Color-Managed Workflow

The Problems:

1. Monitor displays color incorrectly
    a. Improperly adjusted at factory
    b. Aging
    c. Solved by Profiling the monitor
2. Printer does not properly reproduce colors
    a. Variability among printers
    b. Use of third party papers
    c. Use of third party inks
    d. Aging of print-head
    e. Solved by creating custom profiles for each paper/printer combination
3. Camera and/or scanner improperly captures colors
    a. Improper use of film media (outdoor vs. indoor)
    b. Poorly functioning color-temperature meter
    c. All require software adjustment of color
        i. Raw adjustments
        ii. RGB adjustment

The Solutions:

1. Monitor:
    a. Best: colorimetric measurement to create profile using Gretag-Macbeth, Monaco or similar devices to produce custom profile
    b. Poor solution: use Adobe's Adobe Gamma utility
2. Printer:
    a. Best solution: create custom profiles using a colorimeter or spectrophotometer to precisely map colors in the printer
    b. Poor solution: trial and error with manual adjustments
3. Camera and/or scanner
    a. If shooting raw: adjust color temperature and tint slider to recreate proper color
    b. If correcting RGB files use color balance, levels, curves, etc.
    c. In either case, use "known colors" as a guide. Example: Gretag-Macbeth Color Checker

The Demonstrations:

1. Gretag Macbeth Eye-One system for monitor calibration:

a. Works with Mac and PC
b. Requires use of a USB connection (don't use a hub)
c. Download appropriate software from Gretag-Macbeth website: http://www.gretagmacbeth.com/index/support/support-center-list.htm note that this site also contains a wealth of information and tutorials
d. Works with LCD and CRT
e. Available for 3 day loan

2. Gretag-Macbeth Photo
   a. Download targets from the BECS website
   b. Load target with no colorspace (should show up as "untagged RGB")
   c. Print target without color management. There should be no color management in either the printer or the software.
   d. Let target dry for about 24 hours before sending targets to Paul
3. Using software to correct color images
   a. Raw using color checker
   b. Raw using color temperature/tint slider
   c. RGB using color balance, levels, curves etc
4. Using custom profiles to print
   a. Using soft-proofing
   b. Using gamut warning
   c. Deciding on the rendering intent
   d. Making the appropriate setting and printing