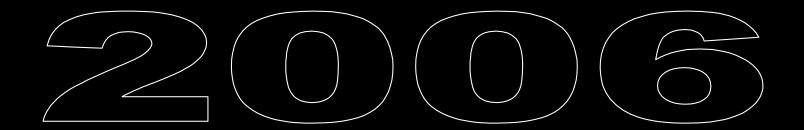# Betterlight

Conference

2006

ColorSpace

Which Color Space is Best?

Gamma, 1.8 or 2.2 ?

ColorSpace

What is Color Management

- Identifying the color characteristics of a device

- Communicating that information to the next device.

ColorSpace

What does that mean?

- Very particular how dark my toast is, so I test my new toaster.

- I toast 6 slices of bread , one at each setting on the dial

- Decide that # 4 is the best for me

What it is

- I go to my neighbors house and repeat the test on his toaster.

- His toaster requires a setting of 6 to achieve my perfect toast.

- That's what color management is…. finding what settings on different devices achieve similar results.

Toasters

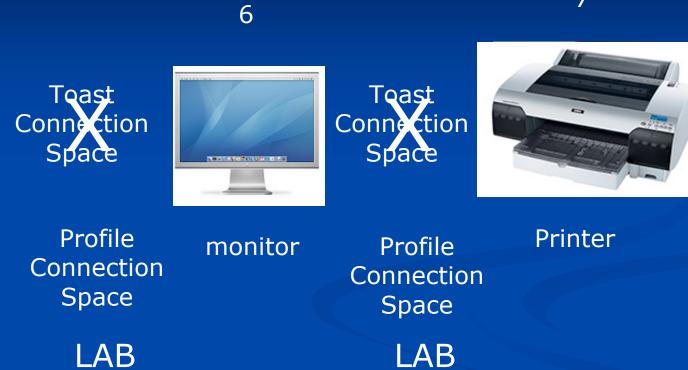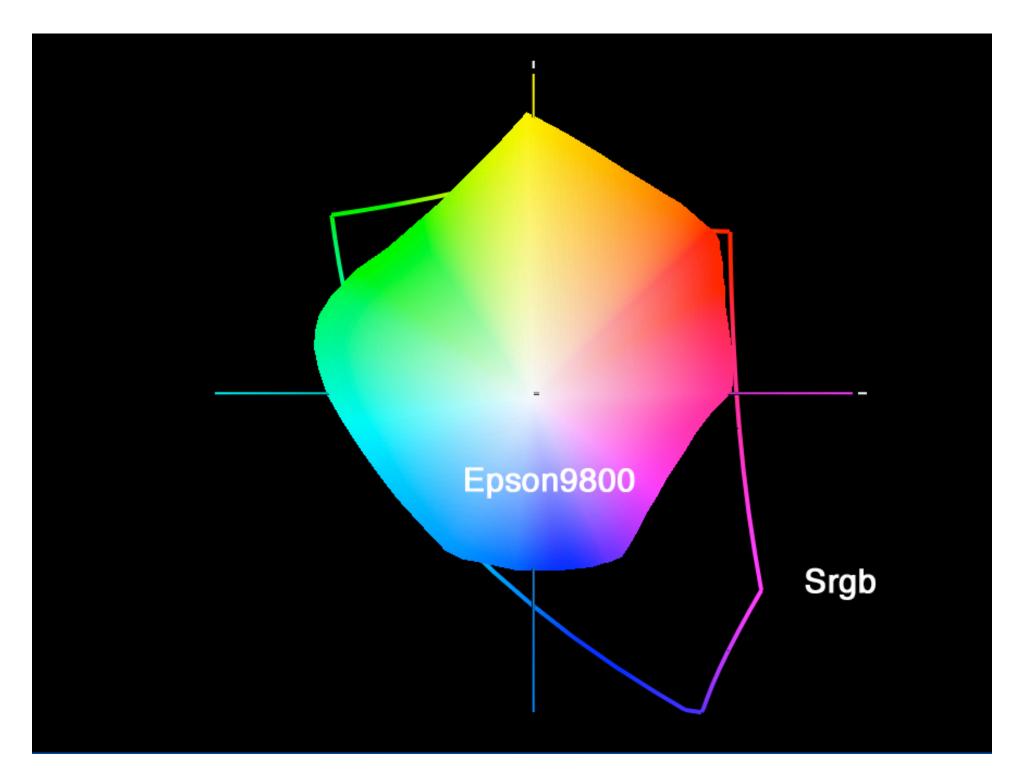4

6

7

Toast connection space

Toast connection space

ColorSpace

Toasters

4

6

7

camera

Toast
Connection
Space
X

Profile
Connection
Space

LAB

monitor

Toast
Connection
Space
X

Profile
Connection
Space

LAB

Printer

ColorSpace
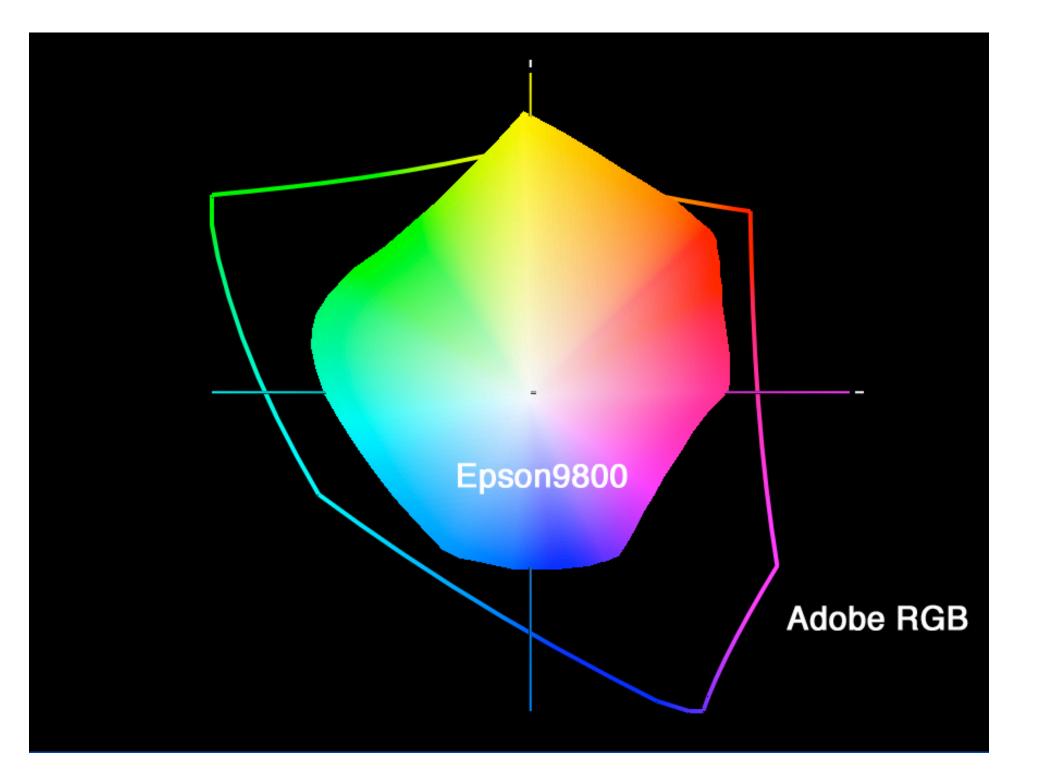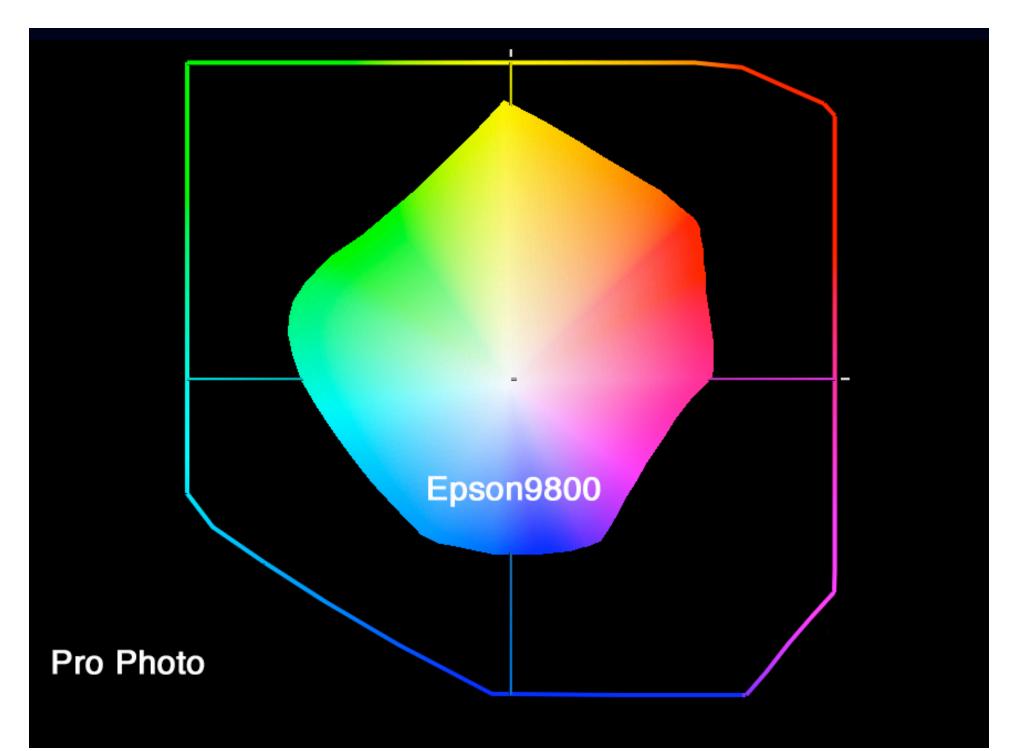
Which RGB Space is Best?

- The answer is …
- That depends…
- On who, where, and how your file is to be used.

ColorSpace

Epson9800

Srgb

Epson9800

Adobe RGB

Epson9800

Pro Photo

Pro Photo or any wide Gamut

- Good to use if you are printing the files yourself.
- DO NOT SEND THESE FILES OUT!!
- DANGER , DANGER
- If not processed correctly your printer can easily hose your file. <u>You</u> will be responsible.

Great for archiving the maximum color of your files (IN YOUR ARCHIVE)

(see sample)

ColorSpace

Adobe RGB

- Good choice for Conversion to CMYK.
- Works well for InkJet output.
- This is the default color space in PhotoShop when color settings are set to North American Pre-Press

ColorSpace

sRGB

- If your output is for Photographic devices where no printer profile is provide this is the best choice.
- This also the best choice for web images.

- It's a 2.2 …… sRgb world

Choosing a Space

- Give the client what they are expecting.
- Wide Gamut spaces for your use only.
- If you don't know what they require, call and ask.
- If they can't answer your question , send sRGB
- It's a 2.2 ……. sRgb world

ColorSpace

Converting

- Large space to smaller space,when needed OK
- Small space to larger not necessary , you gain nothing
- Crayons

ColorSpace

Two types of Gamma

- Monitor Gamma

- Gamma of your file

- They are separate but work together

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Monitor Gamma

- 1.8 - Older Mac Standard

- 2.2- Windows Standard

- Higher values = more midtone contrast (darker appearance)

- I profile monitors at 2.2

- Jump to PM5

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Monitor Gamma

- Monitor gamma does not change your file

- It changes the way your file is displayed

ColorSpace

Gamma Correction

- On a correctly Profiled monitor, PhotoShop can compensate and your file 1.8 or 2.2 will be displayed correctly.

- Jump to Photoshop

ColorSpace

Why use 2.2 Monitor Gamma?

- 2.2 files with 2.2 monitor gamma are less likely to show banding because of the conversion.

- I find it difficult to obtain good black level at 1.8 on many monitors.

- Most monitors have native gamma of 2.2 , if you change it, the video card has to work harder.

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Gamma Correction

- Adobe RGB 2.2 gamma used with 2.2 monitor gamma no correction needed.

- Adobe RGB 2.2 used with 1.8 monitor gamma correction needed and may not work as well

ColorSpace

File Gamma

- 1.8 (Colormatch RGB and Apple RGB)

- 2.2 (sRGB and Adobe RGB 1998)

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PhotoShop Gamma Path

File Gamma → Monitor Gamma → Display

Recap

- Toaster Color Management

- Which RGB?

- Gamma 2.2 or 1.8

- It's a 2.2 …… sRgb world

ColorSpace

Questions?

ColorSpace

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Thank You

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