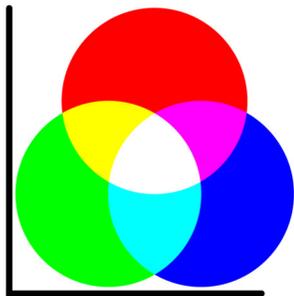


Working with Color

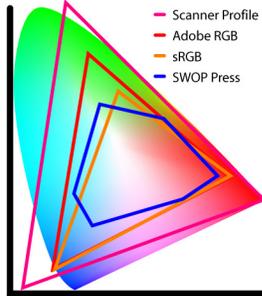
RGB red-green-blue

- On screen
- Additive: all three combined produce white (100% red + 100% green + 100% blue = white)
- Not all screen colors can be reproduced on paper; the RGB gamut is larger than the CMYK gamut†
- Professional design software identifies out-of-gamut colors

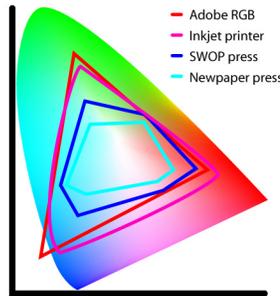
†Nearly rhymes with *damn it!*



Additive and Subtractive Color



RGB*



CMYK*

CMYK cyan-magenta-yellow-black

- On paper
- Subtractive: removing R or G or B from white leaves a *reflective* color (cyan = white - red; magenta = white - green; yellow = white - blue)
- Reflective: the subtracted color is absorbed by ink; what you see is the reflected color
- Desktop inkjet printer inks usually produce much brighter colors than inks used on offset presses

Left: The tilted cones represent visible color. The outlines show the colors that a particular device, such as a scanner, monitor, or printing press, can define or reproduce.

Below: In process color, each ink is printed from a separate plate. The actual color separations appear black.

*Graphic from "Color Workflows for Adobe Creative Suite 2" available at www.adobe.com/products/creativesuite/pdfs/cs2_color_workflows.pdf (PDF: 4.5M); all other graphics by Williams Writing, Editing & Design; SWOP: Specifications for Web Offset Publications

~Rule of Thumb~

- ✓ Work in RGB
- ✓ Convert to CMYK before printing
- ✓ Use RGB for your Web site graphics



RGB



CMYK



Cyan



Magenta

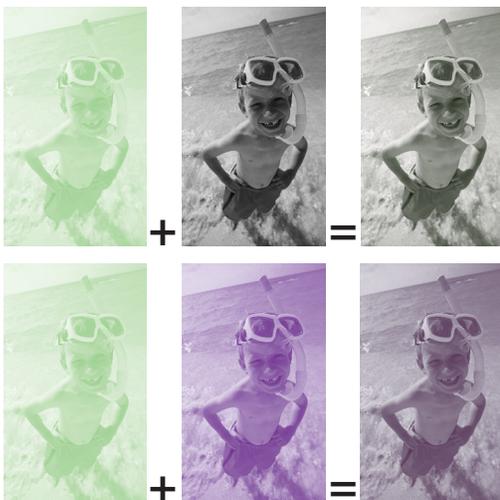


Yellow



Black

Duotones



Ink Colors

Print jobs can be run in one to six or more colors. One-color printing can use black or another color ink. Two- and three-color jobs can be any combination of inks you choose. Full color is usually printed in four-color process using cyan, magenta, yellow, and black inks. When printing in five or six colors, the additional inks are spot colors. Not all colors can be created using four-color process, so important graphics like company logos are often printed in spot colors. Florescent colors are spot inks.

Spot colors are usually selected using the Pantone Matching System. Professional design software allows you to select PMS colors that are defined for process or spot-color printing.

—Sandra Williams, www.williamswriting.com