

***Note to editors: high resolution images are available on request***

## **Move Over Darling – iiyama LCD vs. CRT monitor review**

*by Andrew Edwards, Digital Applications Specialist, ArtSystems*

**Designers and graphics workers have traditionally favoured CRT screens over LCD monitors. Early LCDs were crude devices that have left the view amongst the graphics community that they simply are not up to the job.**

**Recent advances in technology have challenged this accepted wisdom. Now is the time to take a second look – you may be as surprised as I was.**

More than a decade spent in the graphics industry applying colour management to digital workflows leaves you a little numb to demonstrations. As a sceptic, I have to admit that I looked forward to sending the nice man from iiyama away with a flea in his ear and yet, by the end, the grip I had on my trusted CRT had loosened considerably.

The LCD in question is the new ProLite H1900 19" TFT Monitor. It was compared side by side with an iiyama Pro 454 CRT, one of the better CRTs currently available.

The Prolite H1900 comes with a plethora of advanced features as you may expect of a monitor designed to tempt the CRT die-hards in our industry. I will leave you to check the website for all the technical details, as we are chiefly concerned with a simple question: Can this monitor compete with, and supplant, high end CRTs in the graphics, printing and prepress industries?

The answer is yes. It is, however, not an unconditional yes.

The CRT was set up with a good profile in controlled lighting conditions using a Gretag Macbeth Eye One calibration device, with Eye One Match software. The new ProLite H1900 was set up alongside using the same Video Card, attached via the D-Sub analogue input. The LCD monitor was profiled using the same set-up as for the CRT and specially selected test files were viewed using Photoshop.

I was immediately surprised by the quality shown by the LCD. I was expecting it to be poor in comparison to the CRT, but not this poor!

Highlights were blown out and the shadows were even worse. At about 85% along the curve toward the point where the CRT monitor achieved maximum density, the shadows hit the buffer sending any further available detail into the abyss. Gradations were not worthy of the term, rendering the monitor using a D-Sub connection a poor relation to the CRT as far as the graphics industry is concerned. Unfortunately this goes for all LCDs running from an analogue output source.

The colour was nearly neutral, however, with a slight bias toward the cooler end even after profiling. The gamut was significantly smaller than the CRT with over-saturated colours lacking subtlety and depth.

If looks are important to you, then expect a handsome looking device. The excellent stand and slim bezel are a joy to behold.

However, the monitor buttons are poorly labelled – black stamped writing on tiny black buttons must look very chic to a designer, but are awkward to use. The “auto adjust” button is also placed near the “off” button and on shutdown a user may press it by mistake requiring the monitor to be re-profiled. I suggest recording the various settings you arrive at after profiling, so that these can be re-inputted after such a mistake.

At this point I began to think about lunch...until the gentleman from iiyama swapped the cable from analogue to digital...

Like many people I am well aware of the fact that a good video card with a digital output will out-perform an analogue connection.

I have used good and poor LCDs on both output types and have always remained lukewarm with regard to image quality. However, it is not until you run a controlled comparison that you really appreciate the difference between the two and moreover, just how far LCDs have come in comparison with CRT monitors.

With a DVI connection the new iiyama LCD is a revelation. All of the subtlety of colour and smoothness of gradation came racing back, allied to excellent clarity and sharpness. The viewing angle is very wide and despite attempts to move around in my seat to try to catch it out there were no shifts in image quality. The backlighting was also impressively even.

True, the image tone is still very slightly cold in comparison with the CRT even after calibration. However, to many eyes a calibrated CRT has certain warmth, which is often unwelcome outside the professional photographic market. The cooler white of the monitor matches modern inkjet papers well, especially those containing optical brightening agents.

These particular comments are, of course, a matter of taste as our eyes see colour differently. For all intents and purposes both calibrated monitors have good neutral image tones.

It is also true that shadow detail is still marginally better on the CRT. I could just make out a difference between the two on specially designed test files but on every day files the difference was all but invisible. For professionals who use a monitor for graphics work, the performance is excellent and more than enough to satisfy their needs.

Once you add the other benefits of the LCD: space and weight saving, lower emissions, lower running costs, video walling etc, the argument starts to gain real weight.

I am at long last waving goodbye to my trusty iiyama CRT for the ProLite H1900. As long as this monitor is used with a good DVI equipped graphics card and professional profiling equipment, it will give you both the image quality you have always enjoyed and all the benefits of a modern, top quality LCD monitor.

For a long time I have glanced enviously at good looking LCD monitors on other peoples desks, admiring all the “real estate” that is available to them. Now I can join

the club without the fear of having my credentials as a graphics professional questioned by the sight of an LCD on my desk that isn't a 30" Mac Cinema screen!  
**Ends 989 words**

*For further information*

Editorial queries to Vanessa Burrows on 0870 224 0762 or  
vanessa.burrows@artsystems.ltd.uk

Date: 13.07.05 Release ref: AR05072

Art Systems Ltd, Unit 10-12 Glaisdale Point, Glaisdale Parkway, Nottingham. NG8 4GP

Telephone: 0870 224 0762 Fax: 0870 224 0763 Website: [www.artsystems.co.uk](http://www.artsystems.co.uk)

**About Art Systems**

From its roots in 1987 Art Systems, the Nottingham-based specialist systems distributor and service provider, has seen significant growth in the past eight years. The company serves the CAD/GIS, graphics, signage and AV markets (through specialist value added resellers) with large format imaging and printing solutions from market leading manufacturers such as HP, Summa, Mutoh, Onyx, iiyama and Context.