fotonic Bulk Inks (125ml)

\* Special Magenta for Small Gamut six channel

## Lyson Professional Compatible Media

All prices exclude VAT at 17.5%

Weight	Description	Pack Qty	Cut Sheet Size					Roll Format				
			A4 1	A3 2	A3+ 3	A2 4	A0 5	610mm (24") 6	914mm(36") 7	1060mm(42") 8	1120mm(44") 9	
Various	Sample Media Pack	JJI 20 shts	9.95	—	—	—	—	—	—	—	—	—
220gsm	Darkroom Matt	NB 50 shts	20.00	40.00	—	—	—	—	—	—	—	—
220gsm	Darkroom Matt	NC 250 shts	90.00	180.00	—	—	—	—	—	—	—	—
300gsm	Darkroom Semi-Gloss	ND 50 shts	28.00	56.00	—	—	—	—	—	—	—	—
300gsm	Darkroom Semi-Gloss	NE 250 shts	130.00	260.00	—	—	—	—	—	—	—	—
250gsm	Darkroom Pearl	XF 50 shts	23.90	59.90	65.90	—	—	130.00	—	—	218.00	—
250gsm	Darkroom Pearl	XG 400 shts	161.00	—	—	—	—	—	—	—	—	—
250gsm	Darkroom Pearl	XH 300 shts	—	281.00	—	—	—	—	—	—	—	—
265gsm	Pro Photo Gloss	MA 20 shts	13.95	—	—	—	—	106.00	—	—	199.95	—
265gsm	Pro Photo Gloss	MB 30 shts	—	39.95	59.95	79.95	—	—	—	—	—	—
265gsm	Pro Photo Gloss	MC 50 shts	29.95	—	—	—	—	—	—	—	—	—
265gsm	Pro Photo Gloss	XJ 500 shts	260.00	—	—	—	—	—	—	—	—	—
265gsm	Pro Photo Gloss	XK 300 shts	—	312.00	350.00	—	—	—	—	—	—	—
240gsm	Pro Colour Gloss	MY 20 shts	7.68	15.20	—	—	—	—	—	—	—	—
240gsm	Pro Colour Gloss	MZ 50 shts	15.66	—	45.70	72.00	—	—	—	—	—	—
240gsm	Pro Colour Gloss	NA 250 shts	50.00	120.00	—	—	—	—	—	—	—	—
200gsm	Colour Photo Gloss	NF Roll Only	—	—	—	—	—	74.00	110.00	128.00	—	—
200gsm	Colour Photo Satin	NG Roll Only	—	—	—	—	—	74.00	110.00	128.00	—	—
265gsm	Pro Photo Satin	MD 20 shts	13.95	—	—	—	—	106.00	—	—	199.50	—
265gsm	Pro Photo Satin	ME 30 shts	—	39.95	59.95	79.95	—	—	—	—	—	—
265gsm	Pro Photo Satin	MF 50 shts	29.95	—	—	—	—	—	—	—	—	—
265gsm	Pro Photo Satin	XL 500 shts	260.00	—	—	—	—	—	—	—	—	—
265gsm	Pro Photo Satin	XM 300 shts	—	312.00	350.00	—	—	—	—	—	—	—
170gsm	Pro Matt Paper	MG 200 shts	28.95	57.95	65.95	—	—	—	52.00	82.00	—	—
170gsm	Pro Matt Paper	MH 50 shts	—	—	—	31.95	—	—	—	—	—	—
200gsm	Smooth Fine Art	MI 20 shts	18.40	37.10	56.60	72.40	—	—	—	—	—	—
200gsm	Smooth Fine Art	MJ 50 shts	39.95	85.00	129.95	165.00	—	—	—	—	—	—
300gsm	Smooth Fine Art	MK 20 shts	25.00	50.00	74.00	96.00	—	99.00	138.00	—	179.50	—
300gsm	Smooth Fine Art	ML 50 shts	55.00	130.00	170.00	220.00	—	—	—	—	—	—
300gsm	Smooth Fine Art	MM 250 shts	225.00	450.00	585.00	1050.00	—	—	—	—	—	—
310gsm	Standard Fine Art	MN 20 shts	20.50	41.00	—	82.00	—	110.00	147.00	—	179.50	—
310gsm	Standard Fine Art	MP 25 shts	—	—	—	—	199.00	—	—	—	—	—
310gsm	Standard Fine Art	MQ 50 shts	41.00	82.00	119.00	164.00	—	—	—	—	—	—
310gsm	Standard Fine Art	MR 250 shts	138.00	277.50	360.00	648.00	—	—	—	—	—	—
210gsm	Rough Fine Art	MS 20 shts	18.50	—	—	74.00	—	—	141.00	—	179.50	—
210gsm	Rough Fine Art	MT 25 shts	—	—	—	—	199.00	—	—	—	—	—
210gsm	Rough Fine Art	MU 50 shts	37.00	74.00	—	148.00	—	—	—	—	—	—
285gsm	Soft Fine Art	MV 20 shts	20.10	—	—	80.40	—	—	144.00	—	179.50	—
285gsm	Soft Fine Art	MW 25 shts	—	—	—	—	199.00	—	—	—	—	—
285gsm	Soft Fine Art	MX 50 shts	40.20	80.40	—	160.80	—	—	—	—	—	—

See www.marrutt.com/media.php for compatibility

Suitable for all Lyson inksets

### Lyson Extras

### NEW LYSON MEDIA

Printguard 400ml Aerosol	JJ	7.95	265gsm Pro Photo Gloss is now available in a 330mm (13") Roll (10 metres long)	XN	34.00			
Lyson User Guide CD-Rom	KK	7.95	170gsm Pro Matt Paper is now available in a 1270mm (50") Roll	XP	90.00	and a 1524mm (60") Roll	XR	106.00
Lyson Free Generic ICC Profiles	LL	FREE	Please state which printer		Inkset			

**Complete and FAX a photocopy of both Order Form pages to us on 01825 768841 or Post to Marrutt Digital, Bellbrook Ind. Est., Uckfield, Sussex TN22 1QL, or order online at www.marrutt.com**

Name: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Delivery Address: \_\_\_\_\_

\_\_\_\_\_

Postcode: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone: \_\_\_\_\_ Date: \_\_\_\_\_

What printers do you have? \_\_\_\_\_

Method of Payment (please tick) **Prices exclude VAT @ 17.5%**

Credit Card  Cheque (£93.94 incl.VAT per CD) (payable to "MARRUTT LTD")

Type of Card  Access  Visa  MasterCard  Switch

Card number

\_\_\_\_\_

Expiry Date: \_\_\_/\_\_\_ Issue Number (Switch only): \_\_\_\_\_

Name on the Card: \_\_\_\_\_

Signature: \_\_\_\_\_

**5** Lyson innovation has produced high-speed inkjet printing solutions, which have opened up professional standard archival photographic printing for many commercial photographic applications: wedding and portraiture, multi-prints, index and contact sheet printing. Even 'while you wait' portraiture is now possible with a desktop inkjet printer.

**6** Lyson are aware of their photographic customers' requirements for durable, smudge proof, archival gloss and lustre colour prints, which exhibit no bronzing at all – indistinguishable from a photographic 'wet print' with Lyson Fotonic inksets – which the brand pigment inksets do not provide at present.

**7** Lastly, at Marrut Digital we provide advice, technical support and training for Lyson customers. It is an unbeatable, friendly and knowledgeable service for all Lyson users throughout the UK. You can contact our **Helpline: 01825 764057**, which gives you direct access to our team and their valuable support.

## Free printer profile settings label

Apply now for your FREE printer profile label, which you stick on to your printer, reminding you of the correct printer settings, which accompany your ICC printer profile (whether generic or custom). Remember, a printer profile applied without the correct printer driver settings can render it useless. This is a good 'idiot proof' aid to good printing practice.



Photoshop • Dreamweaver • Flash • Illustrator • QuarkXPress • GoLive • AfterEffects  
Final Cut Pro • InDesign • CorelDRAW • 3D StudioMax • Acrobat • PHP • AND MANY MORE!

## UK's Best-Selling Specialist Software Training on CD-ROM for Mac and PC

Audiovisual movies by expert authors take you from beginner to advanced rapidly on your own desktop!

### FREE SOFTWARE TRAINING ONLINE

**High quality training at an affordable price.** Marrutt Digital are the **UK's largest supplier** of software training through their Virtual Training Company distribution. VTC produces over 220 software training audio visual training CD-Roms on numerous software applications, which are also accessible online. Go to [www.training-cds.com](http://www.training-cds.com) to access the first three chapters of each training course completely free of charge.

You can also buy the whole course on one or two CD-Roms with an average of 8 hours content for £79.95+VAT. These CDs are equivalent to a two or three day one-to-one training course!

**Fast track learning.** VTC CD-Roms create a training window on your computer screen, which delivers numerous audio-visual training movies in QuickTime® format. You are looking at your tutor's screen on your own desktop, listening to the commentary, just like looking over the shoulder of a friendly expert taking time out to explain each element of your software application in an easy to understand manner. This method of training has taken thousands of users from beginner to an advanced level, easily and rapidly.



**Order online for secure, carriage free, same day shipping – [www.training-cds.com](http://www.training-cds.com)**

### Adobe Photoshop CS training CD-Rom – Out Now

All new features explained in this tutorial: improved file browser, Raw file handling, professional looking contact sheet, automatic package print utility, preset quick control keys, and more.

**Become a confident CS user in no time!**



Marrutt Digital, Bellbrook Industrial Estate, Uckfield, Sussex TN22 1QL, England.

Tel: 01825 764057 Fax: 01825 768841 Email: [digital@marrutt.com](mailto:digital@marrutt.com)

[www.marrutt.com](http://www.marrutt.com)

Getting to grips with the challenging digital world!

## Richard Ball, *Insight Photography*



which I was able to shoot a few simple jobs in parallel with film, and get the feel of the medium, I am currently using a Fuji S2 pro camera for much of my work, although I have retained my film camera equipment (up to 5" x 4") and produce high level scans for editing manipulation in Photoshop. To achieve the best possible results I tend to shoot RAW files and convert them using the special Fuji utility software to 8 or 16 bit TIFF or high quality JPEG format.

In the last few years, like many other photographers, I have gradually eased myself into the world of digital imaging, after 30 years of experience working for the advertising and publishing industries, and as a freelance for a wide variety of commercial clients in a provincial practice, using film in virtually every format. Digital photography is something I have treated with caution, but I am now shooting 80-90% of my work digitally.

Starting with a very modest 3 mega pixel Olympus camera with

While exploring the use of digital camera equipment, I have also been developing the use of inkjet printing in-house to produce proofs, folio prints, and images for display and exhibition. After initially disappointing results using printer manufacturers' inks and papers, I discovered the possibilities made available using Lyson materials.

The first thing to realize is that with proper colour management from studio through to printer it is possible to achieve subtle, professional quality prints. The

difference is much like using consumer quality give away film and a high street minilab, and using professional films and pro lab processing.

Profiling is everything – a complete custom profile is ideal. Using the Lyson profiles with a well calibrated monitor it is possible to achieve superb results that really eclipse the basic approach. As many people discovered early on with inkjet, the longevity of the material was very poor. I recently discovered some printer manufacturer's prints in a folio, which were made 4 years ago, that were deteriorating without exposure to light! Lyson can offer figures that justify their claims that prints have excellent permanence in room lighting.

This is a very exciting time in the development of inkjet technology. I have been using Epson 1290 printers with the Lyson Continuous Ink System, which provides excellent quality and economy. Relatively large numbers of prints can be produced consistently in a good workflow. With the recent



appearance of the Epson 2100 printer backed with the Lyson CIS, even higher productivity is possible. I am looking forward to adding the new Epson 4000 printer to my system later this year to provide enlargements on papers, such as the new Lyson 265gsm Professional Photo Gloss. I have found over the last 2½ years that I have received excellent service and advice from the Lyson team. I look forward to future Lyson developments that will further contribute to print excellence.

I have recently started to train other people in digital imaging and I am pleased to recommend the option of using Lyson inks and materials.

Visit Richard's website at: [www.horizonsworkshops.com](http://www.horizonsworkshops.com)



## Whoever first thought of WYSIWYG had a perverse sense of humour!



Tony Riley is one of Lyson's accredited colour management specialists with a particular interest in the enthusiast and non-professional

market. As a lecturer and judge within the Surrey Photographic Association, and also a lecturer in Photoshop at North East Surrey College of Technology (NESCOL), Tony has been all too aware of the difficulties experienced by enthusiast photographers and the struggle they have to match monitor to print.

The concept of colour management is not an easy one to grasp and the vast majority of photographers find it difficult to understand many of the issues involved. After several years of endeavouring to explain the procedures to groups of photographers, it became obvious that there was a problem that was unlikely to be solved by tuition and explanation. The cost of commercially accurate calibration and profiling was also

unlikely to make these services an option for non-professionals.

In examining this market segment, it is clear that there is a definite need for colour management, but that the market tends to be primarily RGB based with a simple desire to make images look good. Printed output needs to be predictable and bear a close resemblance to the monitor image, but absolute colour accuracy and CMYK conversions for commercial press are rarely, if ever, required.

### Economic Profiling

Tony offers an economic, bespoke profiling service for colour inkjet printers and with very few exceptions the customers have been well satisfied. Many of them are enthusiastic users of Lyson inks and papers. The service is primarily web-based and requires the client to download and print a measurement target, which is then sent for assessment to Tony by post. The resulting profile file is then delivered back as an email attachment. At each stage of the process detailed instructions

can be printed from the website and Tony has gone to great lengths to ensure these are easy to follow, mostly by the use of annotated screen grabs of the various dialogue boxes involved in the printing procedure.

In making initial judgements about colour accuracy, most people tend to be primarily influenced by the monitor image, because it is both visually arresting and tangible. If the print does not match the monitor, the assumption is that the print is incorrect. In fact, it is highly likely that both monitor and printer are delivering less than accurate renditions of the data in the image file and both must be addressed separately to resolve the problems.

"Whoever first thought of the acronym WYSIWYG (What You See Is What You Get) certainly had a perverse sense of humour," says Tony. "As I travel around the camera clubs giving presentations and workshops on digital imaging it is all too plain to see that what you see is very rarely what you get!

"The printer manufacturer's

driver software is written very specifically to ensure that reasonably good results are achieved when using their own inks and papers. Even at this basic level there will be a major problem with the printed output if the monitor itself has not been reasonably well set up to ensure that the image on the screen accurately reflects the actual colour values in the image file.

"A good correction profile dedicated to a particular ink/paper/printer combination will ensure accurate print reproduction and, together with a well set up monitor will ensure predictable and repeatable performance from your imaging system," he says.

Tony has enhanced his service by offering telephone based support, specifically aimed at assisting digital imaging workers, not only with calibration issues, but also any other problems they may be experiencing.

**Printer profiles cost from £35 and technical support is available from £20 for 30 minutes.**

Email: [profiles@imagetune.co.uk](mailto:profiles@imagetune.co.uk)

Web: [www.imagetune.co.uk](http://www.imagetune.co.uk)

# Lyson CIS/Epson Users' Customer Survey

At the end of 2003, we contacted every one of our Lyson CIS/Epson 2100 customers, and many using Epson 1160/1270/1290/7000 series printers also. We asked them what profiling they used, what problems they have had, what paper finishes work well and those that do not, how their inkset/media/profile compares with their previous consumer brand combination, and whether they prefer cartridges or the continuous ink system.

You would expect a response rate of around 5% or under for a survey such as this, but we were amazed to receive a reply rate of over 25% for which we are extremely grateful, and the results make for extremely interesting reading.

*"Following your advice I contacted Neil (for custom ICC profiles) and the service was excellent. I am extremely impressed with the quality of the prints, particularly the details it provides in the shadows and neutrality of the prints.*

*"In fact, recently I have been regularly doing well with my inkjet prints in competitions at my photographic club."*

Paul White

Epson 1270, Lyson Fotonic/CIS with custom ICC profile.

The feedback e-mails were duplicated and are now compulsory reading for all Lyson photo products personnel.

In brief summary, we found that nearly half of our continuous ink system customers are non-professionals. Most of whom elect to use custom profiles. That tells us that non-professionals (RPS, camera club members and enthusiasts) share the same high aspirations for colour and monochrome inkjet printing quality at sensible cost as our traditional customer, the photographic professional.

Because of this, we intend to focus even more on the non-professional, sponsoring talks and presentations to camera clubs given by Tony Riley, who runs an excellent tutorial digital imaging website at [www.imagetrain.co.uk](http://www.imagetrain.co.uk) (See Tony Riley's informative article on the opposite page.)

Feedback from our survey – printer problems, though rare, mainly fell into three categories:

**1. Printers performing at less than 100%.** Simply contact the Lyson approved Epson service technician: **Ian Richards on 01323 511122 (Printer Sales & Part Exchange), 0906 5151094 (Technical Support) or 07866 693243 (mobile)** now offers a technical support hotline. He is often able to remedy simple problems over the telephone.

**2. Incorrect or inappropriate ICC printer profiles.** Remember that consumer desktop inkjet printers can vary quite considerably one to another when a well defined professional colour inkset is used.

Contact your Lyson helpline on 01825 764057 to ensure that you are using the correct generic ICC printer profile, and progress on to a custom ICC printer profile for your favourite paper/ink combination as soon as possible. Thousands of Lyson customers have confirmed that this is by far the best route to take to achieve the best possible imaging quality and accuracy.

We have been told that we should emphasise the advantages to using custom profiles far more than we have. Many customers say that one custom ICC printer profile for your favourite paper is essential, not just a desirable 'extra'.

**3. Applying incorrect printer driver settings when using your ICC profile.** We have produced an adhesive label for you to fill in the confirmed correct ICC profile settings appropriate to the profile(s) that you use, which you can apply to the front of your printer as a reminder. Apply for your FREE printer ICC profile label by e-mailing [lyson@marrutt.com](mailto:lyson@marrutt.com) with your full postal address simply quoting the words "FREE PROFILE LABEL".

## Inkjet media selection

To our question regarding inkjet media types used, it becomes apparent that although many customers quickly decide on particular favourites, which suit their needs, a media selection guide,

*"I am getting excellent quality colour prints. Investing in the Lyson CIS system was one of my better decisions as I have saved a fortune on ink already."*

Fred Price

Epson 2100, Lyson Fotonic/CIS with Lyson generic ICC profile.

which takes printer type and inkset into account, is needed. We have now produced a simple to follow media selection chart, which should help you in future to select your most appropriate media to achieve the results you are looking for. **The Media Selection Chart can be found on our website:**

[www.lyson.com](http://www.lyson.com)

Those using consumer brand pigment inksets express continuing frustration at their inability to produce gloss and lustre prints, which do not exhibit excessive bronzing or metamerism. A change to Lyson archival Fotonic inks and appropriate gloss and lustre finishes usually provide the solution.

**Request a sample gloss or lustre print at [Lyson@marrutt.com](mailto:Lyson@marrutt.com) for conclusive proof.**

*"I am getting on quite well with the Epson 1160 continuous ink system (with Lyson Quad Black).*

*"I have been using Lyson Photo Satin 265gsm. Most of my prints I have been really satisfied with. In fact, a few have been very successful in International Salons and national photo competitions."*

Peter Paterson ARPS

Epson 1160, Lyson Quad Black/CIS, unprofiled.

## Inkset findings

Probably the most revealing findings concerned how our existing customers compare their experience with the original brand consumer inkset cartridges to their new Lyson inksets in either cartridge or Continuous Ink System (CIS) form:

Around a third of Epson 1160, 1270 and 1290/Lyson inkset users have opted to convert to the CIS system and almost every Epson 2100 Lyson user has converted to the Continuous Ink System.

Those that replenish with 125ml bottles of ink report savings of around 75% from what they used to pay with cartridges. Those replenishing with 1 litre bottles of ink report an astonishing 90% saving from their previous cartridge ink costs.

To be fair, we have to report that many customers would have preferred us to be more positive in advocating the use of custom ICC printer profiling when using

*"The results are superb, with natural, rich colours and wonderful tonal range. I find the predictable high quality of the prints, even without the custom profiling, so convenient. Economy-wise, after the initial outlay, the 125ml bottles seem to last forever!"*

Gareth Parry

Epson 1290, Lyson Fotonic/CIS with Lyson generic ICC profile.

Lyson inks and media.

Our three expert ICC custom profile providers, Neil, Udo and Tony, confirm the surprising variance in printer ink rendering characteristics among desktop inkjet printers of the same model. They see this when they analyse the thousands of printer test targets, which are submitted to them.

We advise you to use the Lyson free generic profiles as a starting point, to enable you to practice the installation and use of ICC printer profiles, to help you in the early stages to decide which is your favourite media.

**Use the Lyson Technical Helpline – 01825 764057 – to make sure that you are applying and using the profiles correctly.**

Once you have decided on your favourite papers, get a custom ICC profile or two to achieve accurate colour and give you the best possible image performance from your printer. Your printer may give incorrect colour and distort values until a custom ICC profile is correctly created and applied.

Very many of our customers have remarked that the small cost of a custom ICC profile is money well spent and pays for itself many times over. It is essential to turn your standard consumer inkjet printer into an accurate professional colour device.

In summary, the Customer Survey reminds us that we must continue to help non-professionals in their search for professional quality inkjet printing; to explain our products in easy to understand terms; to emphasise the need for custom ICC printer profiling to achieve really professional results.

## Lyson Technical Helpline

**If you have any problems whatsoever in satisfactorily using Lyson inks and media with your printing setup, please do not hesitate to call the Lyson Technical Helpline on: 01825 764057.**



Joe Bangay



Philip Westwood



Nigel Waller



Callum Bennetts



Stephen Benzie



Brian Brown



John Langridge



Richard Ingle



Cliff Carter

Gareth McDonald, "Mr. Lyson" to people in the Photo Industry, pours out his thoughts on today's inkjet printing processes and problems.



## One of the biggest problems with things digital...

One of the biggest problems with things digital, specifically inkjet printing, is that we're all still learning. Most of us have been used to using and abusing silver halide potions for years whether professionally or as a hobby.

We expect to immediately come up to the same level of knowledge and experience in the inkjet world as we have in the darkroom where we've spent years of sloshing around gaining our experience. This applies to manufacturers and users alike.

As "Mr. Lyson", I am asked how a certain product will react to a certain use and, after a certain amount of coughing and throat clearing, I have to admit that I don't know, fairly often. It's because I've never come across anyone wanting to do that before!

Whilst all our products are thoroughly tested in the laboratory and then on test sites, customers still seem to think of something we didn't! This happens much less in the world of silver halide, because people have been doing weird and wonderful things there for so much longer that the likelihood of someone having done it before is so much greater.

The other thing that clouds the issue is that different people subscribe to different theories. In the case of manufacturers, this is often driven by what their products do or don't do. This means that a customer can ask two different companies the same question and get two totally different answers. Very confusing.

Although there aren't any hard and fast answers to some questions, because the products haven't been around long enough yet, there are many scientific facts about inks and papers that can't be argued with

### Dyes v Pigments

Two of the biggest issues around at the moment are: a) dyes or pigments and b) light stability. Obviously the two are closely intertwined, but the choices you make will have a massive impact on the types of prints you can produce. It may be worth asking yourself

what types of prints you want to produce before looking at the products available.

### Here are some 'facts':

**What is the difference between a dye based ink and a pigment based ink?**

A pigment ink has tiny particles of colour pigment suspended in the base solution (unless specifically for outdoor use, inks used in the photographic world use a water based solution), whereas in a dye based ink the colour of the ink is achieved by the solution having dye molecules dissolved in it.

**Neither type of ink is inherently waterproof as they are both water based liquids. Whether a print is 'splash proof' or not depends on the coating of the paper the ink is put on to.**

### Light stability

**Now look at some of the claims made for dyes or pigments:** one of the biggest reasons cited for using a pigment based ink is its ability to produce more light stable images. But the statement, "pigments are more light stable than dyes" is not necessarily always true. A point often ignored by people is that colour film (and chromogenic monochrome films such as Ilford XP2) and paper use dyes to create colour.

The longevity of a silver halide image is often held up as the standard we are all trying to achieve and it's based on dyes.

The point is that it's not as clear cut as the statement above. It depends which dyes and pigments you are talking about and what paper you are putting them on to.

**The figures quoted for the light stability of different products cannot always be compared directly to each other as there are no standard testing criteria.**

It must also be remembered that the light stability of an image isn't only determined by the ink but is a combination of the ink and the paper it's printed onto. This is why Lyson produce a range of papers too.

*Continued on back page...*

## things digital... *Continued from page 7*

Light stability is tested using accelerated light testing techniques. Basically, the test image is exposed to very high levels of light to see how long it takes to fade. The theory is that exposing the test image to much higher levels of illumination than it would ever normally encounter when hung on someone's wall will make it fade much faster and then these times and illumination levels can be translated into equivalent 'hanging on the wall times'.

The only alternative to this is to hang the print on a wall in a typical level of illumination and then go and make yourself a cup of tea whilst you wait for the image to fade. Whilst this would give very accurate fade times it would have to be a very large cup of tea as you may be waiting for 100 years! Accelerated light testing it is then.

The problem behind all the figures different manufacturers quote is that there isn't an industry standard for testing procedures so it's very hard for customers to compare one product against another. Dyes and pigments fade at different rates depending on the

level of illumination they are exposed to and the relationship between the level of illumination and the time exposed is not a linear one.

If the relationship was linear then a print hung on the wall at a light level of 500 lux would last 100 times longer than a print exposed to 50,000 lux in an accelerated light testing unit. This isn't the case although many light stability figures are calculated using this assumption.

It is made even more complex by the fact that pigments and dyes behave very differently. The different rates at which they fade at different levels of illumination shows a behaviour not unlike reciprocity failure in silver halide emulsions.

Different manufacturers use different levels of illumination to test their products so it is impossible for the customer to compare like with like. **It seems that pigments fade slower under very high levels of illumination than dyes but at normal levels of illumination the rates of fading between a light stable dye and a pigment much closer.**

This may be why pigmented inks show disproportionately better light stability figures than dyes under accelerated light testing (very high levels of illumination). It may also point towards why manufacturers of pigmented inks carry out their accelerated light testing under extremely high levels of illumination. So, use pigments if you are producing images for outdoor or window display and don't need to use lustre or gloss paper, but use dyes if you are producing images for albums or normal indoor display and don't want to be restricted in your paper choice.

### Further facts:

**Pigments do not work well on glossy papers and are only passable on many lustre papers. Dyes work on a wide range of papers from fine art to high gloss.** This means if you want to produce high quality gloss or lustre photographic type prints without any bronzing you cannot use pigmented inks.

Dye based prints always look more vibrant than pigment based prints. It is often quoted that this is because a dye based inkset always has a greater colour gamut than a

pigmented inkset. This is not always true but because the dyes reflect far more light that falls onto them back to the viewer than the pigments the print looks 'brighter'. It isn't only to do with the colour gamut of the inkset.

### The way ahead

**To help photographers choose the correct Lyson products for their needs Lyson has a chain of specialist dealers throughout the UK.**

These are the Lyson Centres of Excellence. All have demonstration areas and specially trained staff to help select the most appropriate Lyson products for you and then to help you get the most out of those products.

They are all looking forward to hear what weird and wonderful things you want to do with your inkjet printer!

If you would like to learn more about some of the technical issues covered here go to [www.Lyson.com](http://www.Lyson.com) (Technical) and download the two articles:

'De-Bunking The Inkjet Myths' by Tony Martin, one of Lyson's directors, and

'Fade Resistance. An Overview' by Jeff Ball, Lyson's MD.

## Lyson free offer

### Lyson Test Print for Evaluation

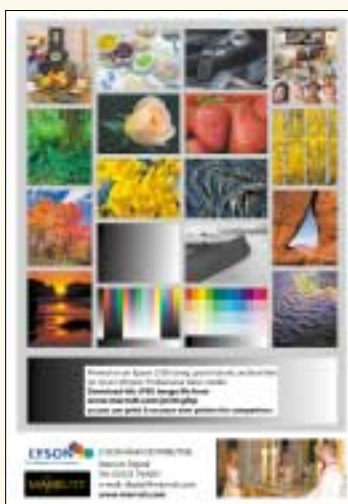
To test your printer for colour accuracy and image quality

Apply now for your FREE A3 smudge proof archival gloss colour inkjet print, which we will post to you. Once you receive the print from us you will be given instructions on how you will be able to download the same digital image file for you to print on your own printer for comparison.

The A3 print opposite is produced on the Epson 2100, using the Lyson Fotonic dye-based inkset and Lyson 265gsm Professional Photo Gloss for a

durable, smudge proof, long-lasting high-gloss print, which is as close to a darkroom wet print as it is possible to produce. It exhibits no bronzing or other tell-tale signs of being an inkjet print.

This ink and media combination is used by numerous social and wedding photographers for portraiture, wedding albums, multi-print packages and package prints, and is the most popular combination for professionals.



### FREE Lyson Test Prints for evaluation

Please tick which print sample/s you would like to receive:

- Lyson Fotonic high gloss colour print
- Lyson PhotoChrome colour print
- Lyson Quad Black toneable monochrome print
- Lyson Small Gamut toneable monochrome print

Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

Telephone No. \_\_\_\_\_

Printer(s) Used \_\_\_\_\_

What Inkset(s) do you use at present? \_\_\_\_\_

What Inkjet Paper(s) do you use at present? \_\_\_\_\_

**Photocopy and Fax back to  
Marrutt Digital on 01825 768841.  
Tel: 01825 764057. E-mail: [digital@marrutt.com](mailto:digital@marrutt.com)**