

SCANNERS

Epson makes it BIG and prices it low

Expression 836XL

BY SHANE STEINMAN

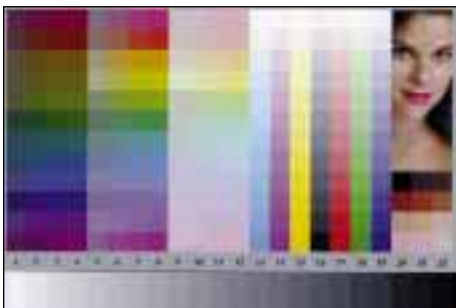
OVER THE YEARS, I'VE SPENT HUNDREDS of thousands of dollars on scans, scanners and scanner operators. I've also sold over a million dollars worth of scans to my clients. As a result of that, I've come to know and accept the reality that all scanners are not created equal. However, I've also come to realize that some scanners are more equal than others.

A few years ago, I set out to purchase a tabloid format flatbed scanner with fairly good dynamic range that would supplement the small format

Here's what the Expression 836XL looks like — descreened from the brochure.



The Kodak IT8 Scanning Target is included in the Expression 836XL package.



drum scanner which I already owned. I figured that this would give me a greater degree of flexibility, and would probably only cost a couple of grand. I was bang-on with respect to the flexible part, but way off on the cost of such a solution. I ended up buying the Scitex SmartScan 342L for just under \$100,000.

Had I waited a few years, I could have saved most of the initial purchase cost. On the other hand, I wouldn't have sold hundreds of thousands of dollars worth of scans.

Everything boils down to timing.

So, let's take a look at a scanner whose time has finally come. The Epson Expression 836XL, with its 12.2" x 17.2" scanning bed, represents the missing link in the desktop scanning evolutionary model.

Designers have long been able to acquire reasonably saleable scans from the wide array of letter-size and legal-size scanners that have flooded the market in recent years, but getting that extra square area from hardware developers has been difficult. This has been due mostly to the expense and availability of high resolution, high-sensitivity CCDs suitable to graphic scanning applications.

SIZE ISN'T EVERYTHING

Of course, you can produce a poor quality large scanner as easily as you can make a poor quality small one.

Fortunately, Epson has seen fit to imbue its newest scanning release with many superb qualities and a host of software for tuning, managing and driving your scanning efforts into the enviable arena simply known as profitability. One of the key factors that contributes to this is the low initial outlay. I mean, the damn thing

sells for under \$4,000 — and that's *Canadian* dollars — making it easy to make your money back, never mind the fact that you've opened a new avenue by doing work you couldn't touch before.

Let's have a show of hands. How many of you out there have been scanning on a smaller bed and stitching two halves of your scan back together in *Photoshop*?

Oh, that many?

THE MECHANICAL STUFF

Able to capture data at 12 bits per channel, the 836XL can theoretically retain over 68 billion colors — or 4,096 shades of color per channel. Scans are accomplished in a single pass. Optically, the image is scanned at up to 800 x 1600 pixels per inch, with interpolated resolutions available up to 4,800 ppi.

The 836XL boasts a dynamic range of 3.3 which gives you good tonal representation and excellent color accuracy. The Dmax (maximum density) for shadow penetration has been calculated to 3.4, which is very respectable. To give you an idea of what these numbers mean, below is a chart

This black and white screened original was a fairly tough challenge for the 836XL, but it did a reasonable job.



	Other Flatbeds	Scitex 342L	Epson 836XL	PMT Drum	35mm Transp.	Photo Reflective
Dynamic Range	2.2-3.3	3.5	3.3	3.8-4.0	>3.8	>2.6

showing devices and media with their respective Drange (density range) numbers.

In an industry that measures everything in time, scanning speed is important. Preview capture time for the 836XL's full scanning area is a zesty ten seconds. This buys you some extra time for making your color decisions. Even the final high res capture is brisk, knocking off a 124 MB scan in under five minutes.

The scanner is fairly quiet, as scanners go. Vibration is minimal and all mechanical movements seem very smooth. In short, the design of the moving assembly is quite refined, which leads me to classify the nature of the mechanical design as 'mature'.

The low vibration contributes to the detail accuracy of the capture, making the results clean and crisp. Color registration is tight, as would be expected from a single-pass scanner, but it was even better than I had expected, which I must attribute to solid hardware engineering.

One of the coolest features of the 836XL is its built-in autofocus, which allows you to throw all manner of objects on the scanning bed. As a test, I

The Epson Expression 836XL delivered a cleaner sharper scan (right) than one done on a comparable flatbed (left), which looks soft and dark at the edges.



Some of these were metallic, which normally make for difficult scans.

I was extremely pleased with the outcome and spent more time than I should have on this part of the analysis — mostly running around trying to find weird things to scan. The autofocus also worked particularly well with fabric scanning.

Due to the flexibility of the flatbed size, autofocus, batch scanning capability, the inclusion of *SilverFast* scanning software from LaserSoft, and good-to-excellent descreening (the product pic is a rescreen of the cover of the User Guide), this scanner is easy to use and productive. In fact, you could throw a whack of items on the glass plate, set up the specs for each of the originals, set the software to scan to file (rather than open in *Photoshop*) and walk away.

(Note: Don't walk too far. This thing is quick.)

A FEW BUGS

The Epson *Twain Pro* software works pretty well, and offers you most of the color control you would want, but the zoom preview button seems to cause a weird color shift on

screen. It doesn't affect the scan quality, but it's a bit unnerving nonetheless.

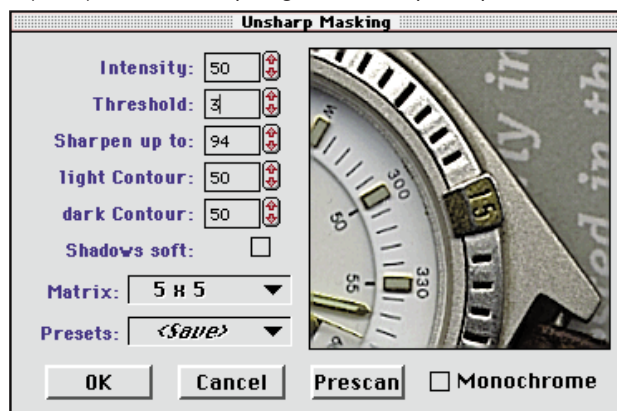
The *SilverFast* software, which I chose as a driver over the Epson *Twain Pro* driver for most of the tests,

CONTINUED

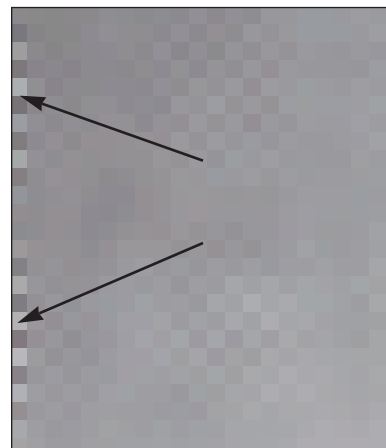
(below) *SilverFast* software's main screen



(below) *SilverFast*'s sharpening controls are quite impressive.



Descreening algorithms are good, except for the artifacts that appear on the edges of scans. Don't forget to crop!



Details from a bottle of Ouzo (yes, that's my shirt in the background).



worked extremely well, right down down to the interactive sharpness controls that show the user how the different sharpness settings will affect the image.

However, a niggling little bug in the scan size controller won't allow you to set final size by percentage if you are scanning over 100% of the original size. You can get around this easily by punching in the final size in inches, but this bug should be fixed. (I think it's only in the Mac software.) Also, the menus are a bit large if you're working on a small screen to do your scanning. You will need at least a 17" monitor (and preferably 20") and at least 24 MB of RAM to work efficiently.

When selecting descreening (to scan a previously printed original or a laminated proof) you should crop in slightly from the edges after scanning to get rid of edge effects caused by the descreening algorithm (see picture). Also, be careful with dirt on the glass plate or on your originals; this scanner does a very good job of picking it up. If you are scanning a framed picture with dirty glass in front of the photo, you would be best to clean it well so that the autofocus doesn't concentrate on the dirt instead of the subject matter (see picture).

Epson has done a good job of assembling the right hardware, software and support materials. The product information and instructions are clear and easy to read. There are PDF files with a full user manual for each piece of the package, which includes *Photoshop 4.0LE*, *MonacoSCAN* calibrator software, LaserSoft *SilverFast ai*, Epson *Twain Pro* driver software, and Adobe *Acrobat Reader 3.0*.

Don't expect the price of this scanner to drop as quickly as other technology. Epson has hit the market with the right product, at the right time, at the right price.

It's about time *somebody* did.

The Epson Expression 836XL lists for \$3,995. For additional information, go to www.epson.com/graphicarts/scanners/expression836 or call Epson Canada at (416) 498-9955. *

More 3D scans: (top right) this scan of a watch on a magazine demonstrates that the Expression's focus has decent depth of field; (centre) coarse fabric; (right) here's a 3D cigar box lid taken right off the scanner.

(top right) Scanning an original under glass can be tricky if you don't clean the glass properly, since the Expression 836XL picks up any dirt that gets in the way.

