



February Newsletter



Laser Guided

When is the best time to invest in Computer to Screen?

Direct to Screen can fall into 3 categories

- Inkjet
- Wax
- Laser

As to which of these is best is like asking which of your children is the favourite! (p.s. its the password child)

If we are currently using an inkjet printer which sprays a small droplet of black waterbased ink onto a polyester coated film, maybe it's time to upgrade?



If we are using Inkjet to create our magic shadows on the mystical light sensitive emulsion, we could be forgiven for thinking we are first generation imagers. we are in fact at best Gen 2!

Gen 1 was the use of an old fashioned Agfa Camera, a dark room and lots of dubious chemicals. Bromide was definitely used!

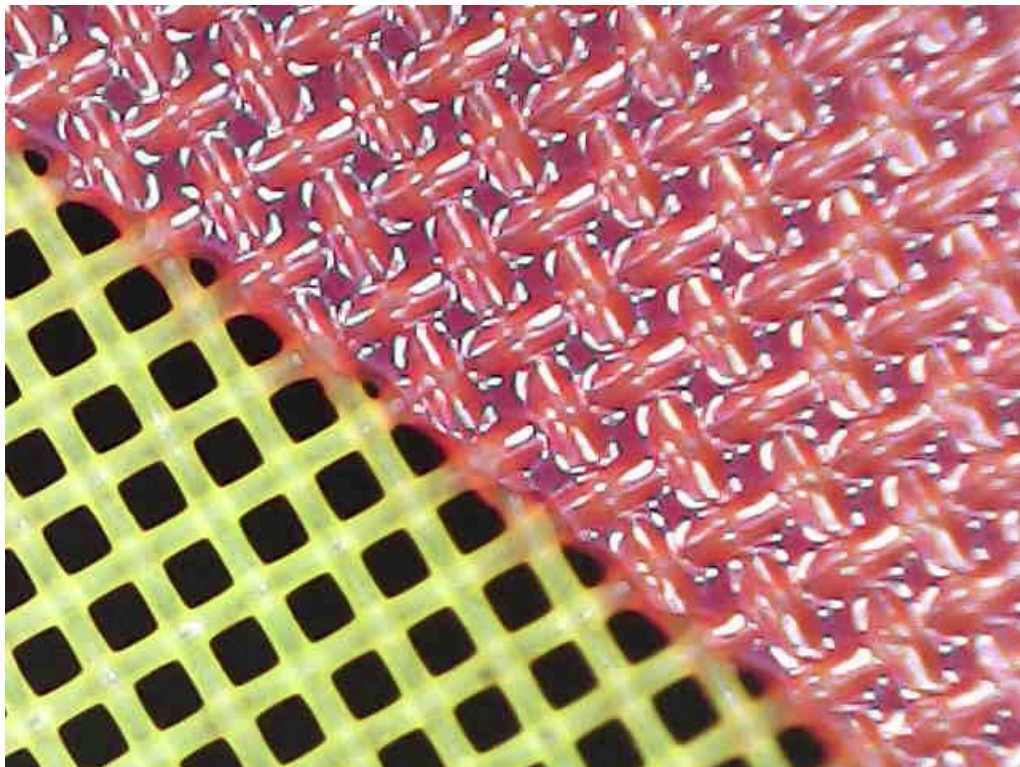
We would draw an outline or cut from rubylith and then process each colour in a red lit room, like a deniable trip to Amsterdam.

Next came the Inkjet printer! a revolution in film production. The reprographics house feared the onslaught of this cheap little home printer, they had just spent



The Clint Eastwood of toilet paper. it was tough and took no shit.

250k on a new imagesetter and here you are with a cracked copy of Photoshop 3.0, knocking out brownish films on tracing paper that looked like it belonged in a Yorkshire school toilet (If you remember Izal you are really old! a toilet paper that didn't wipe it just moved!)



Gen3

Once we had mastered one type of output, the wondrous engineers decided that they wanted a bigger slice of our hard earned cash, and came up with

CTS

Computer to Screen.

The graphics guys, those rich cousins that always seemed to have the best technology at least 10 years before us lowly Textile printers, had been using a direct approach for the longest time.

Inkjet technology was used to create a rich dark shadow, direct onto the surface of the emulsion using a glorified version of a cake printer!

This direct approach had lots of advantages! it removed the need for a plastic carrier, it removed the need for a vacuum to hold said piece of plastic onto the surface of the screen, and it removed a major area of contamination as we were no longer using glass that resembled the windscreen of a truck that just drove across America with no wipers! Add in the fluids that extrude from the screen goblin and we now find we need a hazmat suit just to clean the glass.



Now we have removed the films from the process, another advantage was slowly appearing.

Store and Recall

One advantage that all systems share is the ability to digitally store and recall images. The old analog printed out transparency, now becomes a digital file that is stored, catalogued, and can be recalled and searched with superhuman

accuracy. For those of us old enough to remember the ‘Filing Cabinet of Doom” a space where we would store all previous films, this grey portal was a relative dimension in the normal fabric of space time, a set of 6 immaculate films would be placed in this ubiquitous receptacle on a Monday, only to be transformed into 5 or 7 dog eared scuffed pieces of old cling film by Wednesday, and if you were the one to search here for a set of films you would become affected by the strange warping of time associated with this filing cabinet from another Parallel Universe. Easily losing hours searching for a film that you could have sworn you put in here only one hour ago.

Workflow is now streamlined, the removal of contamination has smoothed out the workflow, as we no longer need to take a paintbrush to fill in the squished flies and bogeys that have been perfectly reproduced to a quality the Natural History Museum would be proud of.

Image Placement

As soon as we relinquish control of the placement of the image and we let the cold digital mathematical brain of the computer decide where the image should be placed, we acquire a new power-up we did not realise we needed. The accurate placement in relation to a standard point on the screen will now give us a constant that was not present before, we can utilise this new gift on the press itself. Using the same standard placement point, we can reduce (or eliminate) the time and skill used to align multiple screens on press. Registration of the colours now happens in the dark room.

Progress

Once we had mastered spraying little droplets of ink onto the emulsion to create our black separations, we progressed to a second method.

WaxJet

The idea of spraying hot wax onto a screen was a strange one, but these printers had all of the advantages of the inkjet with one clear advantage. Wax was heated up, squeezed through 255 tiny nozzles and landed onto our freshly coated screen, when this hot wax was drizzled onto the cold skin of the screen like a scene from a Fifty shades of Grey movie, it solidified instantly. This eliminated dot gain or spread that was evident when dripping a droplet of wet waterbased black ink onto a screen or film.



Lasers

Laser to screen, this is the New Kid on the Block (an old reference that may need explaining 'Step by Step'.) this process uses light to 'write' the image directly onto the emulsion.

Now we have all the advantages of the direct method but we have completely removed the consumable aspect.

We are writing with light, hitting our light sensitive emulsion with just the right 405nm of light to cure it. No Ink, No wax, No carrier film!

Three different types of LTS Laser to Screen exist.

- * DMD

- * Array

- * Raster Plate

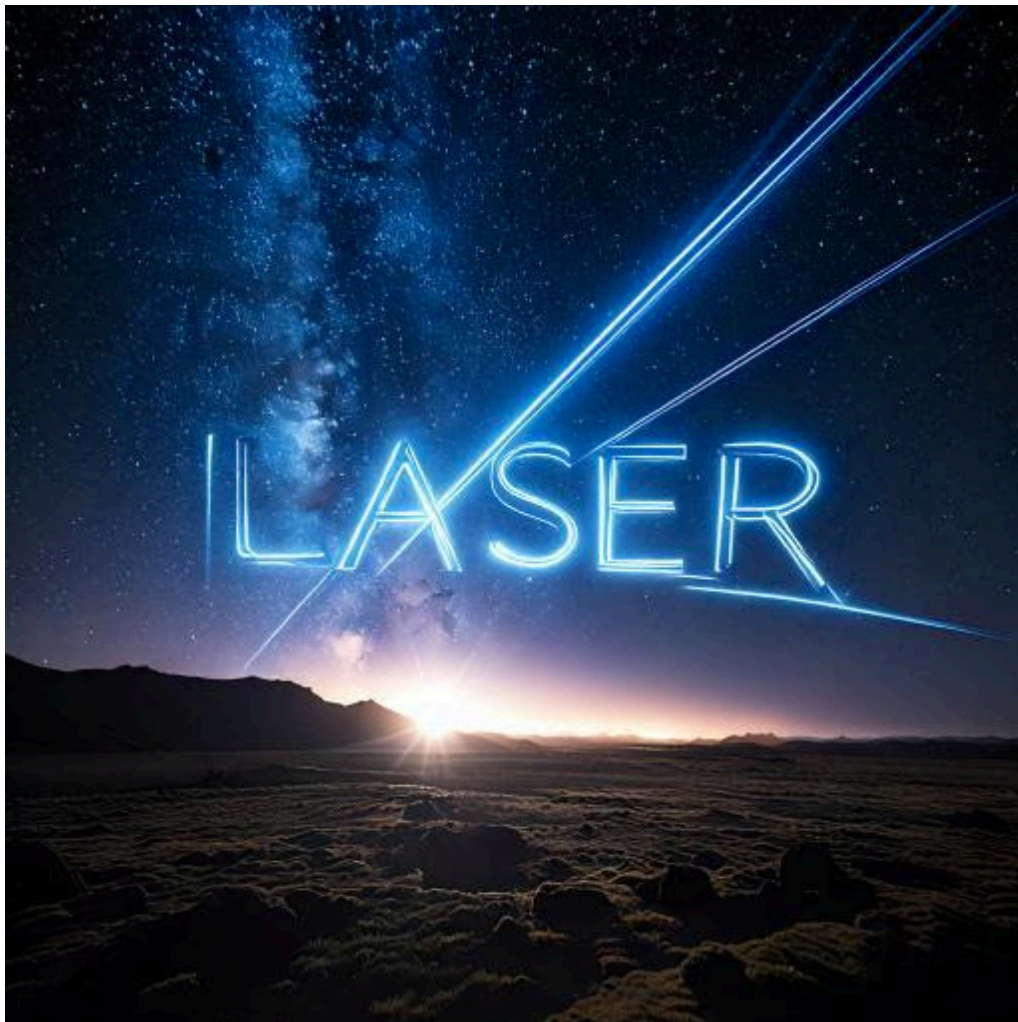
This system is the future as it reduces one step in the procedure and has zero consumables or waste. It also lets us have resolution up to 10,000 dpi!

So that's it right? we have peaked?

in the background slowly bubbling away is the next generation.

D2M

This is the result of leaving a 3d printer alone in a dark red room filled with the heady scent of hot wax and a fresh tub of emulsion.



The new technology is still in its infancy, but it basically prints the emulsion and then cures it all in one go. We keep the high resolution and we remove the need for light sensitive rooms or even developing for that matter.

We still need to buy chemicals to keep this machine running and the reclaim issue needs better resolution (imaging pun). It is certainly one to watch.



©2025 Palmprint Consultants Ltd | WF2 8NN

Like Tweet in

Web Version Forward Unsubscribe

Powered by
GoDaddy Email Marketing®