Windows Painting

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It's taken awhile, but pixel-pushing for the DOS/Windows world has finally come of age. There is a range of offerings with different capabilities and price-points. The products are complementary -- to each other and the vector/drawing software (such as Corel Draw) that has been around for years. There are some puzzles; they are trivial.

This is the most exciting thing to happen in computer picture-making in many moons. Bet on it: Your graphics work will change as a result.

PC-family graphics has been a "going jesse" for about five years. Powerful drawing programs, made viable by Microsoft Windows, delivered all the neat features associated with other platforms, at a better overall price/value, and increasingly, with better features. But there are things drawing programs simply don't as well as paint programs can do them. An artist doing sophisticated illustration -- like Corel Draw user Tom Nimen -- got those effects on his PC platform through the contortions needed to switch between a Windows configuration and an expensive DOS configuration supporting Time Arts Lumena. The results were super, but this is a lot of work compared to what a Mac or Amiga user went through to get similar results. It is a testimonial to the greater price/value and competence of DOS/Windows based graphics solutions that people like Tom went that route.

The current crop of low-cost PC-compatibles, with more sophisticated graphics display capabilities -- and the now-truly-vast size of the installed base -- has encouraged the paint-makers to come over. The result is lots of powerful bit map-oriented software, sometimes at check-out counter prices. Because these are by and large well-behaved Windows programs, they work well with other programs in the Windows environment; you can mix and match capabilities almost ad lib.

"Paint" programs come in two general varieties: Image-editors, like the Corel Paint program, are really intended to enhance scanned images. Zsoft's PhotoPaint (from which Corel Paint is derived -- and to the newest version of which Corel Paint users can upgrade at reduced cost...) and CA-Cricket Image are good examples of the low end of this category; Micrografx Picture Publisher and Aldus PhotoStyler hold the high ground. Micrografx's new offering, PhotoMagic, is a mid-range product ## priced like the low-cost software, but benefiting from a wide selection of Picture Publisher's high end tools. Image-editors generally include a routine to manage the process of scanning, as well as the enhancement of the result.

True paint programs focus their attention on the actual painting process. Support for scanned images is incidental, and the program generally does not manage the scanning process. These programs focus on delivering tools -- vast numbers of them. They consciously aim to provide all the kinds of things an artist would want in a studio, and to providing support for the kinds of techniques artists use. Most especially, a great paint program aims at providing as much of the "feel" of a non-computer, emulated tool as is possible. The best example of a modestly-priced paint program is CA-Cricket Paint; we won't call it "low-end," because the modest price reflects a recent (and temporary...?) dramatic drop in Computer Associates suggested-retail-pricing, rather than any diminished capacity. The current high-end product has got to be Fractal Design's Painter; it's "feel" is remarkable -- not least because of its support for pressure-sensitive tablets from Wacom and Calcomp.

Graphics applications in general need all the horsepower they can get; paint programs, which are working with very large, complex bit maps commonly in the multimegabyte range, are all the more demanding. Or at least, that's the common wisdom. In testing a range of bit map programs for this and other stories, I've discovered to my great surprise it ain't necessarily so.... My favorite testbench machine is a modest 8mb, 25mHz 386 machine (in fact, it is rated somewhat slower than other machines in its class) with a good-but-not-great 8-bit color adapter. This is the machine that drives the color-adjustable NEC MultiSync 4FG and the Polaroid CI-5000 Digital Palette film recorder -- items I think essential in a graphics boutique run on a tight budget. It is also the station with the CalComp DrawingPad tablet -- a favorite because of its tuck-in-the-lap size, as well as its pressure-sensitive cordless stylus and cordless puck (you need both, and being cordless, can switch ad lib.).

Some of the software I used in prepping for this story clearly wanted more machine power. For example, CA-Cricket Paint worked fine, but slowly, on the 386 machine; it performed handily on a 486 machine. >added: On the other hand, CA's design team has done a very good job developing advanced functions in a painting environment. For example, text added to a painting is taken from ATM or TrueType outlines (others supported under Windows can be used as well) and brought in as nicely anti-aliased bitmaps -- jaggies eliminated. Making friskets (or masks) is also automated to a fare-thee-well: Turn on the mask tool from the dashboard and choose the type you want. Select a start and stop point to represent the range of the object's colors to be changed and accept the choice; those elements are masked; fill that area ad lib. Or pick a particular color to protect; it is separately masked, and the fill used in the previous step will pass over areas in that color. A special touch to this is that textures and shading present in the original are carried over to the new color scheme automatically.

On the other hand, I was impressed with the performance of Fractal Designs' Painter on the 386 box; I did not find myself hanging around for things to happen. Painter lacks many of the neat automation elements in CA's Paint. On the other hand, its tools seem to me more akin to what I learned to use in the long-gone days of my youth, when I spent a couple days a week in the studio.

I have been similarly impressed with the performance of Micrografx Picture Publisher on the same (by today's standard, low-end) machine. A simpler image editor -- like that in Corel Draw Etc. or CA-Cricket Image, or Computer Presentations' now-venerable ImagePrep -- will do well enough for the basics; I use these for quick scanning jobs on my relatively low-end scanner-station machine. But for detail image-editing, Picture Publisher provides the correct combination of "gross" and "fine" editing tools.

In short, more power is nice, but with some careful choice, it isn't mandatory. This means the money you've been saving to upgrade your system can be spent on neat peripherals (like the crisp, low-emission, etc. NEC MultiSync FG series monitor or a fancy digitizing tablet with pressure-sensitivity, like the CalComp Drawing Pad).

So the software is cheap enough, and it represents what the bit-heads call a "neat hack;" what is the cash value of this software? Quite simply, better pictures result when bit map editing and painting are at hand. A simple example: You want a smoothly graded background. Corel Draw will do this -- but when you print out the result, you will very likely find very distinct bands of color, one shade after the next. Drawing programs, after all, know a good deal about filled geometric shapes.... Now make a graded background in a bit map program: The color ramp is smooth as a newborn's bottom.

Detail-work is often easier -- no small matter when importing images. It is not just a matter of adjusting color and contrast; fine quality work usually requires some hand-editing of an image. But why stop with pixel-editing scanned images? There are times when detailed adjustment of shading -- using the computer equivalent of an airbrush, or the like -- is a must.

There is down-side: Drawing programs are fairly straightforward tools. Learning to do things with them is not particularly difficult (learning to be elegant with them, of course, is another matter entirely). Image-editors are also fairly straightforward, though a full-featured product such as Picture Publisher takes time to learn, because it is very rich in capabilities. Paint programs are not particularly straightforward, and take a good deal of time to learn. This seems to be a function of the way they are intended to work -- as much like the tools an artist uses as is possible. The result is enormous power and flexibility -- at the usual cost of corresponding complexity. If you decide to add a paint program such as CA-Cricket Paint or Fractal Painter to your graphics tool kit, be prepared to spend a good deal of time playing with the software, to learn how best to use it in your special situation.

So much for the argument -- let's get to the facts. A job called for backgrounds for newspaper ads. The

concepts involved two kinds of images -- some photos laid on a background, and some drawings of Chinese opera masks. Chinese opera masks are makeup, not masks per se; it made sense to create the basic masks in Corel Draw, but do the final detailing in a paint program, then do the conversions from color to grey-scale and the composition on a smoothly-graded background in an image-editor. Why mix three programs, when a fair job could be done in any one of them? The operative word is "fair." Each of the graphics programs brought different strengths to the project; each let something happen that the others didn't do quite so well.

For the ads using photos, I chose Picture Publisher; it is the image-editor I know best and it has a very powerful set of tools. I scanned the photos needed, converted them to grey-scale, masked the actual image needed and pasted it into another image with the smoothly graded background. This composite bit map was taken into Corel Draw for lettering. The example shows the test runs; the final version needed Chinese lettering -- properly written by a Chinese, then scanned and traced to make Draw objects to make them more amenable to use in the final ad.

To make the masks, I created a vaguely face-shaped oval in Corel Draw, then laid out the large blocks of color. Each basic mask was converted to 24-bit Windows .BMP format (a more compact format than 24-bit TIFF) using SuperPrint's bit map driver (a neat tool, and generally faster than Corel export filters). I then opened it in Fractal Painter, where I added lines and other details. In fact, most of the painting could have done in Picture Publisher, but Painter provides a 12-color active palette, against Picture Publisher's two active colors; Painter is better tuned to painting, while Picture Publisher is better tuned to retouching.
Picture Publisher came back into play when the masks were composed. Open the .BMP file and convert to grey-scale; create a background area; mask the image and copy the desired portion to the new background, blending the edges. Take the background back into Corel Draw to finish the ad with copy.

The final images were printed out on the LaserMaster-WinJet800-equipped Hewlett-Packard LJIII -- using nice glossy "coated stock" paper, the result was quite acceptable without the intermediate step of processing on a service bureau's Linotype.

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Word count: approximately 1700 words

Products mentioned and press contacts:

Fractal Painter - Cori Garnero 408-668-5300

CA-Cricket Paint - Ilona Andrea Mohacsi or Bob Gordon 516-342-5224

Micrografx Picture Publisher - Grant Wickes 214-234-1769 x6287

NEC MultiSync 4FG monitor - Beth Anderson (Golan Harris) 312-836-7100

Calcomp Drawing Pad - Kristy Sager (Allison Thomas PR) 818-981-1520

LaserMaster WinJet800 - Bill Neuenschwander 612-943-3426