

# Spot Color

There sure has been a lot of major improvements in color printing lately. From that *Hewlett Packard* 650-C and similar low end inkjets. To mid-range dye subs and lasers from *Tektronix* or *Apple*. Plus improving *Canon* and premium color copiers. Up through the latest of high end *six* color microdot presses.

One major trade journal that tries to keep track of all this is *Color Publishing*. Other useful info sources include *U&lc*, *Electronic Publishing*, and *Publish*.

So far, none of these new color options even remotely competes against a black and white PostScript laser printer. Such as a 5M+ or the superb new 5SiMX from HP. At least not when it comes to speed, to per-page delivery costs, to operator convenience, and raw output quality. Especially when you must have all of these advantages at once.

So, it is certainly still appropriate to ask what cheap and simple tricks you can pull to make a black and white laser "more colorful". Traditionally, the term *spot color* meant a preliminary duplexing pass through your press to put down background blocks and stripes of tints and solids. But I'll use the term here to describe any cheap and simple method of brightening up black and white printed output...

## Color Papers

Way on back in college, I consistently got the highest grades on my lab reports. Because my reports were always thicker than the others. And the key insider secret to thick lab reports, was, of course, to use thick paper.

Similarly, the paper you use can make a big difference in how colorful a presentation or document appears. A beige or a light gray background can dramatically improve your viewability and acceptance.

My favorite walk-in source is *Paper Plus*. A national chain of several hundred stores that offer wide variety at reasonable prices. You can contact them directly to find your nearest locations.

But the real biggies these days are those direct mail laser paper sources. Outfits like *Queblo*, *Impact*, *Paper Access*, *Paper Direct*, *Baudville*, *On Paper*, *Paper Adventures*, and *Quill* are pretty much typical.

One tip: Be sure your chosen paper is "laser rated" or "laser friendly". Certain papers (especially higher texture ones) can give erratic results. Higher weight papers may jam. Certain glossy papers blister badly.

And toner falls right off "tyvec" based papers. Not to mention melting into a black lagoon style gloppy mess in what used to be your printer.

## Preprinted Forms

Most of the sources I've just mentioned also now offer a wide variety of preprints. Papers, tri-fold brochures, labels, certificates, and business card stock. All having preprinted graphic color patterns on them. In a mind-boggling new assortment of styles and colors. And competition is finally making the pricing reasonable.

Do be sure your layout is consistent with their design. Done properly, preprints can really turn out great. While creating the illusion of full color production. But careless misuse or a mismatch between form and content can leave you with a totally useless atrocity. Note that others may end up making the same selection for a similar product.

Your key secrets here: Always try actual samples before committing yourself. Then be sure to throw away your first *four* layout designs.

## Die Cuts

The *shape* of your page can make as much difference as the content itself. A number of firms specialize in unusual shapes for tickets, tags, response mailers, business cards, restaurant table tents, door hangers, labels, and such.

Two biggies here are *Die-O-Perf* and *Blanks USA*. Most certificate blanks ultimately come from *Goes Lithography*. Prescored business card blanks are sold by *Cards Now*.

The route to tune yourself into papers, preprints, and diecuts is through the free commercial printing trade journals. I like *Quick Printing* the best. Particularly their *Helene's Hotline* product locator service. *Instant Printer* and *In-Plant Printer* are nearly as useful.

*Printer's Hot Line* is a national shopper, while *Horse Trader* and *California Printer* are examples of West Coast regionals. *Printer's Shareware* is a great software source, while *Printer's Shopper* is a pricey but full line source for just about anything an old line print shop might need.

Additional printshop and desktop publishing resources appear in HACK27.PDF, RESBN45.PDF and dozens of my related files on [www.tinaja.com](http://www.tinaja.com)

## Color Toners

Colored toners for B/W laser printers never really made it that big. Although blues and browns have been offered, these did not work out all that good. There was the usual chicken-and-egg problem of cost being too high because of low sales. Plus cartridge changing hassles. And exceptional cleanliness was needed.

Still, it might be interesting to take today's color toners and perhaps mix them to come up with your own custom colors in a refilled cartridge. Making sure, of course, that the chemistries were compatible.

Toner refilling supplies in general appear in *Recharger* magazine. While *Don Thompson* is a superb source of laser printer repair training and replacement parts.

Needless to say, you can dramatically reduce all your per-page printing costs by refilling your own cartridges and doing your own printer service and maint.

## Kroy Color

It started out as *Omnichrome*, then became *Kroy Color*, then any of a dozen current brands. But never quite made prime time. Mostly because of poor end user acceptance, high waste, and bad reseller margins. Still, it remains a useful spot color opportunity.

Toner is basically a mixture of black stuff and hot glue. Place the glue part in contact with a suitable hot stamp foil, heat it under pressure, and you can fake hot stamping. In gold or silver, bright metallics, or even pastels.

There are four possible routes for you here. In order of increasing likelihood of useful results: (A) You can cut out a small piece of foil and iron it in place. (B) Tape the foil to your laser printed sheet using *Post-it Correction Tape* and send it back through your straight-path printer; (C) Use a foil carrier and a special fusion machine; or (D) use a larger high volume roll-fed fusion machine.

Fusion machines have kinda been catch-as-catch-can, owing to their outrageous retail pricing. All you really need are feed rollers, pressure and an adjustable temperature around 360 degrees Fahrenheit or so.

At one time there were easily modifiable *Canon Fusion Machines* that distressed out for as little as \$50. Sadly, these are long gone. But it should be possible to adapt an older laser printer or rework a SX fuser.

At any rate, you'll find lots of retail foil offerings in the usual direct mail paper sources I just mentioned. *Inside Finishing* is a brand new trade journal for the big boys in the hot stamp foil industry.

One high end roll fed machine is offered by *FoilMax*. Even more intriguing (but outrageously expensive) is the new *CopiPress* system which lets you transfer toner onto wood or metal or plastic or just about anything flat that can be run through their extremely high pressure machine.

## Black on Black?

Yeah, this can work out amazingly well. But only for a strictly limited range of point-of-purchase displays. Or similar snotty announcements or high end presentations. Start with a thicker and glossy black stock. Then print matte black laser toner on it.

Very distinguished. And quite compelling. Be sure to think "elegant", "sophisticated", or "Art Nouveau" here.

Howling Holsteins need not apply.

You also might want to add a *tiny* amount of *thin* Kroy Color gold or silver rules. And, of course, to pull this one off, bright and diffuse lighting is critical.

Black or other darker stocks also can perform well with white and certain other light foil colors. But any foil light color transfer defects will be glaringly obvious. Expect lots of scrap when you try this.

## Dual Printers

Inkjets are certainly capable of printing *certain* colors and tints extremely well. So the first thing you'll want to do is find out *which* colors and tints really can work for you and which do not. Then create a favorite library.

While avoiding the uglies.

Next, let your inkjet run overnight, printing up page after page of sheets with appropriately placed spot color.

Then overprint the stock pages using a high quality B/W PostScript laser. This can give you the best of both worlds. Bright and cheerfully complimentary backgrounds.

Combined with razor sharp text, photos, and line art.

You can avoid most registration problems by simply not registering anything. Design your layout such that a feed misalignment of a tenth of an inch won't matter.

Let the colors themselves define your visual boundaries. If you must use borders, use very thick ones.

## Laser Buddy and Bakerizing

While certainly not colorful, there is one product that all B/W laser printers simply must have.

*Laser Buddy* is a spray. Sort of Bakerizing in a can. The spray makes toner images darker, fuller, and a high gloss. It is very useful to upgrade camera ready copy. But use it sparingly. And watch out for fattening and darkening of light grays. About \$8 per can.

Real Bakerizing? This is another great idea that sorta fell by the wayside. First discovered by Woody Baker, an early PostScript pioneer.

Take a thin sheet of slip coated mylar. Such as an empty (fully used) Kroy Color carrier. Place this in contact with your toner output and apply heat and pressure. This carries out a calendering process that melts the toner and "copies" the slick surface onto it. Similar to the ferrotype drums once used in finishing glossy photos.

The result is an amazingly durable and very high gloss shiny black. While ideal for business cards, the result is a bit much on large areas of dense text. And is not at all suitable for grays or halftones.

You can see the general effect of Bakerizing by opening the lid on your laser printer when a page is a third of the way through the fuser. Wait a minute and extract the page. The graphics under the fusion roller will be Bakerized.

## The Highlighter Ploy

Color label stocks do tend to be limited to white, bright yellow, and four fluorescent shades. Anything different can be outrageously expensive. Or, at the least, gets done using color inks over one of these basic stocks.

Let's look at an ultra low end spot color alternative that can work surprisingly well. Have you ever noticed that a page highlighter's color is virtually invisible when applied over solid black toner?

So, just use a plain old white label or whatever. Print large black areas with *reversed* white lettering. Then color the text by schmirping it with a highlighter. You'll get the best results with a fresh highlighter and two smooth and light passes. Practice makes perfect.

Some brands and colors will work better than others, so experiment to get the best results. Naturally, you can use several colors at once if you want to.

## SPOT COLOR RESOURCES

**Baudville**  
5380 52nd Street SE  
Grand Rapids MI 49512  
(800) 728-0888

**Blanks USA**  
2722 Fernbrook Ln N  
Minneapolis MN 55447  
(800) 328-7311

**California Printers**  
PO Box 11766  
Santa Ana CA 92711  
(714) 836-9653

**Cards Now**  
6401 Odana Rd  
Madison WI 53719  
(800) 233-9767

**Color Publishing**  
1 Technology Pk Dr  
Westford MA 01885  
(508) 392-2166

**CopiPress**  
18261 McDermott W  
Irvine CA 92714  
(800) RGB-CMYK

**Die-O-Perf Inc**  
1721 E Pioneer Dr  
Irving TX 75061  
(800) 843-2807

**Electronic Publishing**  
401 N Broad St  
Philadelphia PA 19108  
(215) 338-5300

**FoilMax**  
6805 Alameda Ave #A  
El Paso TX 79905  
(915) 771-7758

**Goes Lithographing**  
42 W 61st St  
Chicago IL 60621  
(312) 684-6700

**Horsetrader**  
PO Box 11712  
Santa Ana CA 92711  
(712) 921-3120

**In-Plant Printer**  
Box 368  
Northbrook IL 60065  
(708) 564-5940

**Inside Finishing**  
Box 12090  
Portland OR 97212  
(503) 331-6221

**Instant Printer**  
Box 368  
Northbrook IL 60065  
(708) 564-5940

**Laser Buddy**  
117A Commercial Drive  
Thomasville GA 31792  
(800) 873-9758

**On Paper**  
PO Box 1365  
Elk Grove Village IL 60009  
(800) 820-2299

**Paper Access**  
23 West 18 St  
New York NY 10011  
(800) PAPER-01

**Paper Adventures**  
PO Box 04393  
Milwaukee WI 53204  
(800) 727-0699

**Paper Direct**  
57 Romanelli Ave  
S Hackensack NJ 07606  
(800) A-PAPERS

**Paper Plus**  
300 Oceangate #800  
Long Beach CA 90802  
(213) 436-8291

**Printer's Hot Line**  
PO Box 1709  
Fort Dodge IA 50501  
(800) 950-7746

**Printer's Shareware**  
5019 W Lovers Ln  
Dallas TX 75209  
(214) 350-1902

**Printers Shopper**  
PO Drawer 1056  
Chula Vista CA 92012  
(800) 854-2911

**Publish**  
501 Second St #600  
San Francisco CA 94107  
(415) 243-0600

**Queblo Images**  
131 Heartland Blvd  
Brentwood NY 11717  
(800) 523-9080

**Quick Printing**  
1680 SW Bayshore Blvd  
Port St Lucie FL 34984  
(407) 879-6666

**Recharger**  
4218 W Charleston Blvd  
Las Vegas NV 89102  
(702) 438-5557

**Synergetics**  
Box 809  
Thatcher AZ 85552  
(520) 428-4073

**Don Thompson**  
6 Morgan #112  
Irvine CA 92718  
(714) 855-3838

**U&Ic**  
2 Dag Hammarskjold Plz  
New York NY 10017  
(212) 371-0699

Usually, PostScript goes out of its way to faithfully balance colors against grays. The same rule as broadcast television normally gets used...

$$\text{gray} = 0.30 \text{ red} + 0.59 \text{ green} + 0.19 \text{ blue}$$

You might tamper with this relationship to purposely "unbalance" your grays. For instance, say you add these lines some place near the start of your existing all-gray PostScript code...

```
/setgray { dup 0.731 ge {1 exch dup .41 mul .40 sub .11 div}{0.856 div dup 1.155 mul exch 1.155 div 0} ifelse setrgbcolor} def
```

What this does is cause white to be white and black to be black as usual. But any light gray magically becomes an attractive beige. And a much darker gray turns into a rich chocolate brown. Instead of preserving your gray balance, you purposely take out all of your blue first. Then when you run out of blue, you back off equally on the remaining red and green as needed.

But your final B/W gray ends up the very same as the one you started with!

There's lots of other possibilities that depend upon how you back off which colors in what sequence. But certain light blues may tend to be too thin and some yellows might end up rather excessively loud.

Because the "light" and "dark" rules are different, you create the illusion of *two* spot colors, not just one.

The same idea can be extended to Acrobat files by using a post-processing print to disk. And then redistilling. Tints may be changed on the fly by selecting multiple *setgray* definitions. Or by using a tint dictionary.

A typical sample of colorizing results can be found at RESBN54.PDF on [www.tinaja.com](http://www.tinaja.com) More details on the technique appear in MUSE102.PDF and COLORIZE.PDF

### For More Help

I've shown some of the mentioned sources in our nearby *Spot Color* sidebar. Additional info on these topics appears in my *Book-on-demand Resource Kit* and in that new *Book-on-demand* library shelf found at [www.tinaja.com](http://www.tinaja.com)

### A Contest

Show me your best spot color job using the highlighter ploy. Or otherwise tell me about your favorite spot color secret. As usual, there'll be an *Incredible Secret Money Machine II* going to the dozen finest entries. Along with an all expense paid (FOB Thatcher, AZ) *tinaja quest* for two goint to the very best of all. Snailmail entries only, please.

Let's hear from you ♦

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*Microcomputer pioneer and guru Don Lancaster is the author of 33 books and countless articles. Don maintains a US technical helpline you'll find at (520) 428-4073, besides offering all his own books, reprints and various services.*

*Don has a free new catalog crammed full of his latest insider secrets waiting for you. Your best calling times are 8-5 weekdays, Mountain Standard Time.*

*Don is also the webmaster of [www.tinaja.com](http://www.tinaja.com) where a special area has been set aside for *Midnight Engineering* readers. You can also reach Don at Synergetics, Box 809, Thatcher, AZ 85552. Or email [don@tinaja.com](mailto:don@tinaja.com)*

### PostScript Colorizing

I've saved the best option for last. There's a sneaky PostScript stunt you can pull that's similar to colorizing old B/W movies. This can be most handy. For, say, displaying spot color over the web or on a monitor. While actually still printing in black, white, and the original grays. Or in spot color. Easily updating your existing files.

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