



UNIVERSITY OF GEORGIA

Chartered by the state of Georgia in 1785, the University of Georgia is the birthplace of public higher education in America — launching our nation’s great tradition of world-class education for all. What began as a commitment to inspire the next generation grows stronger today through global research, hands-on experiential learning and extensive outreach. One of America’s “Public Ivies” and a top 10 best value in public higher education, the University of Georgia tackles some of the world’s grand challenges — from combating infectious disease and securing the world’s food supply to advancing economic growth and analyzing the environment.

Located in Classic City of Athens, approximately an hour northeast of Atlanta, Georgia’s flagship university thrives in a community that promotes the benefits of a culture-rich college town with a strong economic center.

Consistent Color Management

What you see is what
you should get!

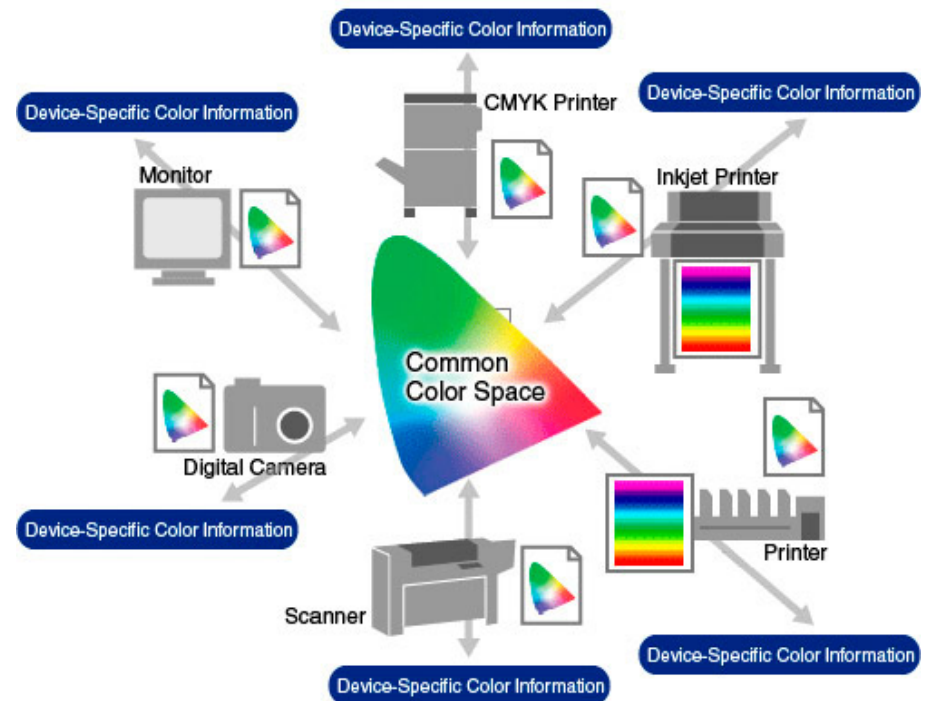
*Peter Lee & Rick O'Quinn, UGA
Marketing & Communications*



What is Color Management?

Controlled conversion of color
between various devices

Displays
Scanners
Printers
Printing press (proofing device)
Cameras



Why Are You Here?

I am eager to master color management!



Why Are You Here?

I can't master color management!



Why Are You Here?

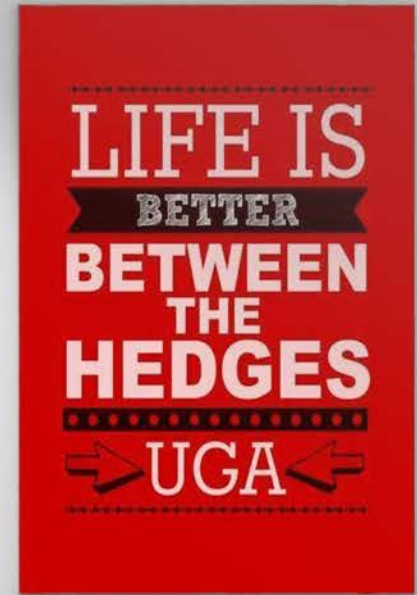
I quit trying to master color management!



Our Goal

Help you master color management...
by learning how to capture the best color
from the source, then obtain good color
matching between various devices







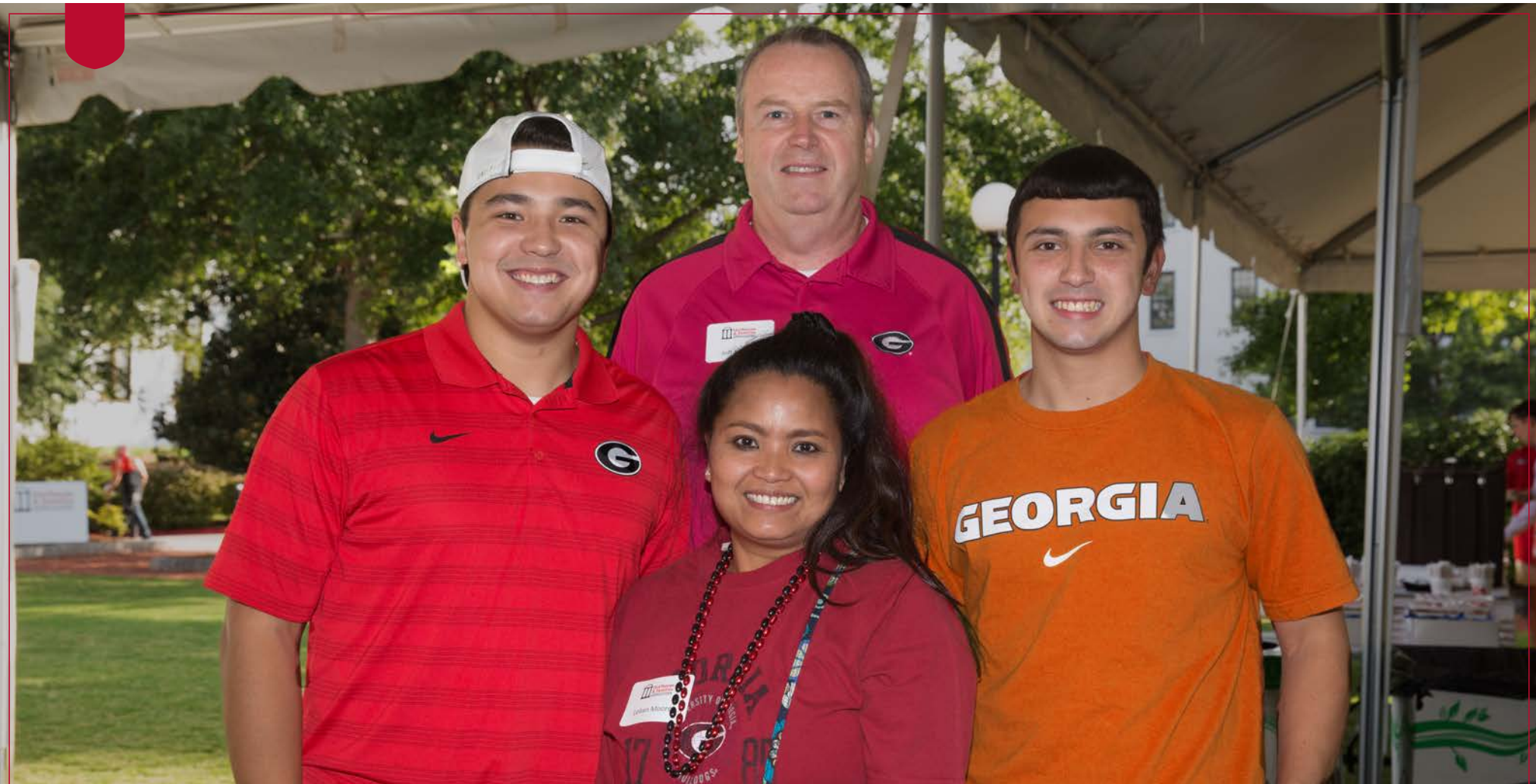
UNIVERSITY OF GEORGIA

#elevateuga17 9



UNIVERSITY OF GEORGIA

#elevateuga17 10





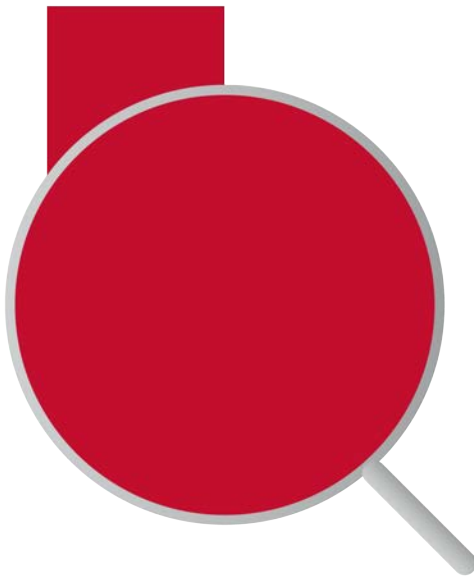
SPOT

CMYK

RGB



SPOT



CMYK



RGB





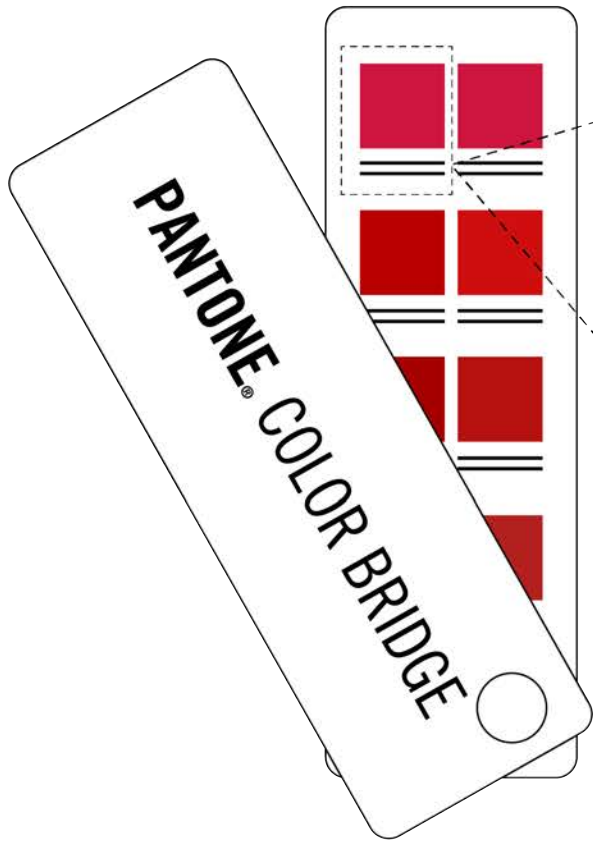
The **goal** is always
the spot color.





PANTONE® COLOR BRIDGE





PANTONE 200 C

CMYK: 3 / 100 / 70 / 12

RGB: 186 / 12 / 47





CMYK:
3 / 100 / 70 / 12

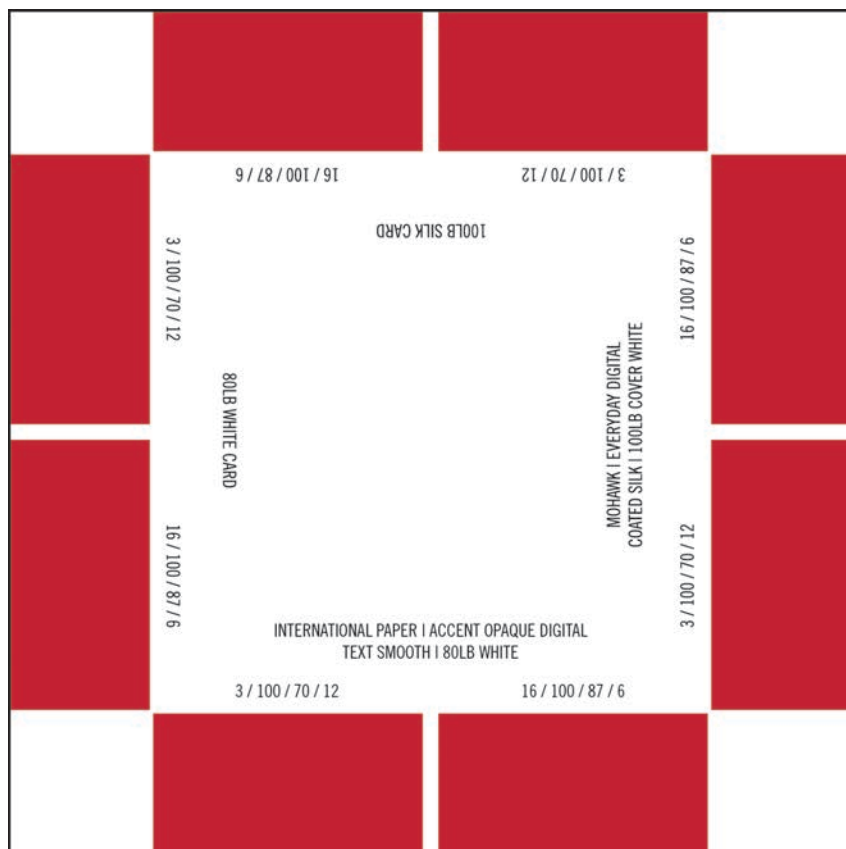


PANTONE 200 C



CMYK:
16 / 100 / 87 / 6







Team Pantone?





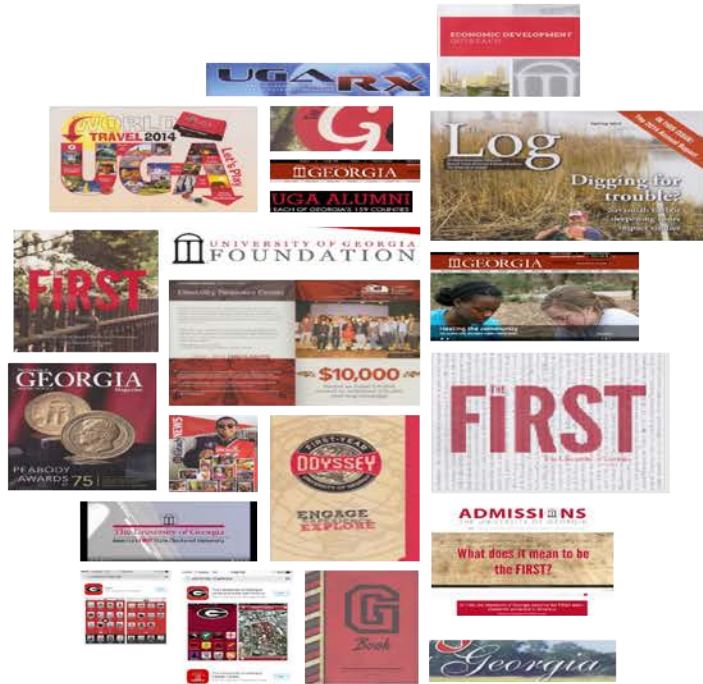
Team Adobe?





Team Pant-obe?





since September 2016



Learning the Lingo

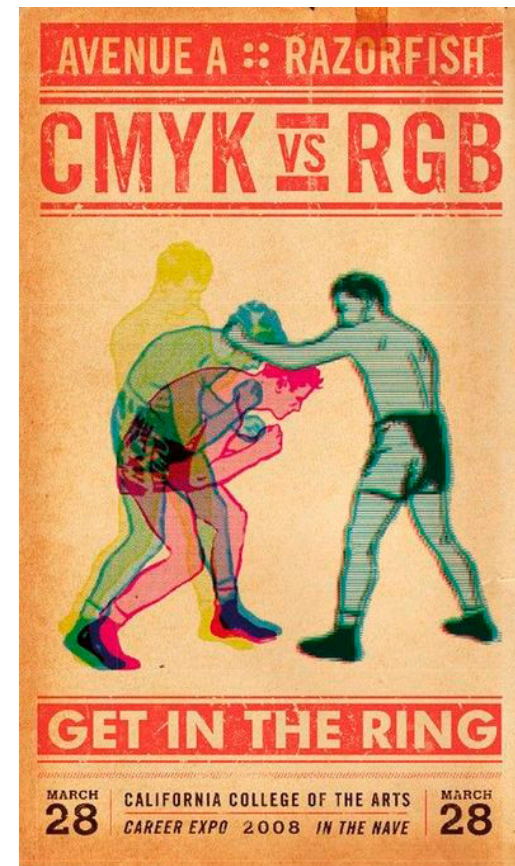
Words to live by



Color Models

Abstract mathematical models describing blah, blah, blah....

- RGB
- CMYK
- Grayscale
- Lab
- Index

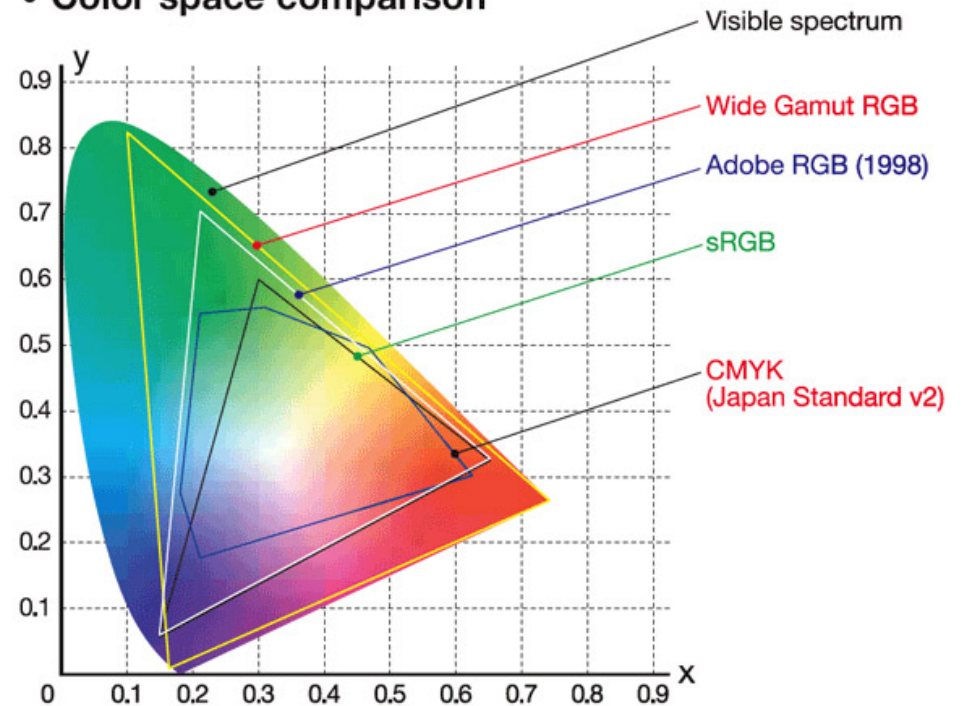


Color Spaces

Also referred to as working space; a specific organization of colors within the broad color models

- AdobeRGB
- sRGB
- US Web Coated (SWOP)

• Color space comparison



Calibration

Placing devices into a predetermined state

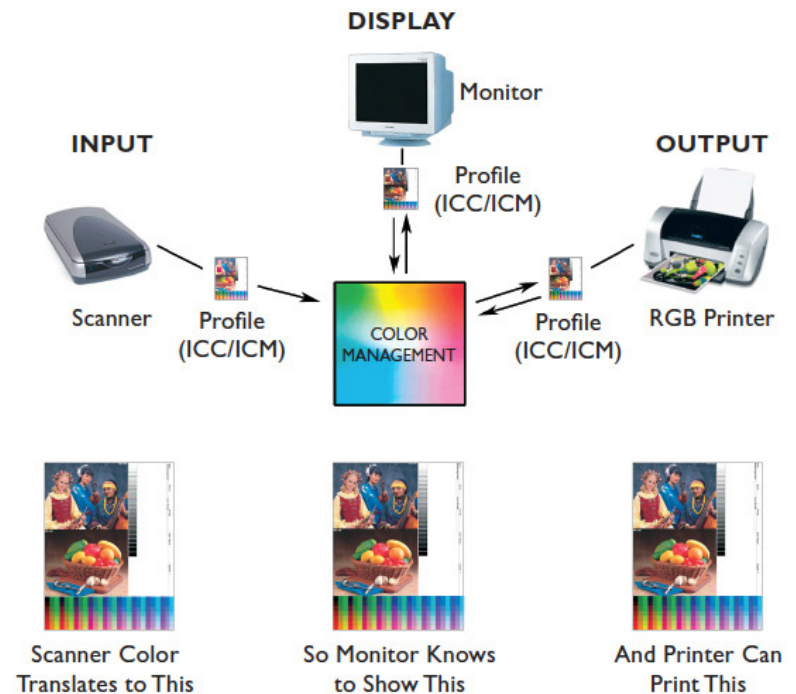
- Hardware
- Software
- Human eyeballs (not to be trusted)



ICC Profiles

A description of how a device reproduces color

- It's a translator
- Allows color to be mapped from source to destination
- Applies to all devices



Making It Work

Displays, color space and conversions

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www.glasbergen.com



“I’m tired of paying \$35 for ink! So I refilled the cartridges with ketchup, mustard, blue soda, and black coffee.”



Display Calibration

Without a calibrated monitor, you are just guessing

Colorimeters & spectrophotometers work with software to measure color on a screen and create a profile

Puck-like devices such as:

- Spyder Pro
- Color Munki

Manual software:

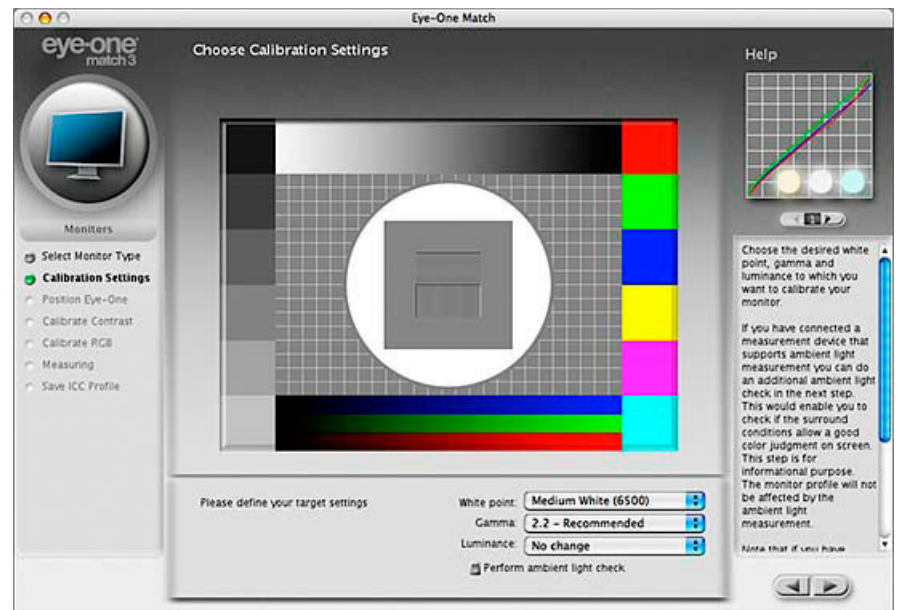
- Apple Display Calibrator Assistant



Calibration Tools

User sets parameters, such as white point, contrast and brightness

Remember, displays change over time, therefore calibration is an never ending task



Don't Diss the Display

You get what you pay for

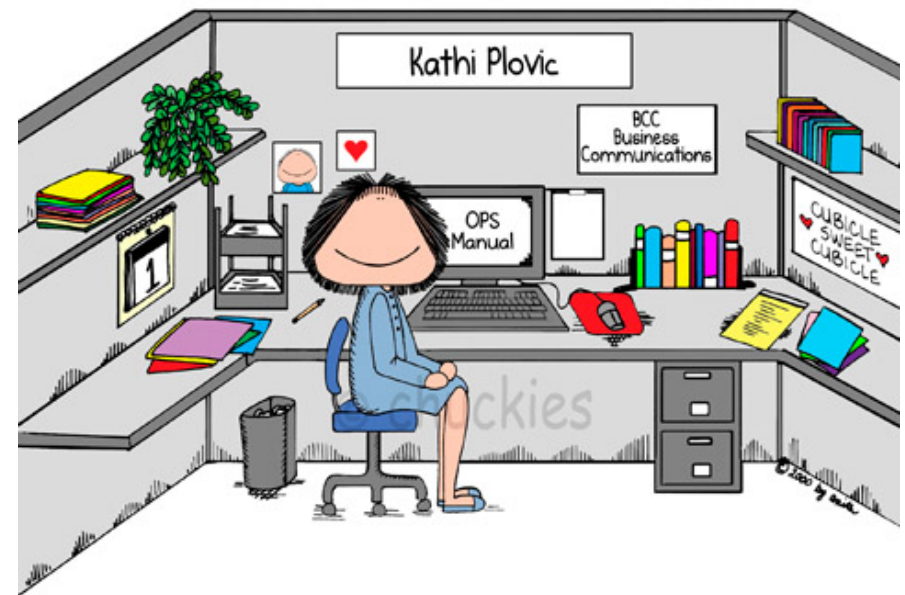
Built-in or dedicated calibration tools

At a minimum, get a display that allows for adjustment of both brightness and contrast



Where Do YOU Choose to Work?

Set a default color space in your imaging software



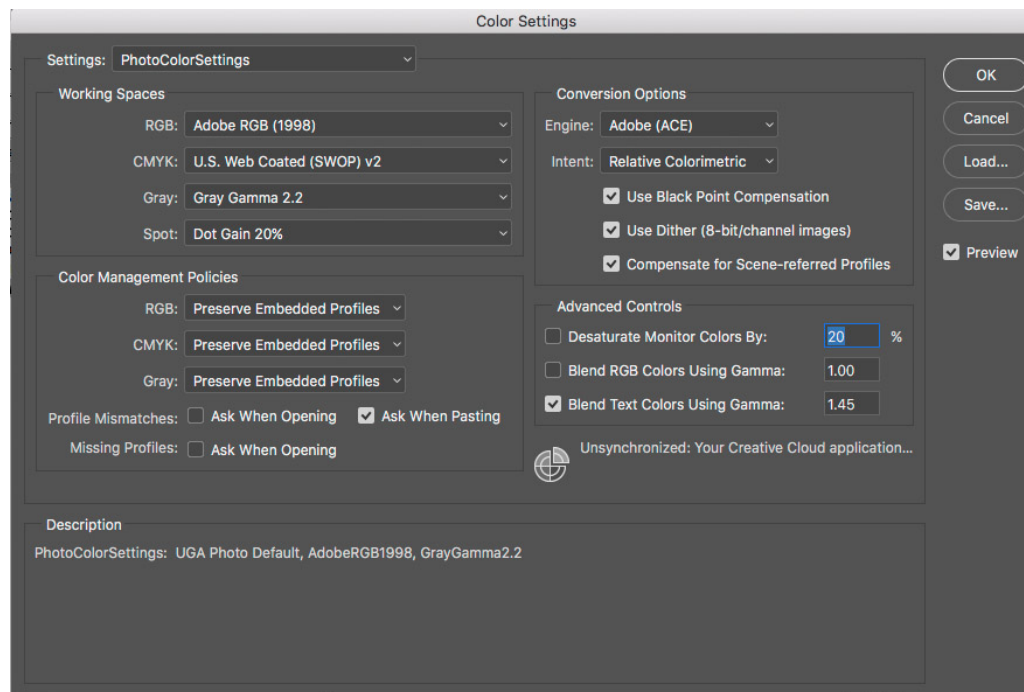
Photoshop Color Settings

To set default color settings:
Edit/Color Settings

Set default Working Spaces

- RGB
- CMYK
- Gray
- Spot

Control how embedded profiles are
treated



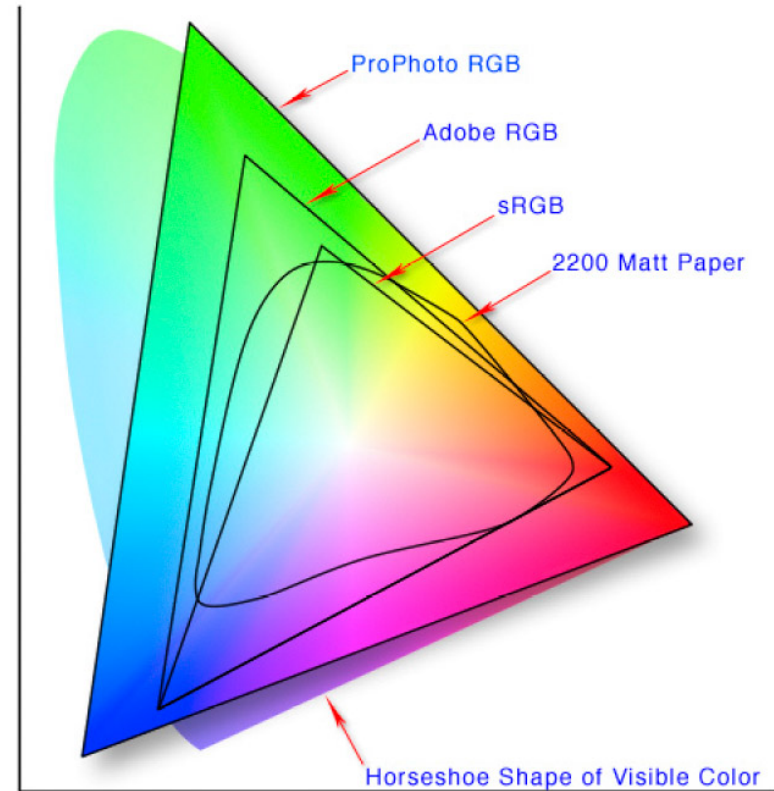
Capture Big Color

Start with a wide color space

In camera, use AdobeRGB or RAW

In Software, AdobeRGB or ProPhoto RGB

Avoid capturing or archiving images in sRGB



Basic Color

sRGB



Big Color

AdobeRGB



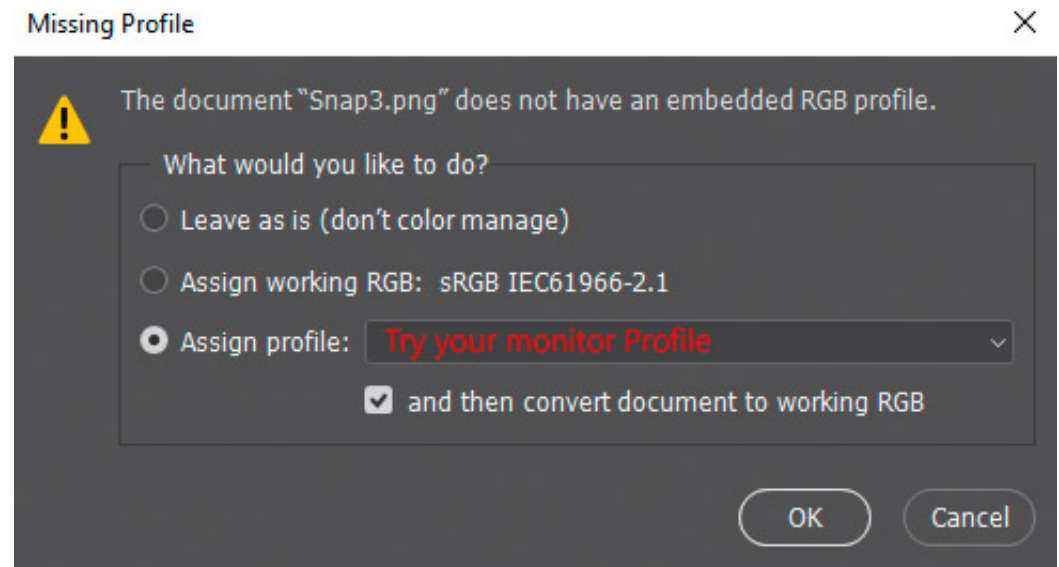
Bodacious Color

ProPhoto RGB



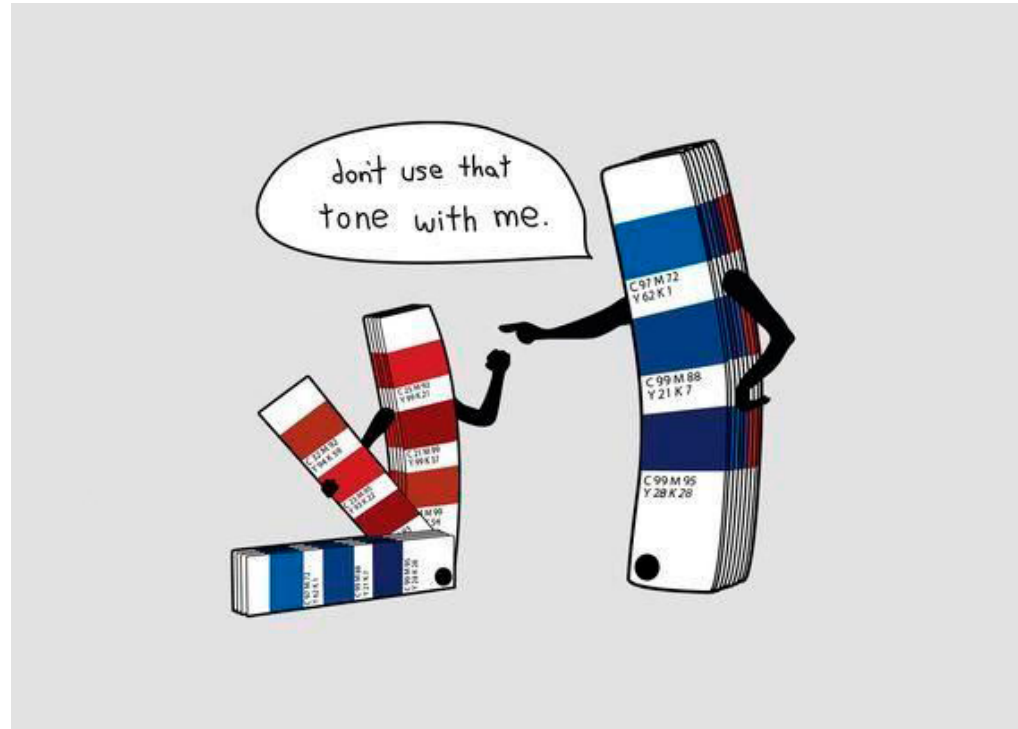
If You Only Remember One Thing

Never use your monitor profile for your working space!



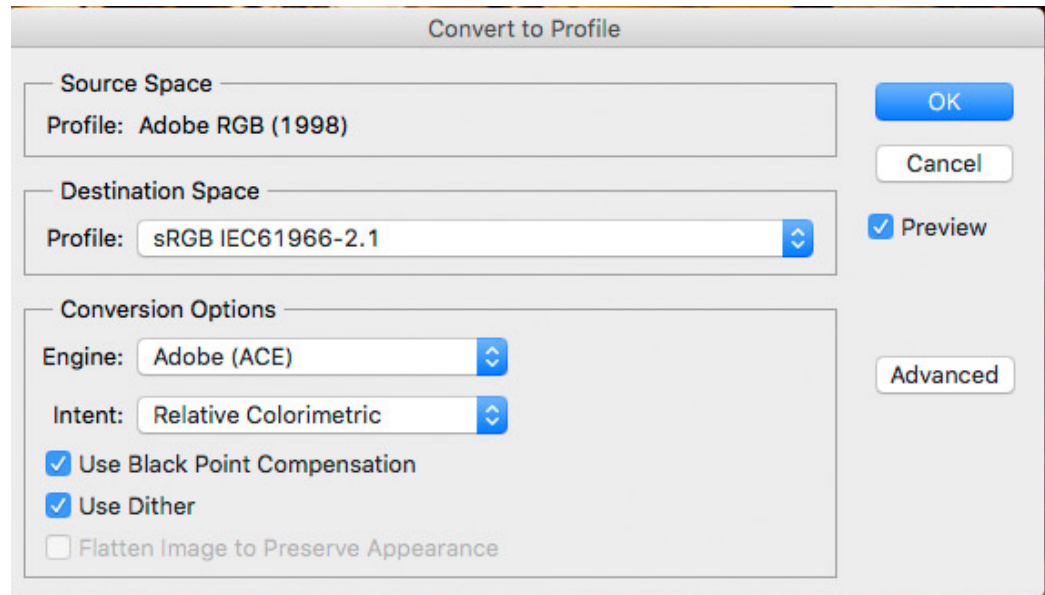
Maintain Order

Know how to handle color for output



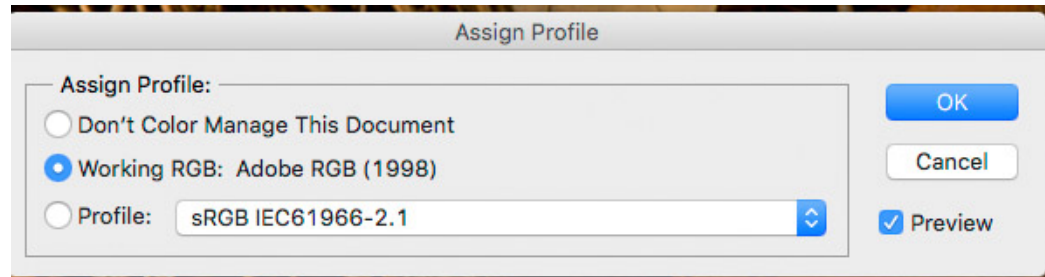
Be a Converter

Use the Convert to Profile function to control “translation” of color



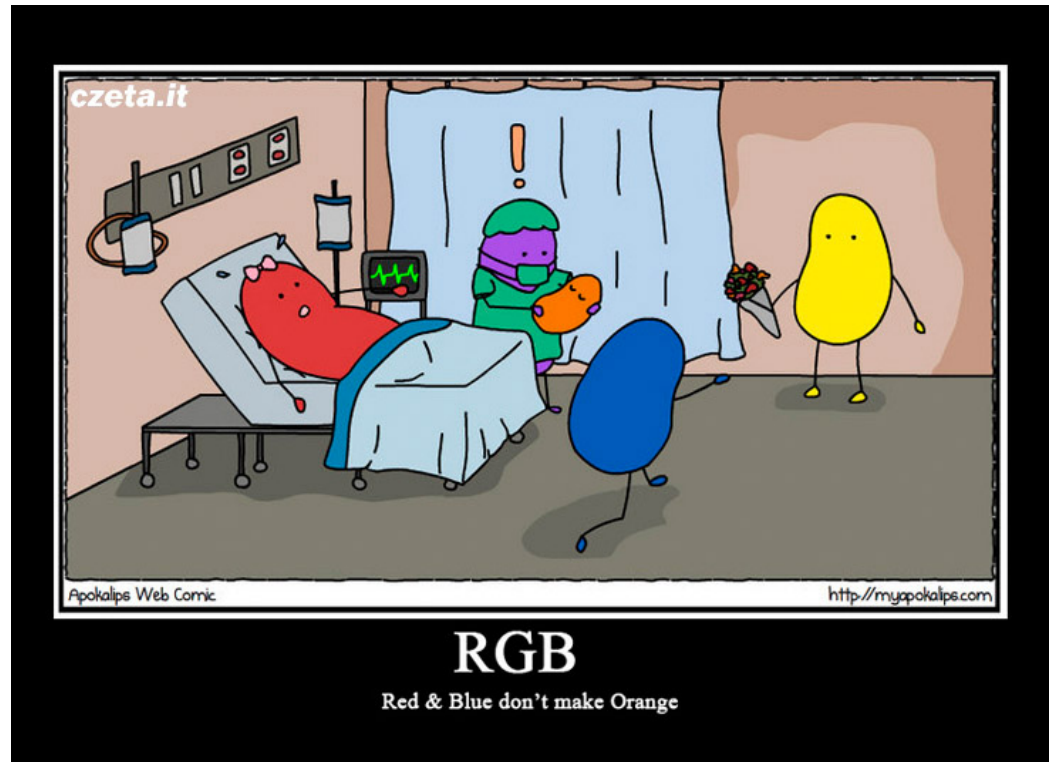
Not an Assigner

Only as a last resort for images with unknown color space



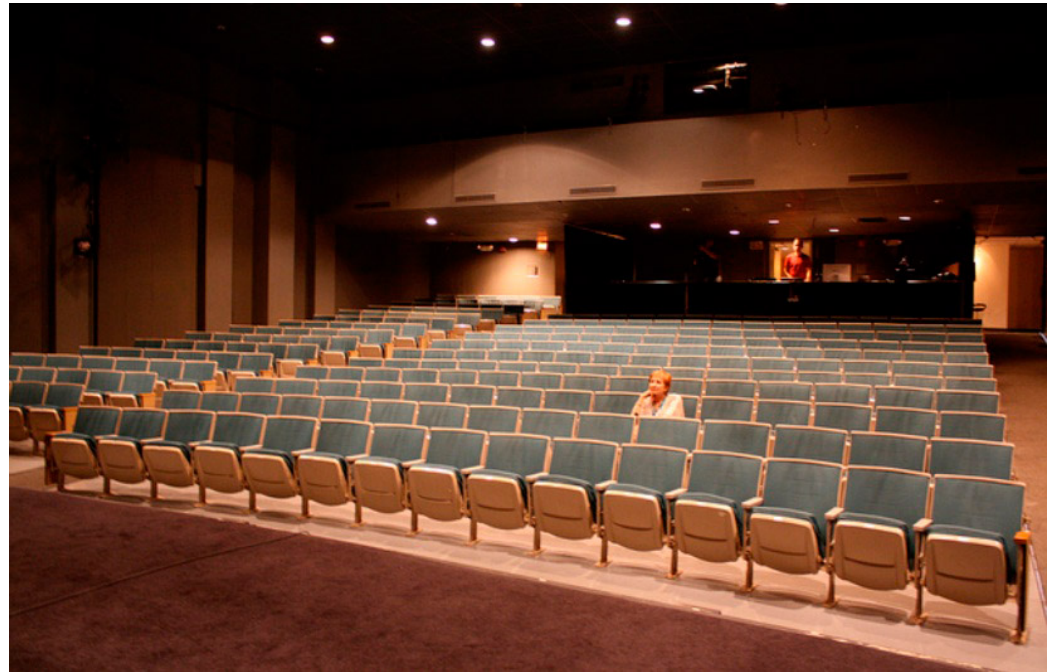
Where Do Profiles Come From?

- Manufacturer's generic profiles
- Vendor provided profiles for output devices
- Create custom profiles



Is Anyone Still Out There?

Questions?





Resources

General color management: <http://www.digitaldog.net>

Visual calibration (Mac): <https://www.lifewire.com/use-mac-display-calibrator-assistant-for-accurate-color-2260919>

Photoshop color settings: <https://digital-photography-school.com/6-color-settings-photoshop-need-know/>

Camera calibration: <https://digital-photography-school.com/how-to-use-the-x-rite-colorchecker-passport-to-obtain-perfect-color/>

Monitor calibration: <https://digital-photography-school.com/why-is-monitor-calibration-important-and-how-to-do-it/>

Lynda.com: <https://www.lynda.com/SharedPlaylist/aea6000dd7f14f9cb946fd6e4b602cf3>





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