

Advanced Color Correction in Media Composer

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Session Overview

- **Starts with basics/foundation (fast)**
- **Color theory/avid controls**
- **Room setup**
- **Scopes**
- **Controls**
- **Autocorrect**
- **Shot matching**
- **Secondaries**

Survey

- **Who has MC 6?**
- **Going to buy Symphony?**
- **Knows how the parade scope works?**

Housekeeping

HOUSEKEEPING

- **Ask anything you want!**
- **URL of Notes @ J Greenberg Consulting.com**
- **my email @ end**

Cool Tip

**Add a track up high for
titles graphics and
more**

Color Theory

Spanish Castle Illusion









Goals of Color Correction

- **Expand Dynamic Range**
- **Neutralize Color Cast**
- **Shot to Shot Matching**
- **“Looks”**

Color Space

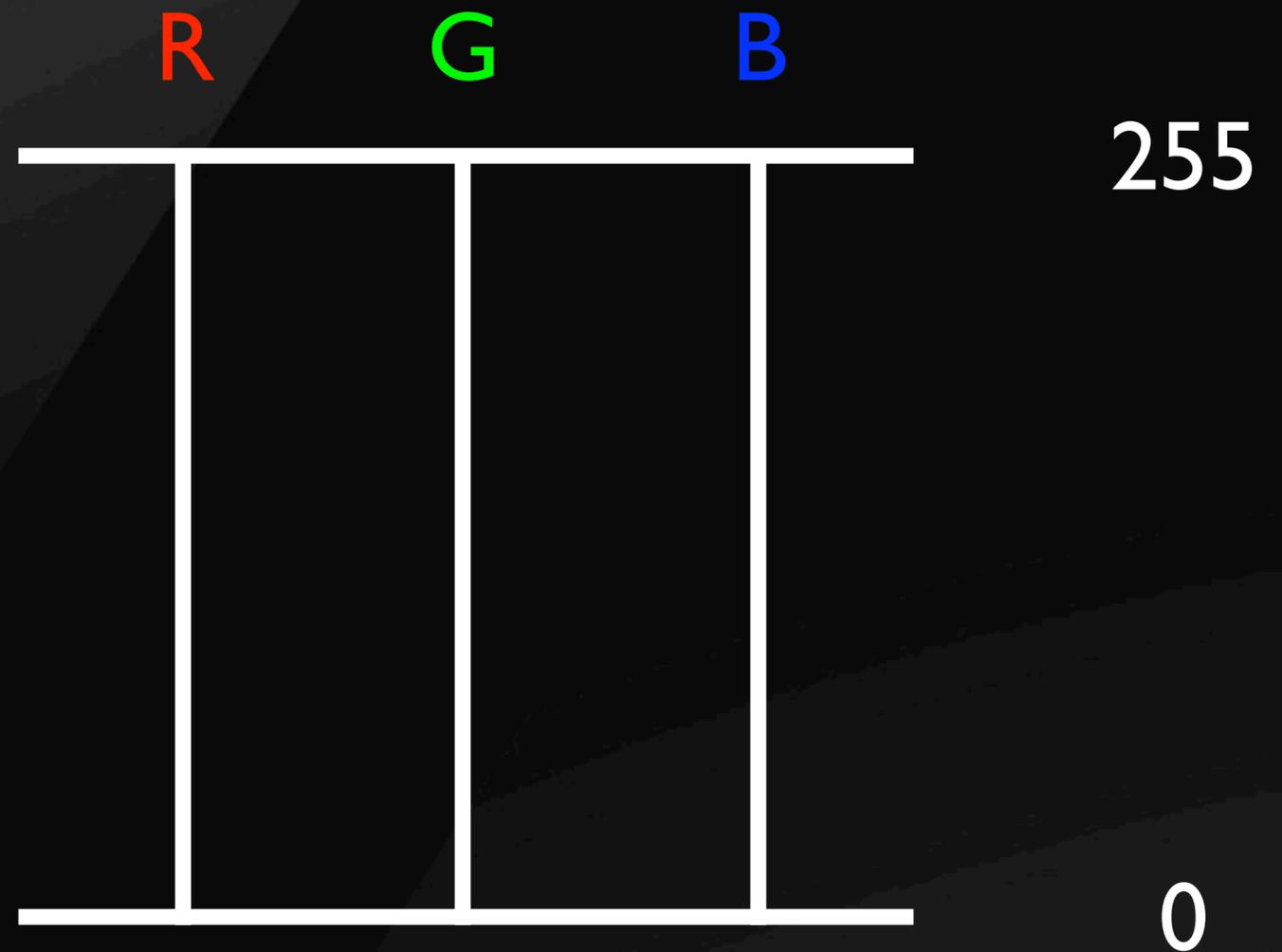
RGB

- **Computer ‘mostly’ work in RGB**
- **What’s the value for White?**
- **Black?**



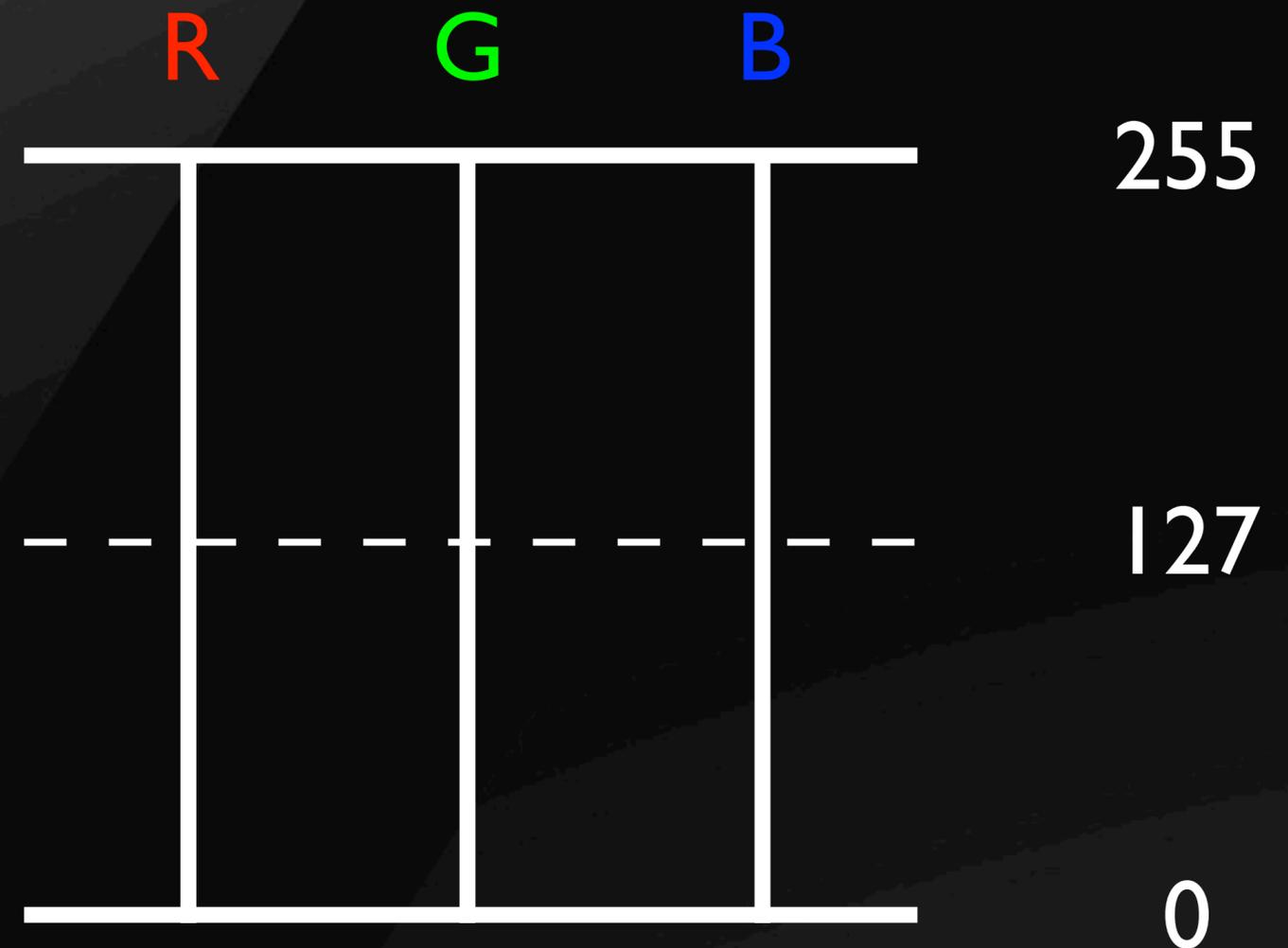
RGB

- **Color values**
- **0,0,0 black**
- **255,255,255 white**
- **What's grey?**



RGB

- All three the same = Grey (between 0(black) + 255 (white))
- Dynamic range is the 'darkest' to the lightest value



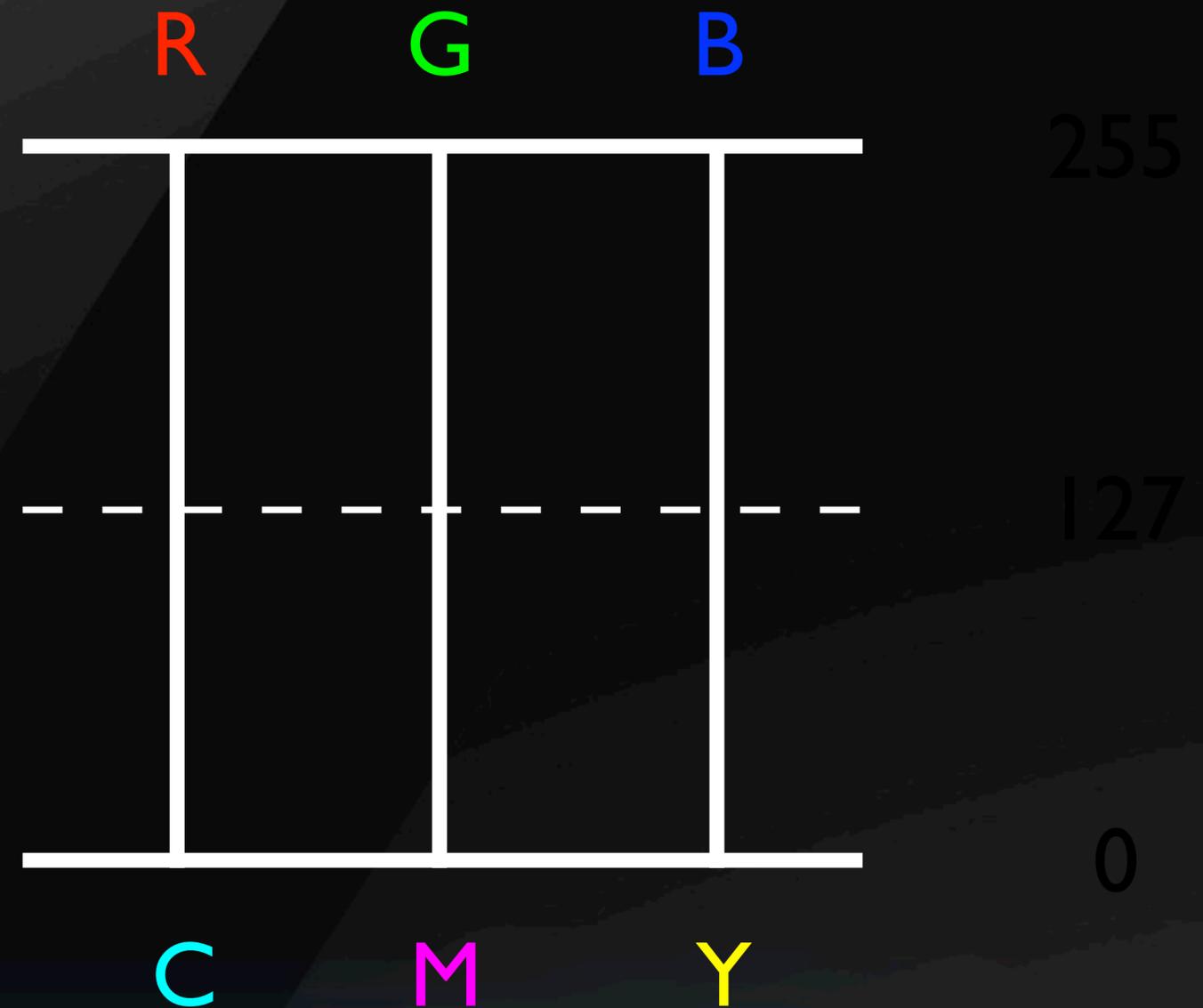
**Expanding the dynamic
range means (often)
maximizing the brightest
to darkest moments**

Goals of Color Correction

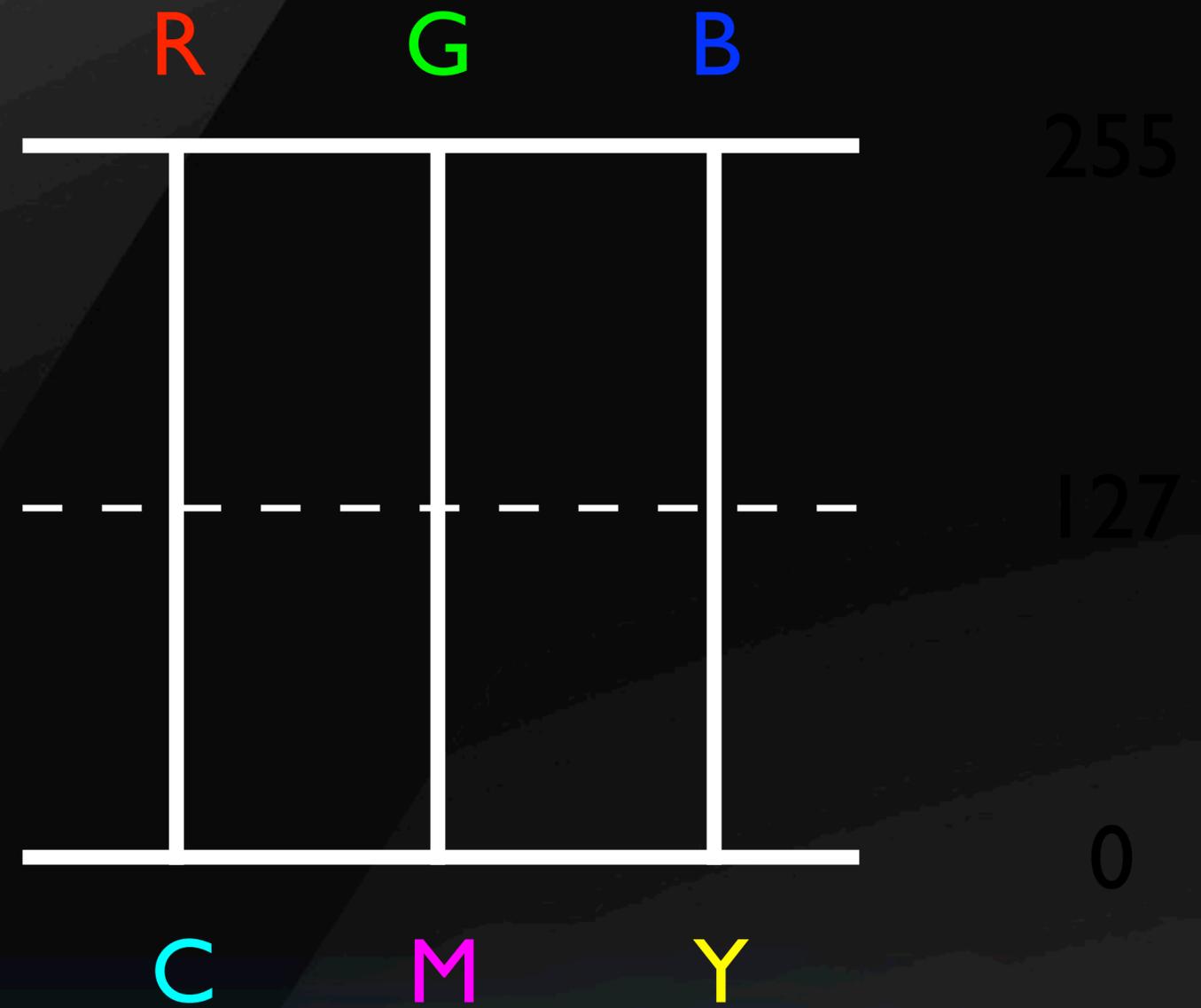
- **Expand Dynamic Range**
- **Neutralize Color Cast**
- **Shot to Shot Matching**
- **“Looks”**

CMYK

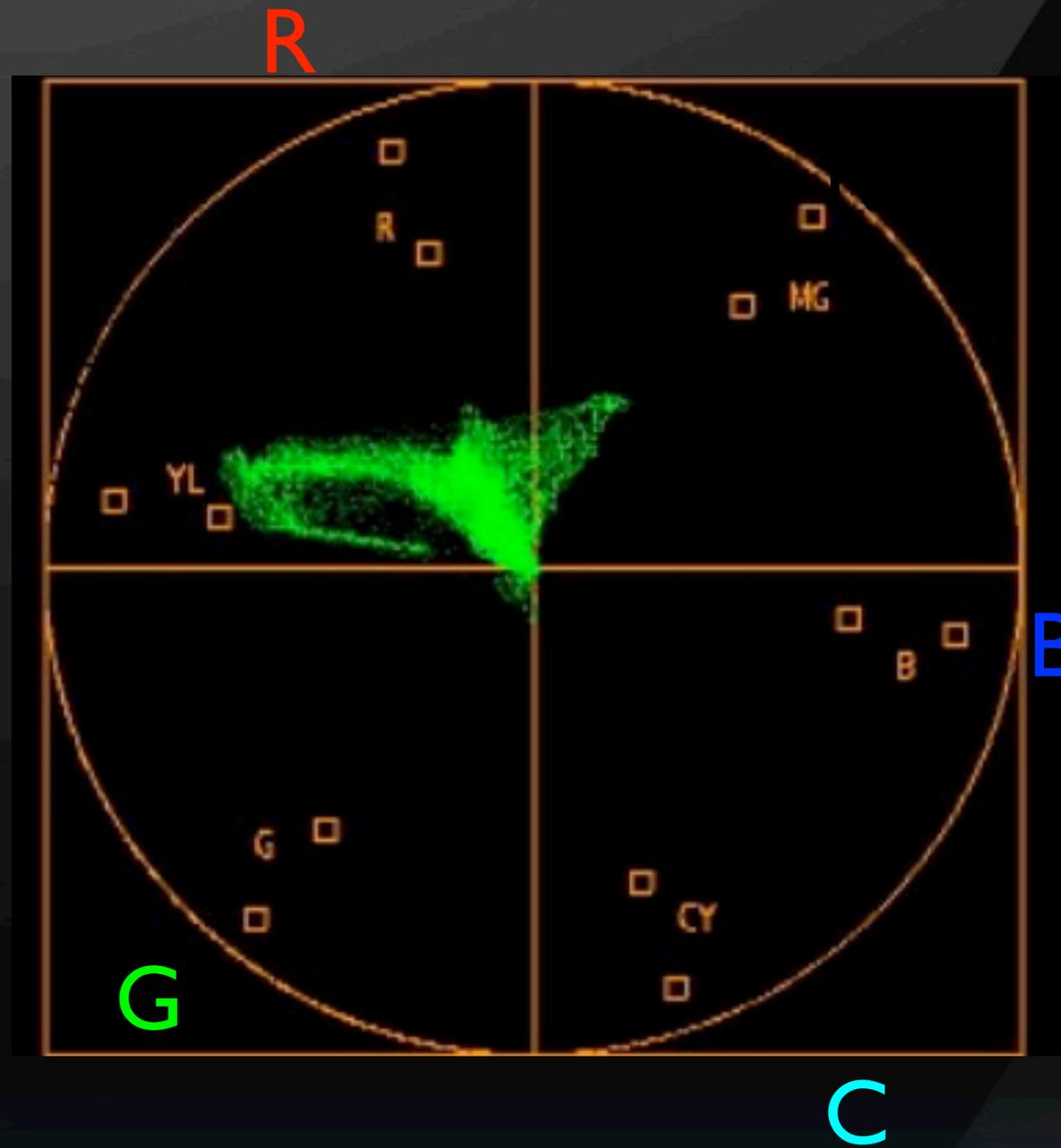
- **Print**
- **Opposite of RGB**
- **Subtractive space**
- **nothing to do with video...but....**



RGB



RGB



G

B

255

127

0

B

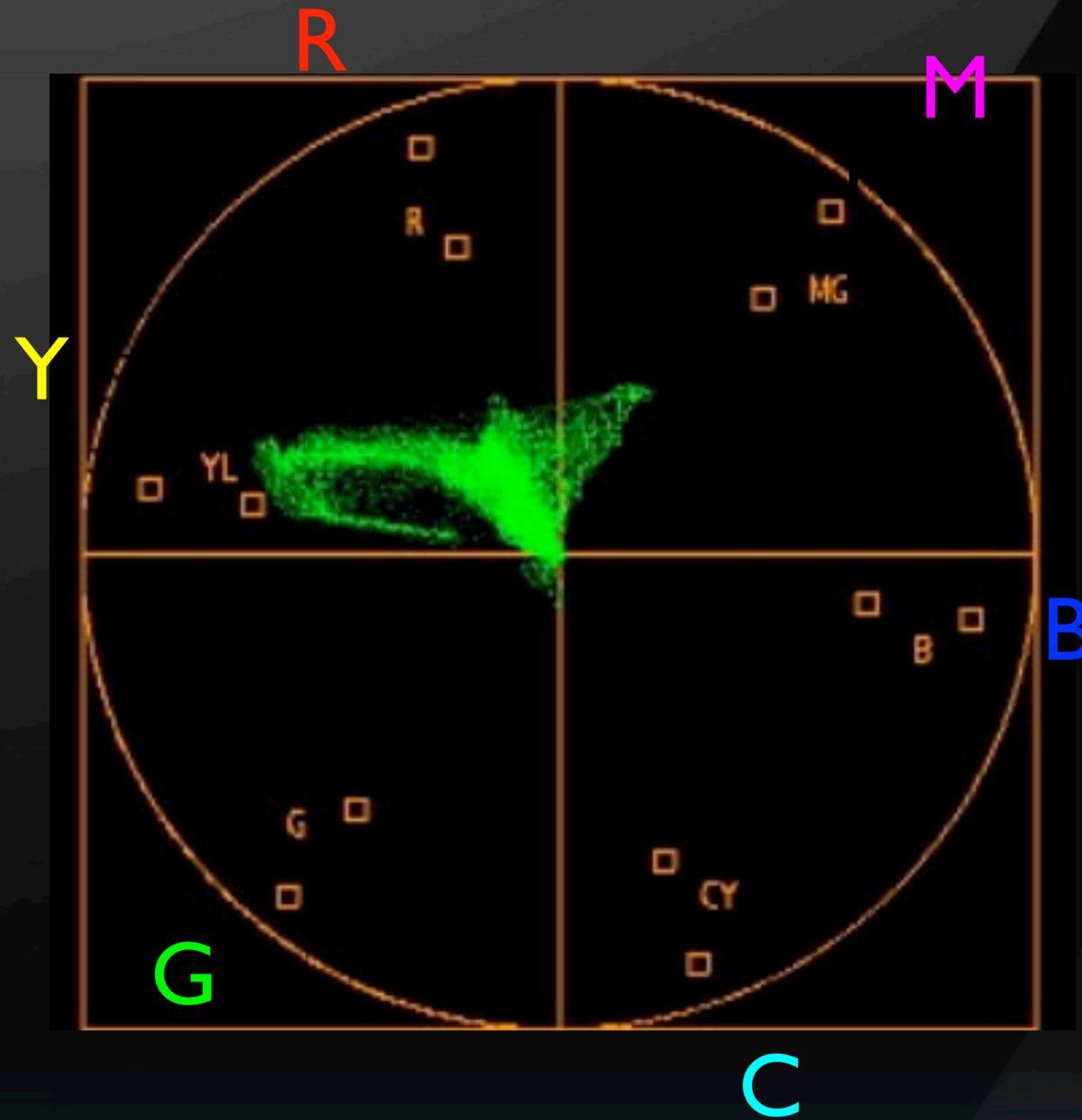
G

C

M

Y

RGB



G

B

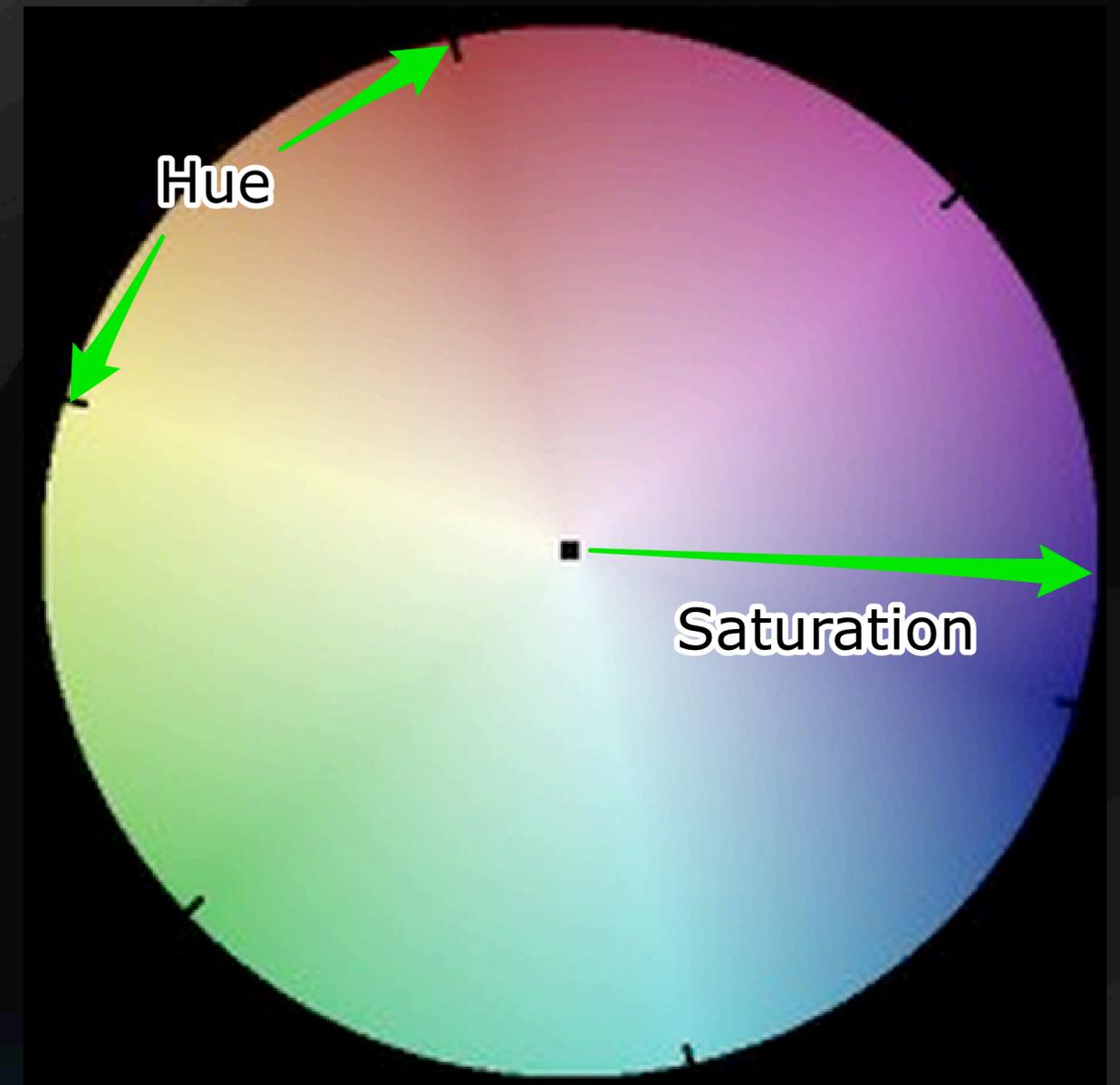
255

127

0

Understanding Color

- **Hue - What angle?**
- **Saturation**
- **Brightness is separate**



Neutralizing color casts

**Grey/white items shouldn't
have a color cast
mix opposite color**

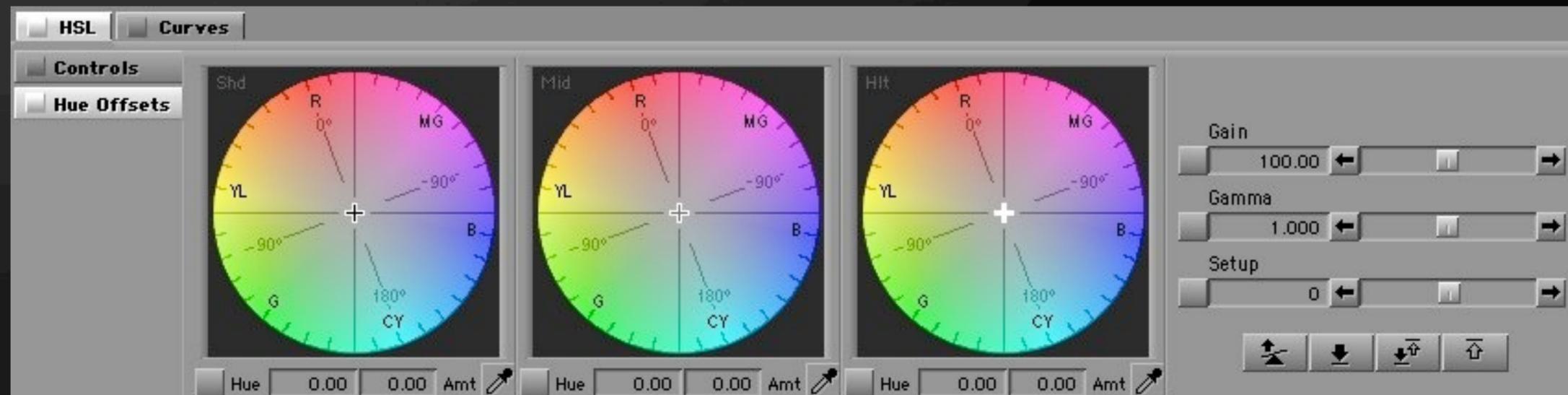
Video is not RGB

- **Y Cr' Cb'**
- **Luma + Chroma**
- **Brightness + Color**

Avid Controls

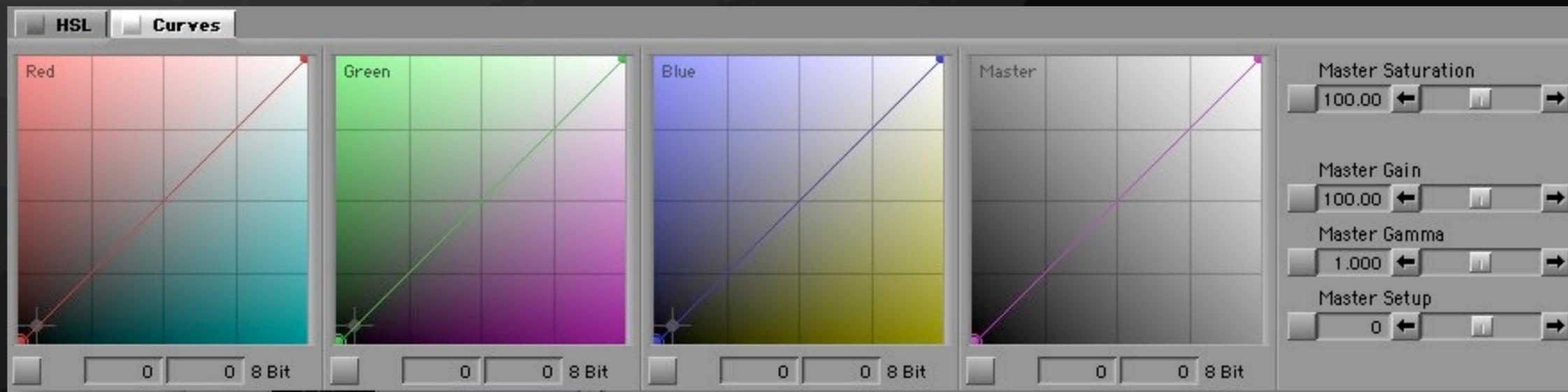
Two Sets of Controls

HSL - The way video is stored



Two Sets of Controls

RGB - the way computers think



Eyedropper

- **One of the two uses**
- **Click and drag**
- **Measure RGB**
- **A neutral item ought to be identical RGB**

Room Setup

If you can afford to do this right...

- **Must Monitor on a Calibrated external Video Monitor**
- **Hardware scopes**
- **Neutral colors behind + on screen**
- **No Sunlight**
- **D65 bulbs**

Scopes

Know Your Scopes

- **Luma Waveform - Luminance**
- **Vectorscope - Color Casts**

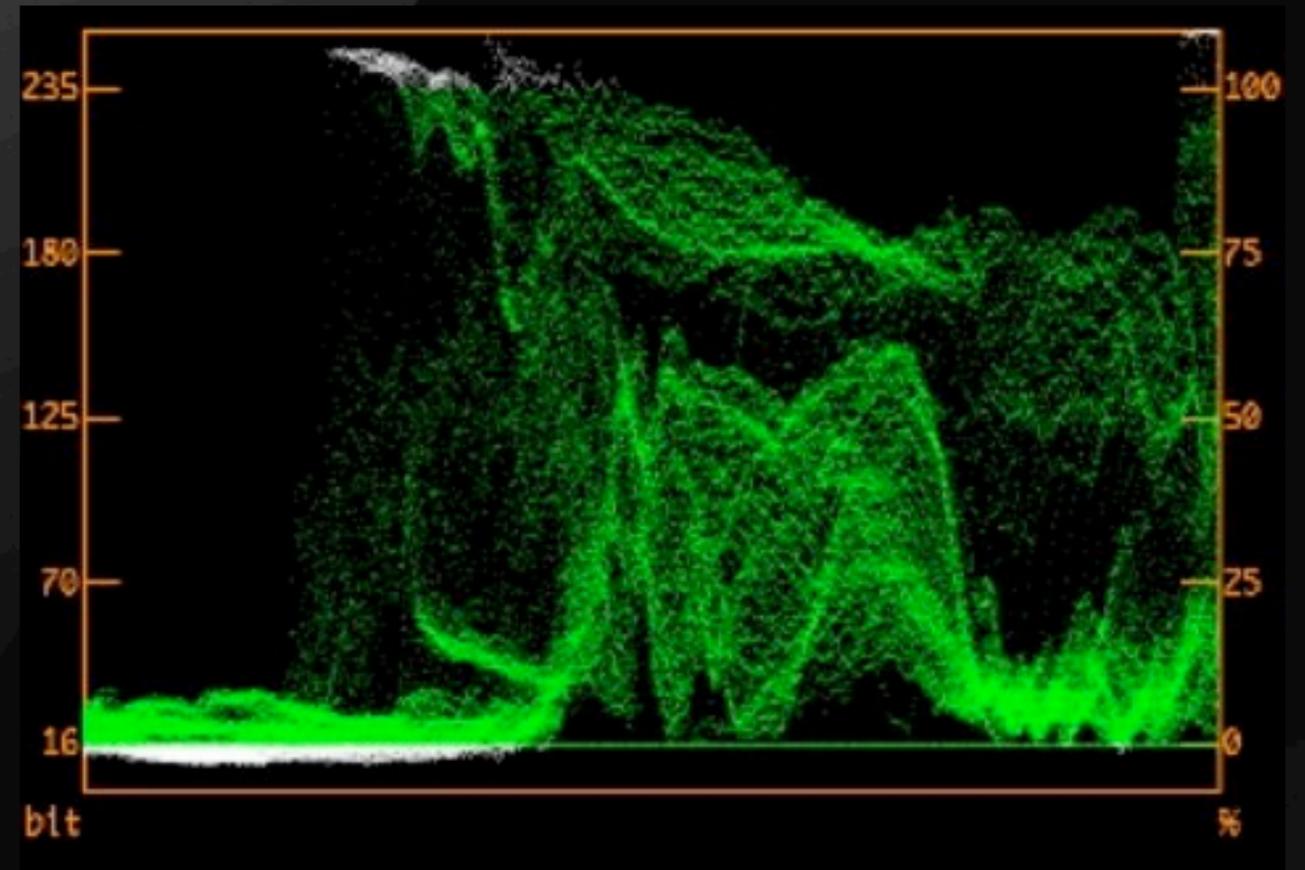
Waveform

Measures Luma

Horizontally Matches picture

Top= Bright
Bottom = Dark

Trick - Divide screen into 3
vertical sections



Waveform

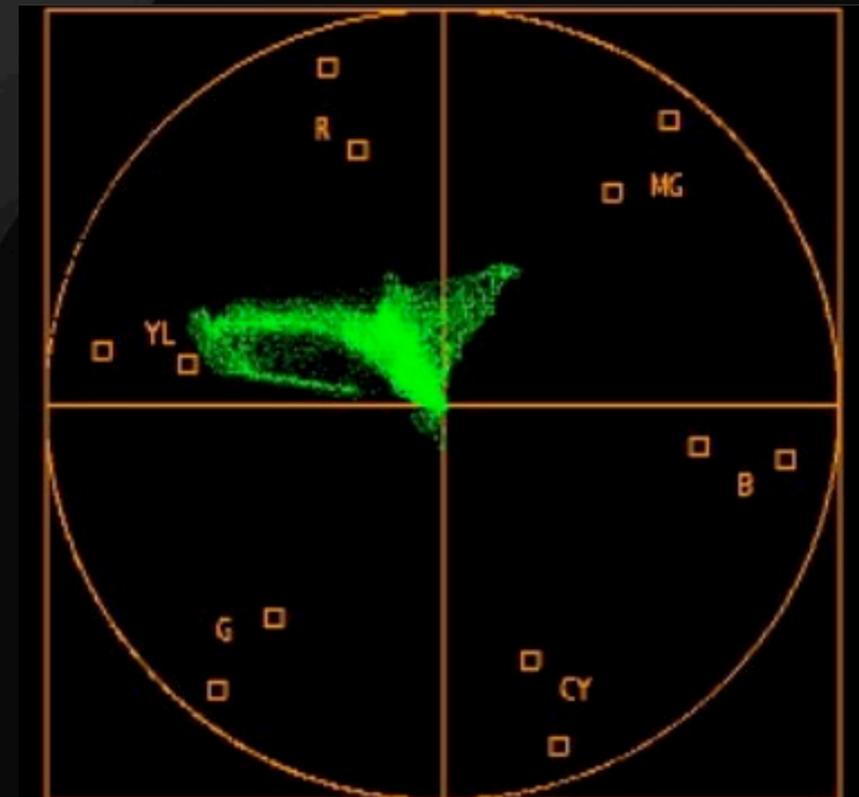
- **Between 7.5 + 100 IRE**
- **Find things using 3rds**
- **Think vertically in percentage - normal exposure is ~ 70%**
- **Photoshop comparison 16 - 235**
- **HSL - Setup, Gamma, Gain**

Vectorscope

No correspondence with the position of the pixels

“Vector” of Colors

Tip Draw an invisible line 1/2 way between Yellow and Red = all fleshtones



Vectorscope

- **Vectors of Color**
- **Fleshtones very important**
- **Can use any effect with crop to help examine**

- **Hue Offset wheels**

Parade Scope - The scope you're not using

Parade

- **RGB Versions of Waveform**
- **As light goes to 255 turns white/to 0 turns black - similar**
- **Find a “neutral item”**
- **Eyedropper (as a measuring tool) can help**
- **Neutral - R,G,B ought to be similar top/bottom**
- **Fleshtones descend R to G to B**

Controls

- **Expand Dynamic Range**
- **Neutralize Color Cast**
- **Shot to Shot Matching**
- **“Looks”**

Controls

- **BIG BOLD MOVES**
- **Color Correction Toolset**
- **Effect happens on highest active track**
- **Alt/Opt Click control dots to reset**
- **(Shift) Up/Down in the value boxes
(numbers)**
- **Control+Shift (or alt) + Mousewheel**

HSL

HSL - Dynamic Range

- **Only thing worthwhile on the “Controls” Tab - Saturation**
- **Setup, Gain, Gamma - In that order**
 - **Dark/Bright (dynamic range)**
 - **Gamma (set the mood)**

HSL Neutralize

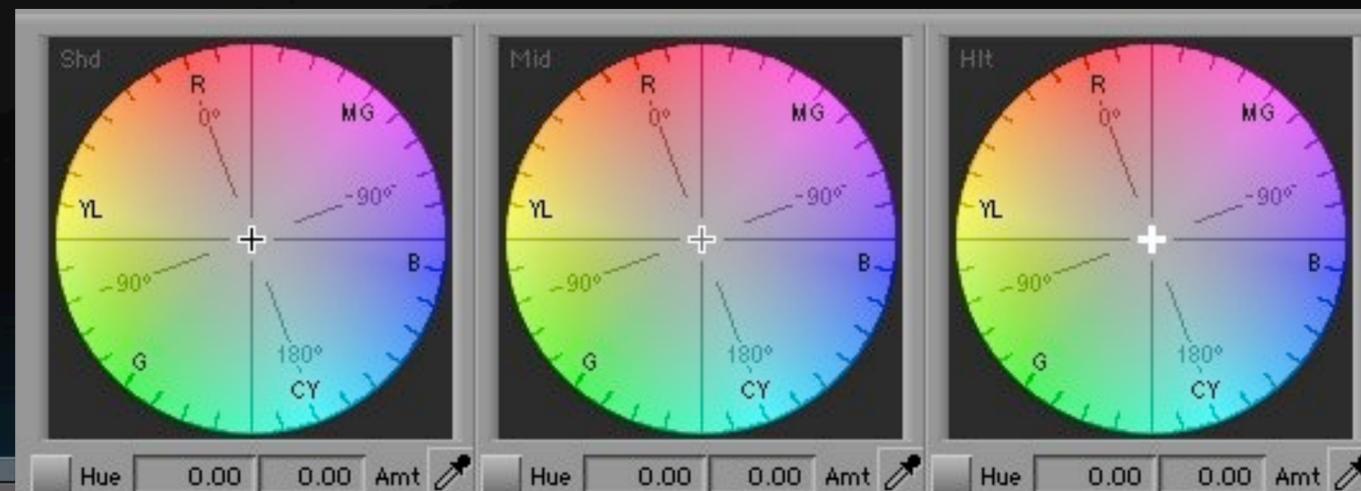
- **“Moving” the Blob - should be ‘centered’**
- **Watch for Fleshtones (where is that line?)**
- **Watch for ‘neutral’ items (grays)**

- **Midtones, Shadows, Highlights**

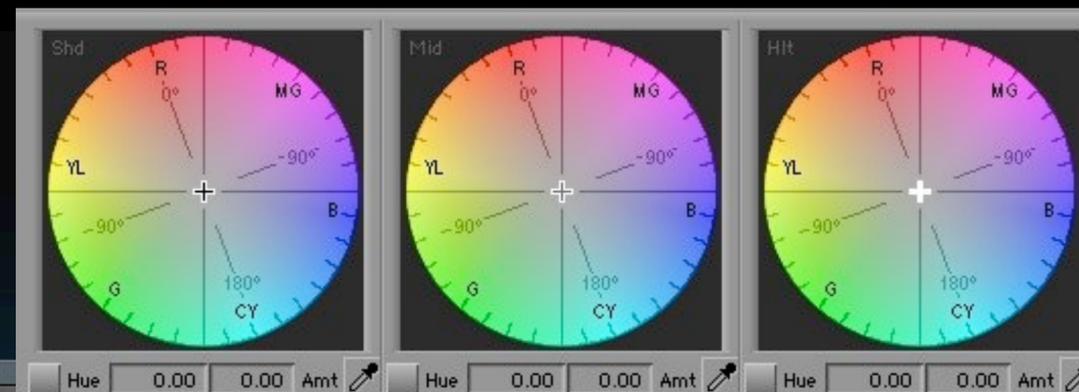
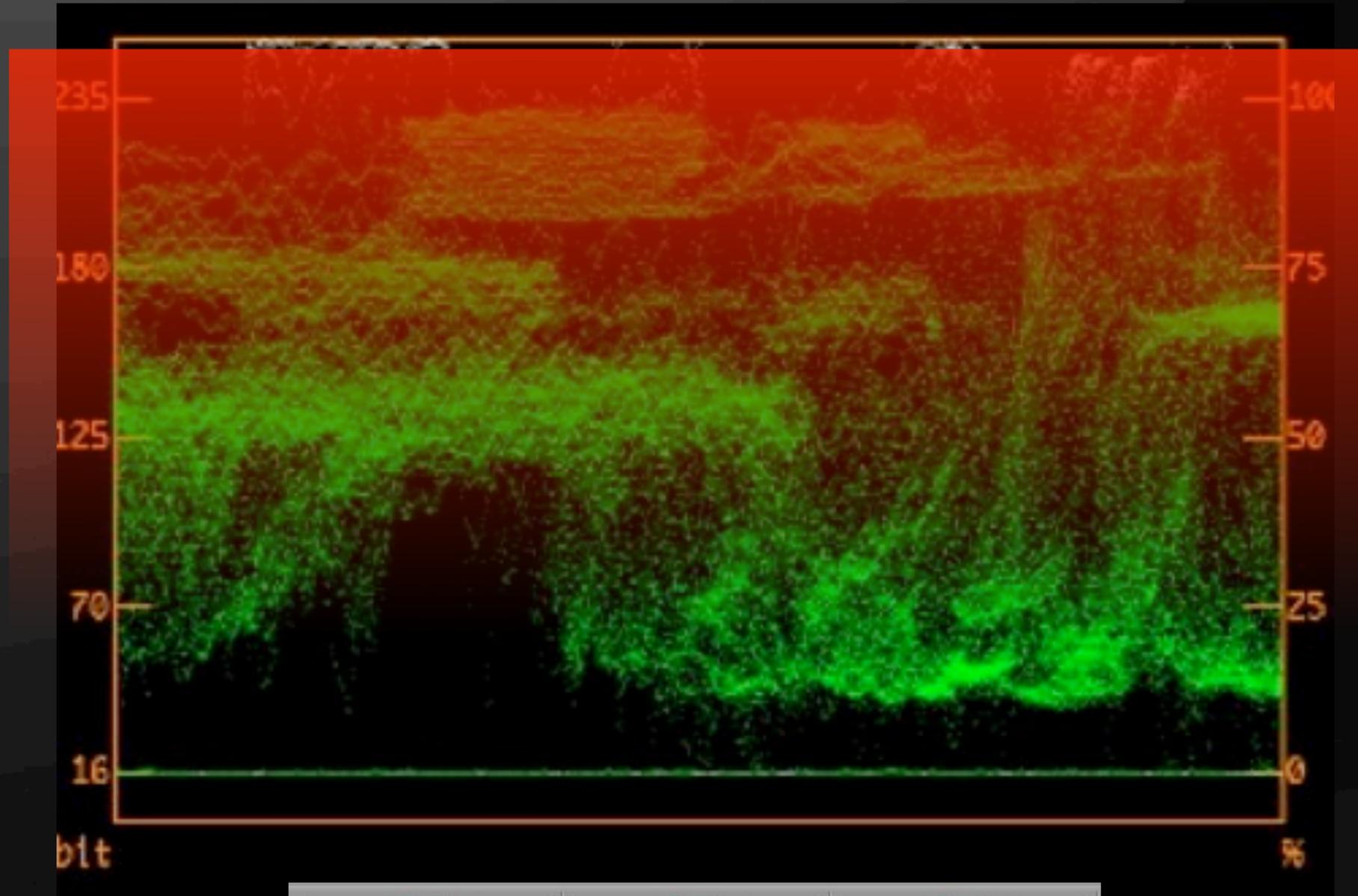
Your eyes count!

- **Dual Split**
- **Watch the Broadcast Monitor**
- **If you don't like it....it's not good.**

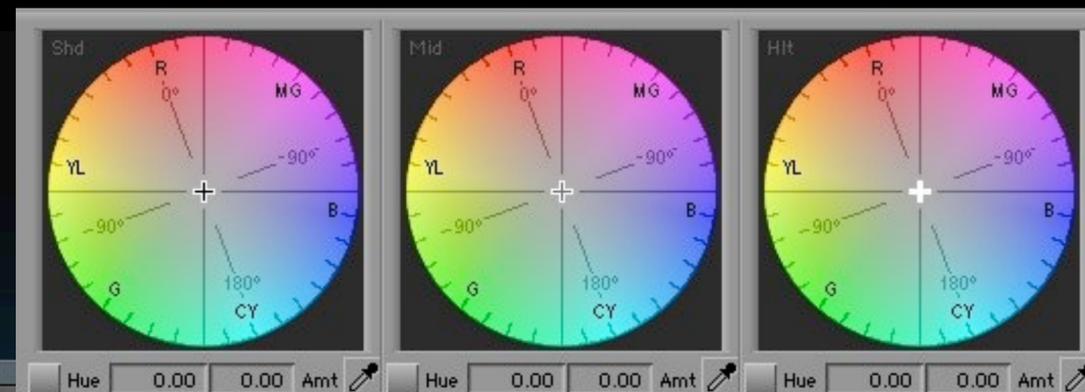
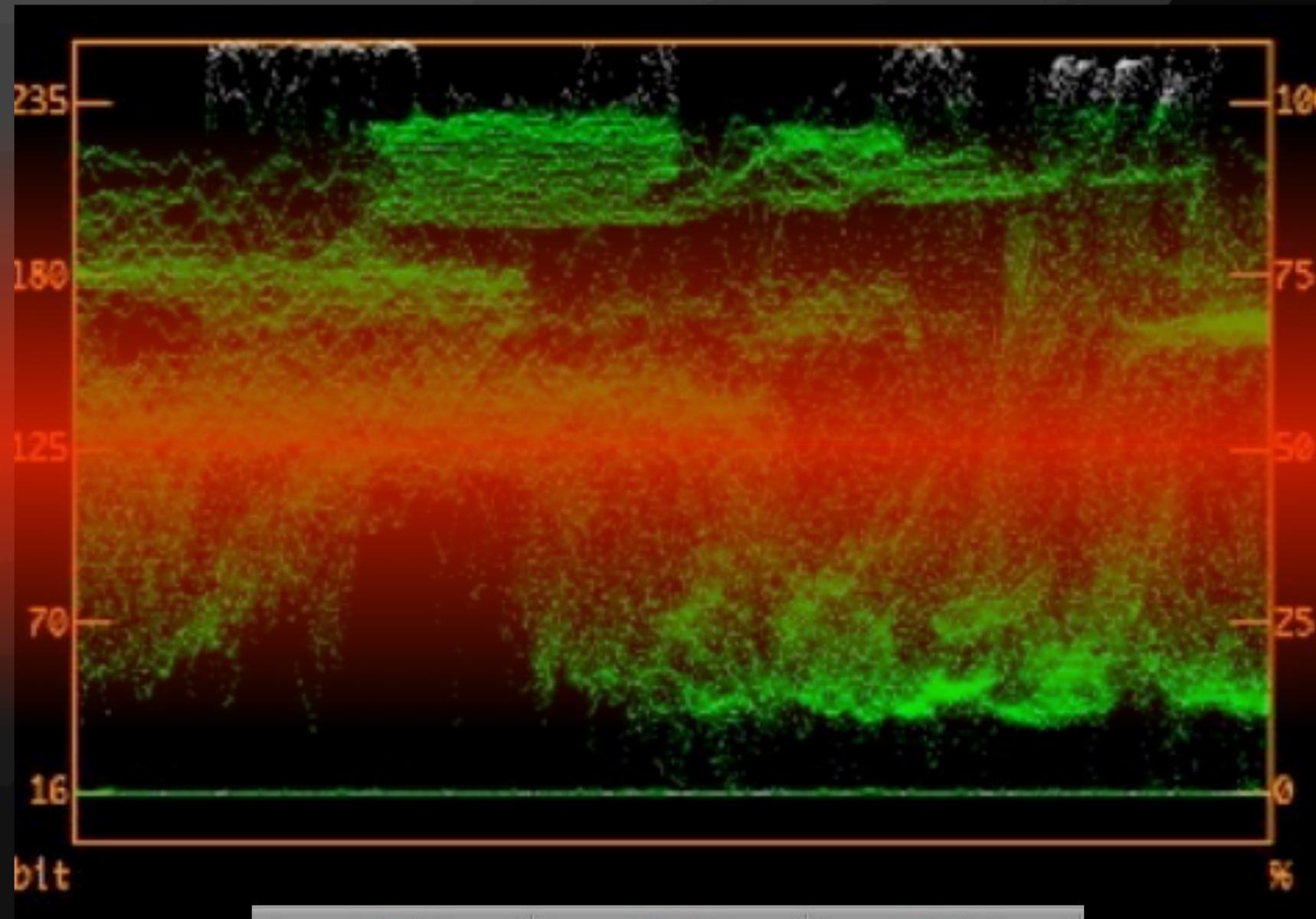
Shadows, Midtones, Highlights



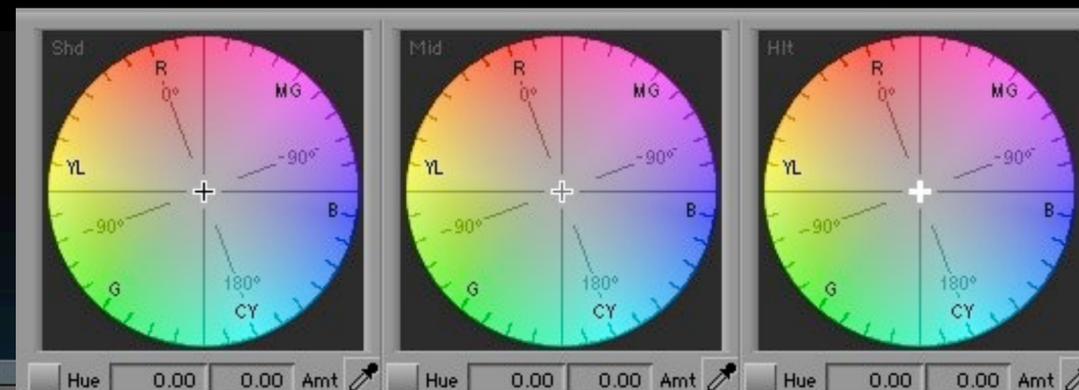
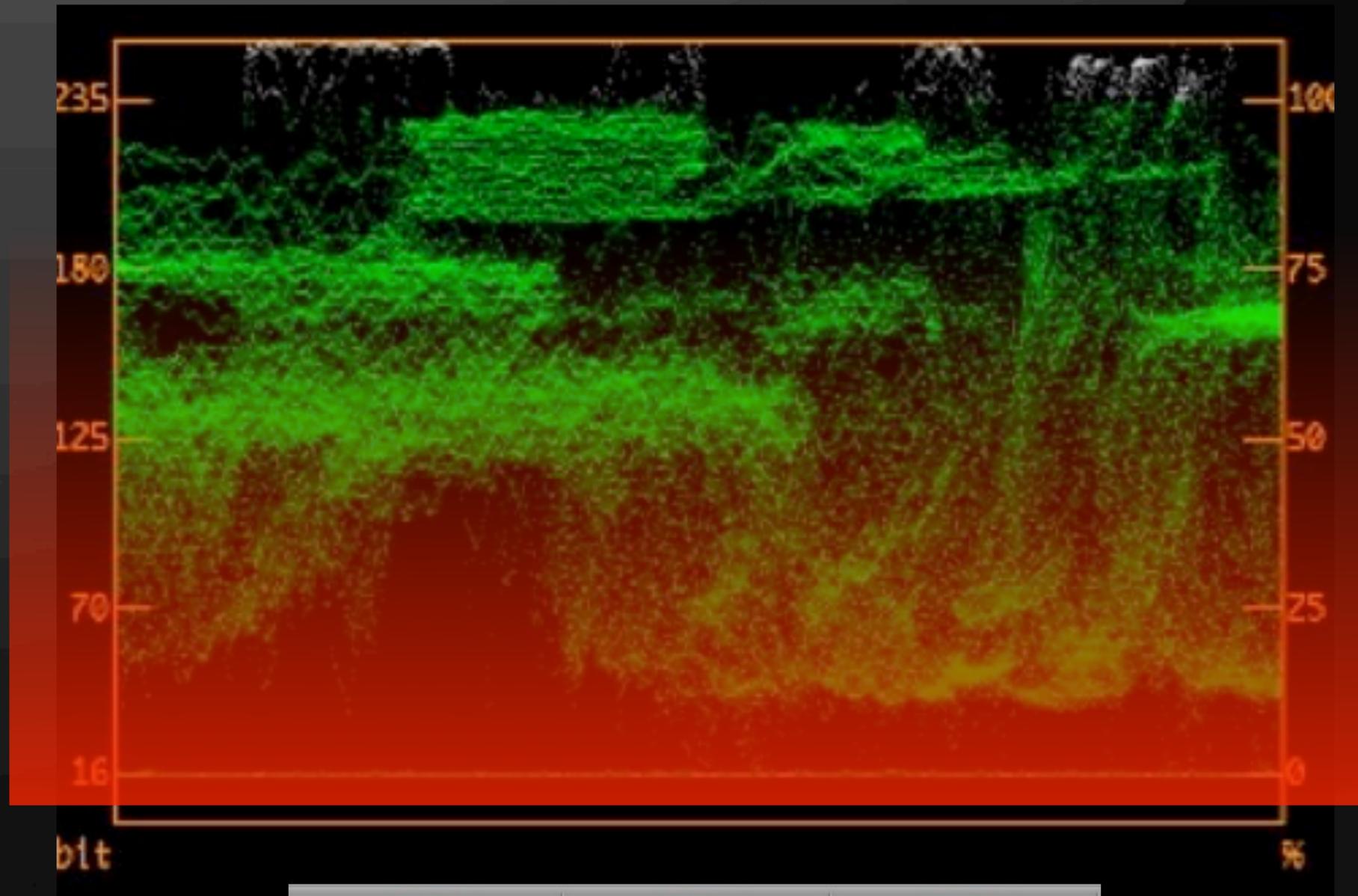
Highlights



Midtones

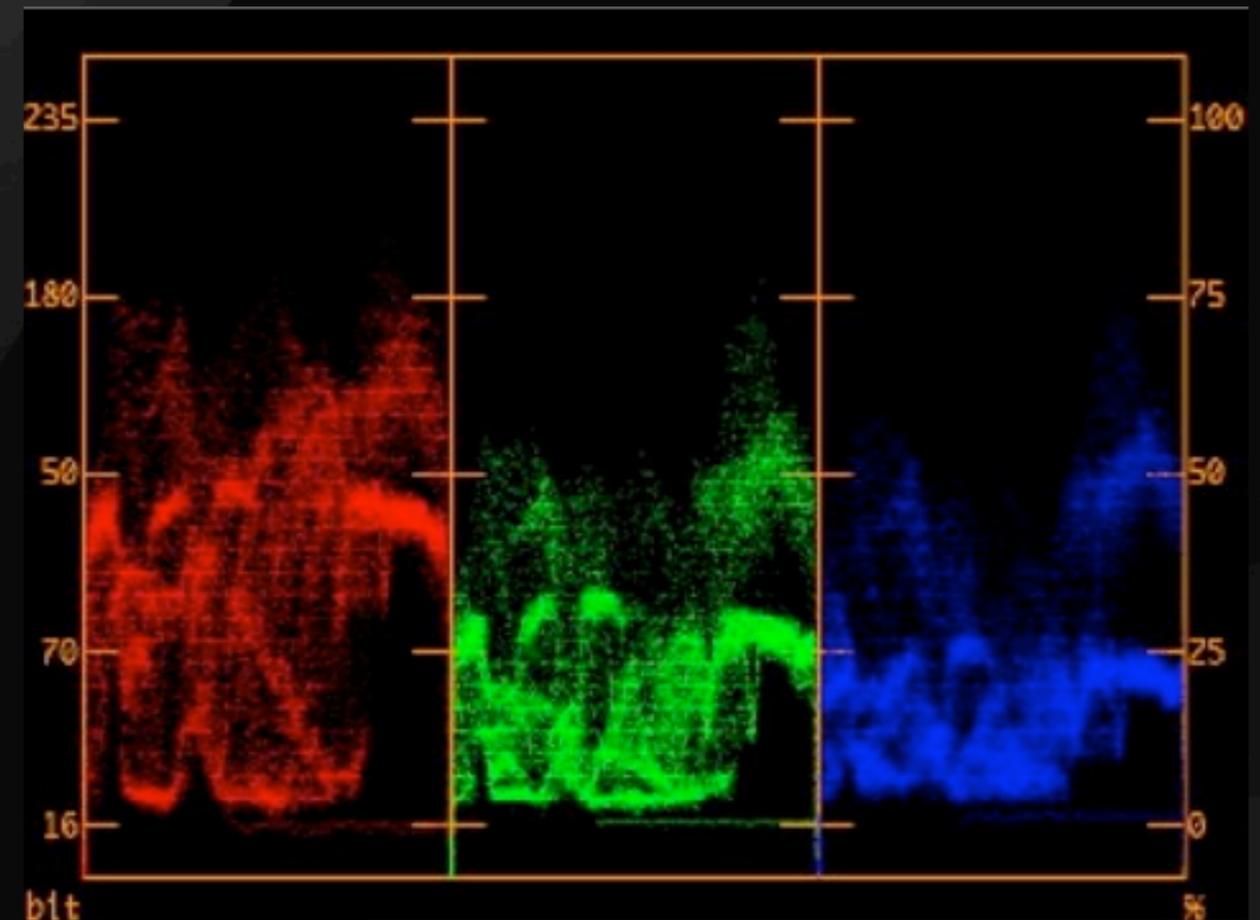


Shadows

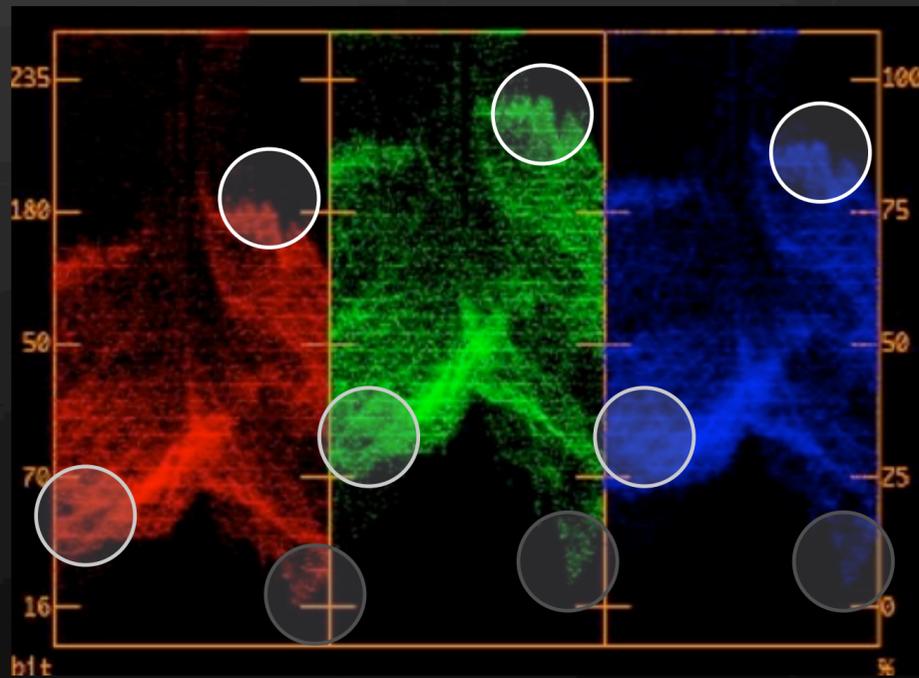


Parade Scope

- **Like the waveform - but for each channel - R, G, B**
- **as you approach white/black the 3 channels should be similar**



Bright, Dark and Neutral items



HSL Review

- **Luma range - Setup (shadows), then Gain (highlight)**
- **“Mood” - Gamma (midtones)**
- **Chroma - Midtones first, then Highlights and Shadows Last**

Curves

Curves

- **Maps input -> Output**
- **Click to add a point/delete to remove**
- **Can type values**

Curves II

- **Based on RGB math**
- **Brightening $R+G+B = \text{Luma}$**
- **Do luma last here, Chroma first**
- **Great for looks + controlled ranges**

Auto correcting

HSL

- **Built in analyze/fix**
- **Luma first (Auto black + white)**
 - **better yet - auto contrast**
- **Auto Balance**
 - **better yet - use the eyedroppers**

Curves

- **Just like in correction - Chroma first, then Luma**
- **Auto eyedropper - neutral item**
- **Auto Contrast**

Saving a correction

- **Saving the color swatch**
- **Saving the correction**
- **Alt + Color wells to store**

Autocolor Settings

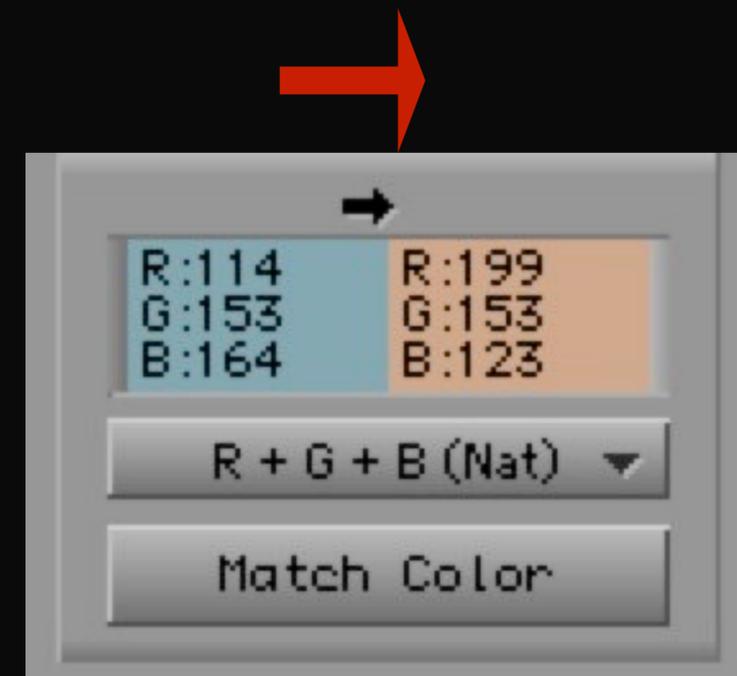
- **HSL: Auto Contrast, then Auto Balance**
- **Curves: Auto Balance, then Auto Contrast**
- **Drag and drop - autocorrect a sequence**

Shot Matching

- **Expand Dynamic Range**
- **Neutralize Color Cast**
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- **“Looks”**

Matching

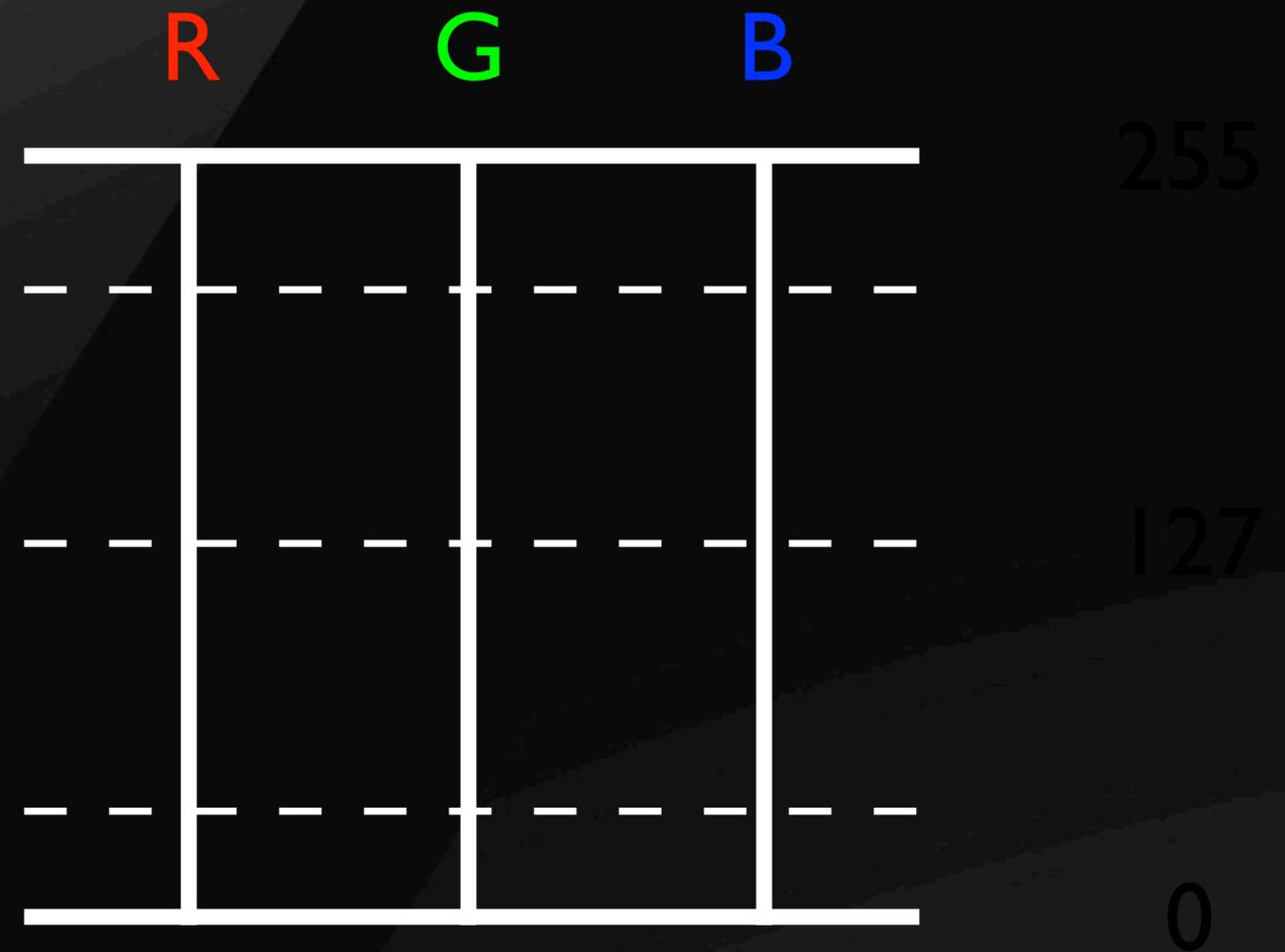
- Real Use of the eyedroppers
- Only in **Curves**
- **Natural match only**
- **PAY ATTENTION TO THE ARROW**



Legal Video

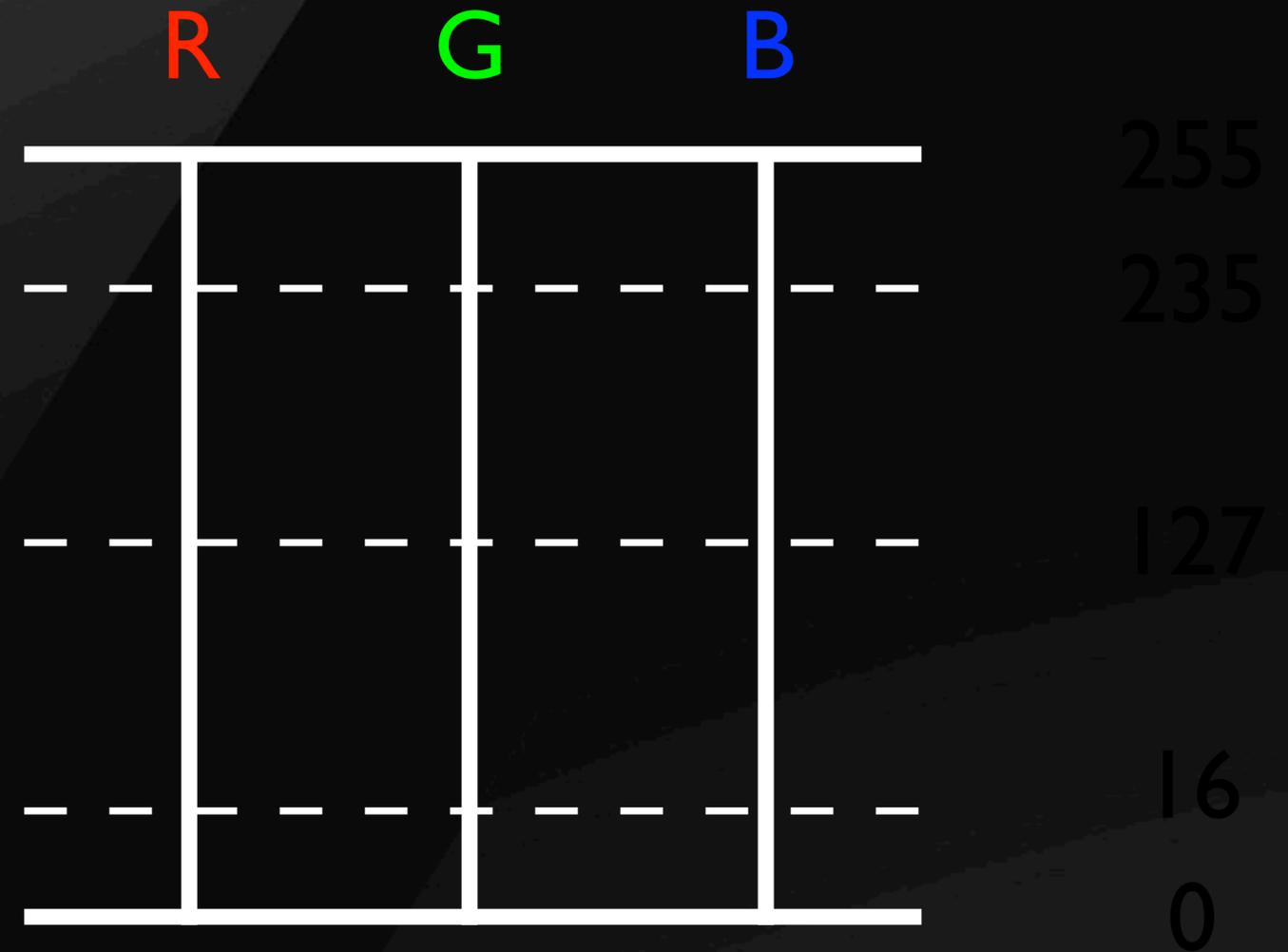
RGB

- **100 IRE white**
- **7.5 IRE black**
- **What are the RGB equivalents?**



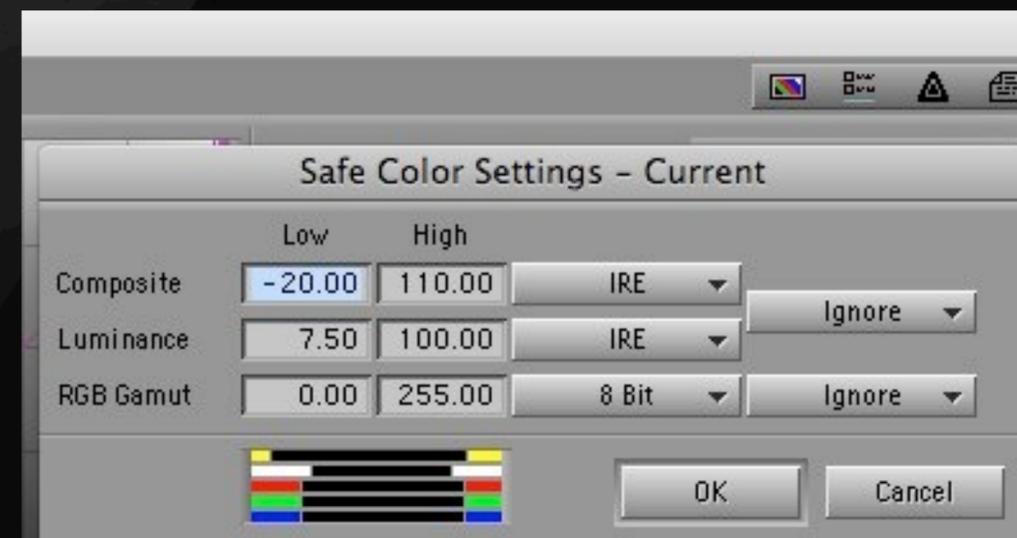
RGB

- **100 IRE white**
- **7.5 IRE black**
- **235 white**
- **16 black**



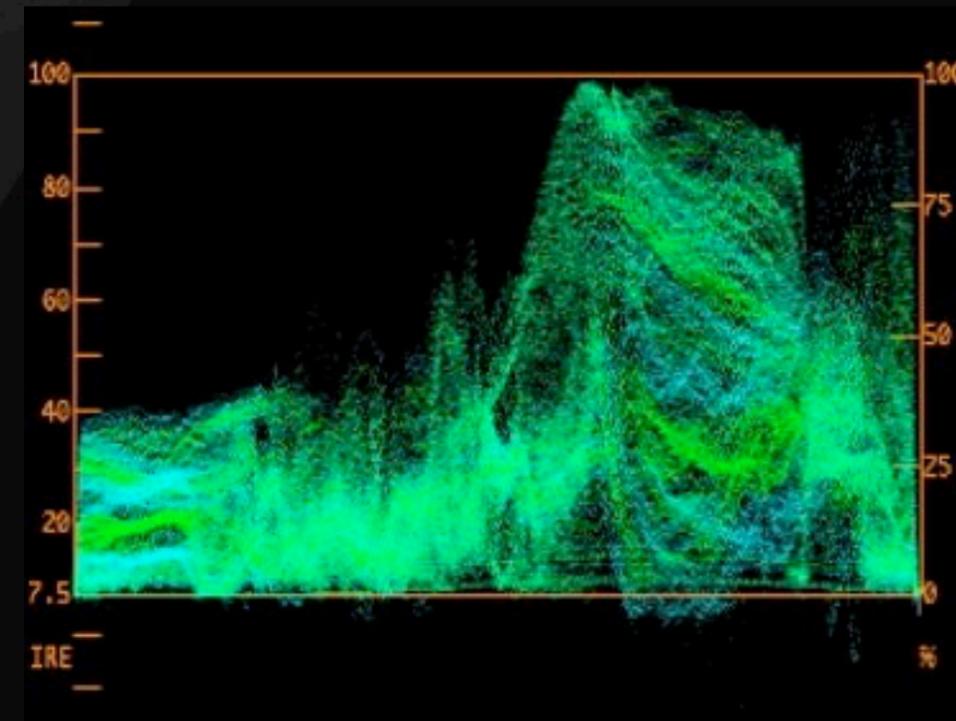
Warning Indicators

- **Show up when there's a problem**



YC Scope

- **Critical Scope - Shows IRE**
- **Luma PLUS chroma = brighter**
- **Must be lower than 110 IRE,**
- **Must be higher than -20**



Secondaries

Secondaries

- **Adjusting just part of your picture**
- **Keying**
- **Vignetting**

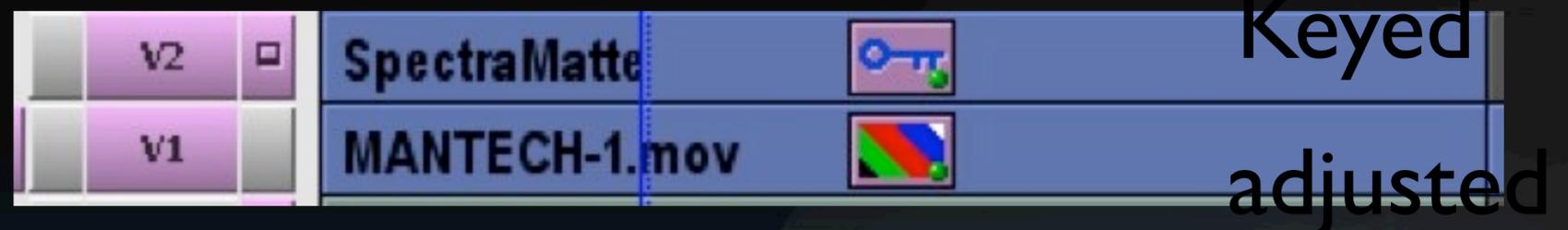
Keying

- **Shot is stacked on top of itself**
 - **Mark Clip (T), Alt -Clipboard (alt-C)**
 - **Patch and overwrite**
- **Top clip gets cut to show other clip underneath**

Keying



- **Same Clip**
- **Top is keyed (creates a hole)**
- **Exposes bottom corrected clip**



Keying Mark II

- **BCC Correct Selected**
- **Select a color (it's a keyer)**
- **Adjust controls underneath**
- **Bonus: invert matt**

Vignetting

- **Darken + Erase shape**



Vignetting mark II

- **Save a Paint vignette**
- **Pan and scan plugin/subdivide**
- **Select & 2x click the saved paint vignette.**

Review

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- **Color theory/avid controls**
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- **Autocorrect**
- **Shot matching**
- **Secondaries**

Closing thoughts

Certified training?

- **Intense 2/3 8 hour days**
- **Small classes 2-6 people**
- **Taught by professionals**
- **Authorized Adobe/Apple/Avid**
- **BRAND NEW OFFICE in IRVINE!**



FMCTraining.com

Other sessions

Wednesday

2:15 Digital Cinema Workflows in Avid

3:45 Scriptsync/Phrasefind

Thursday

9 Adv. Compression in Avid with Squeeze

10:30 BCC Effects in Avid

Noon FCPX Mastering Magnetic Timeline

3:45 Adv. Color Correction in MC

Friday

9 Practical Video Compression in a Post YouTube world

11:15 Adobe Premiere Pro Expert Tips

2:15 Media Composer Expert Tips

Jeff @ J Greenberg Consulting . Com

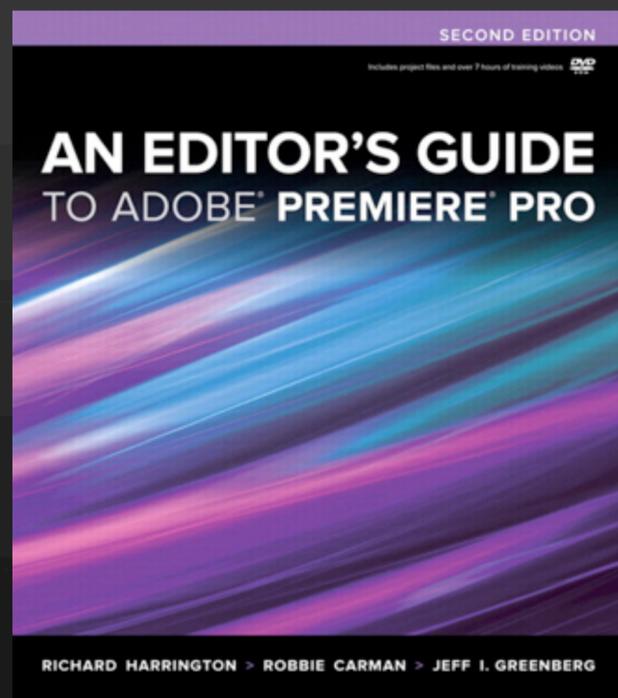
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Session Notes @ J Greenberg Consulting
(along with my blog)

Yes, you can have me educate
your group directly or talk at
your event

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