<u>Color It Corrected</u>
A DS Editor's Guide to Color Correction
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I shall not be talking about the basics of NLE Color Correction, nor shall I be going into depth about the specifics of the DS v7 Color Correction. This guide will instead be looking at some of the tricks that I've picked up along the way, some "quick-fixes" for getting a quick grade on a program when you're up against a delivery deadline (a kind of Time-Limited CC QFE!), and a few unusual tricks and fixes that can be achieved **without** the use of plug-ins.

For a general overview of Color Correction using desktop tools I would highly recommend the book written by Steve Hullfish and Jamie Fowler, "Color Correction For Digital Video". ISBN: 1-57820-201-9. This book is freely available from Amazon and others for under $50 US. It covers all of the basics of color correction, with tutorials, and explains just about every aspect of color correction that you could need covering. The information on DS is out of date, so just ignore it and read instead the section on Symphony!

We shall look at various aspects of Color Correcting on DSv7, but firstly, here's some stuff you need to know in order to get the best out of DS's CC.

        All of the adjustments in the DS Color Correction tool are additive. That is, each adjustment is in **addition** to any other adjustments you've made to the image.
        Sometimes, correcting a hue offset in the shadow areas can end up making the shadows appear brighter – bear that in mind and correct accordingly.
        There is no Secondary Color Correction within the DS Color Corrector. To achieve Secondary Color Correction, use the Selective Color Corrector, which works in much the same way as any other secondary color corrector
        When making any Color Correction, use the Bypass button regularly to compare your adjusted image with the original. This ensures you've not accidentally introduced any unwanted clipping or posterization
        Hue. Don't use it for general correction unless you know your image has had its phase rotated at some stage in its life; for instance if it's an off-air NTSC image. It can be useful for special effects though.

        Before commencing any Color Correction on any image for any show ensure that you have an accurately calibrated monitor.

Now – onto more specifics:

Effects Layout
      Very useful and quick for grading a program.

UDV Key press Combinations
      Click – Toggles settings to/from default
      Shift+Click – Toggles ALL values back to user setting. In other words, if you have several parameters on a tab all off default, **shift** clicking the tab UDV will toggle all those values to their user setting. Clicking **without** using the shift key will only toggle those parameters that are 'switched on'.
      Ctrl+Click - Resets all values to default *for the duration of the effect* and *removes any animation* of that parameter.
      Ctrl+Shift+Click – Resets value to default and *does not remove animation*

UDV Hierarchy

Main PPG Tab
      Sub-sections on left hand side
      Tabs within sub-sections
      Parameters on sub-tabs

Match Color
      HSL Match Color may well give a better (closer) result than Curves Match Color. However, Curves Match Color has "Natural Match" which only adjusts hue without affecting saturation or luminance and may be more useful for some images. Be careful where you pick – try to be precise with luminance values of the two images.

Reconnect Viewer
      Can be very useful to reconnect to CC when working with many stacked effects. You may well wish to use Ctrl+Click to open the CC in a floating viewer in this instance.

32 bit processing
      Can help a lot with stacked effects. For instance, you might apply a timeline or track effect for an overall look and then apply individual clip effects to correct each clip.

In no particular order, a few observations…

Reducing gamma slightly will perceptibly increase contrast.
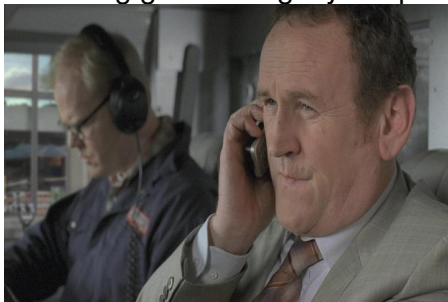
Gamma at 1.2   Gamma at 0.85

Start your CC session by adjusting levels i.e. set black, midrange, brightness, gamma.

Consider how bright/dark the image should be. (Are there shadows? Do the highlights 'pop'? Is it a sunny or overcast day?)

Maybe adjust the ranges curves to suit the overall image brightness/ tonal range. This can take quite a while to get neat, so you may wish to save off a preset once you've made one.
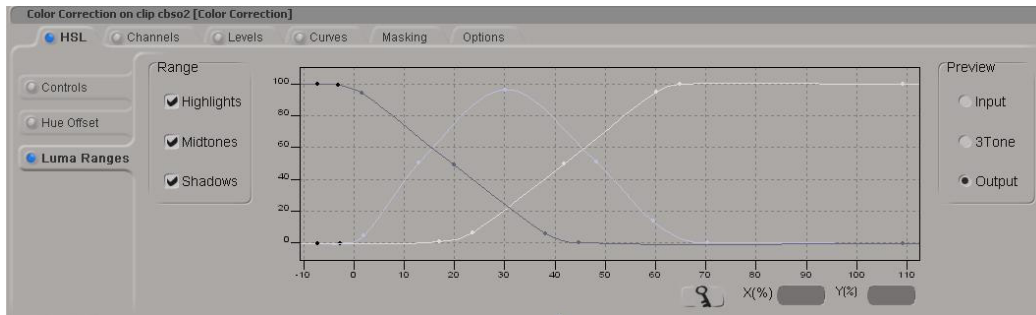
Ranges adjusted to suit dark image

If the image needs "pushing" in a particular direction to remove, or indeed to introduce, a color caste, start with the Master HSL Hue Offset control, keeping out a close eye for unwanted color castes being introduced to shadows and highlights. Use the eyedropper. Use judiciously. Aim for correct skin tones.

Shot with obvious blue caste

Adjusted after picking colour on jacket

Be careful what you use for comparison/sampling purposes. For instance, is that suit you're sampling black, or is it actually dark brown?

Next adjust shadows, then midtones, and then highlights.

Let's take a look at this image with a pretty much white sky.

There are several directions we could go with it. We'll examine three

Using the HSL Controls, adjust the Highlight Gamma down until we reveal some detail in the sky, then raise the overall level with the Highlight Gain. Next, adjust the Hue Offset to add some blue. We might need to adjust the Range Curve to limit the effect on the midtones. Adjust the midtones by adding a little warmth back.

The result of this is that we have indeed added some blue to the sky, but the clouds look dark and menacing. This may be the desired effect, or you may wish for something less threatening.

This time using the Curves. Note that there are three different layouts of the Curves tab – Combined, RGB and Luma/Alpha/Master. Generally, I find the Combined layout is fastest and most convenient for me – you use what you prefer. Note the difference between Luma and Master: adjusting only the Luma curve will not affect the relative levels of the RGB channels, so you won't see big jumps in chrominance.
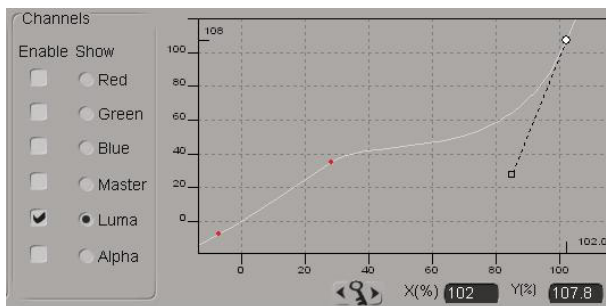

Adding a control point to the Luma curve allows us to give a pronounced "sweep" to the top end of this curve. This will "stretch" the highlights much as we did in the previous example – bringing out some detail.

Using the HSL Hue Offset controls as before allows us to add some blue, resulting in much the same image as above, with the same inherent problems. Note also that both this and the previous method increase the noise considerably in the sky.

Our third example uses a home-made **preset tree – SkyBlue**, which is supplied.
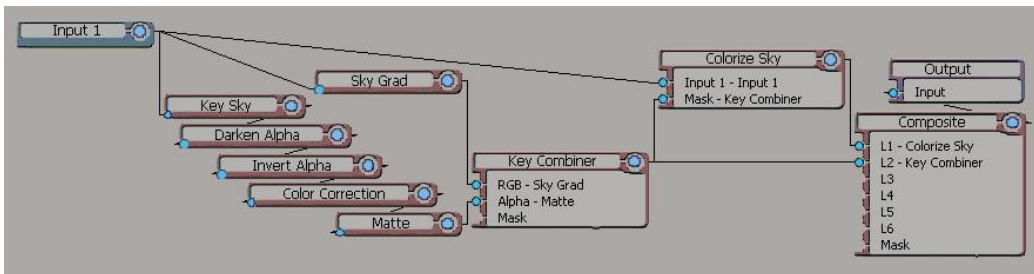
This tree uses a Luma keyer to key the detail out of the sky, followed by a CC to lower the level of the alpha. That's followed by an Invert Alpha and yet another CC to raise the alpha level back up. These two CCs along with the Alpha Invert reverse the brightness of the clouds and sky. This enables the sky to be darkened slightly before adding blue to it. The result is a subtly blue sky with white-ish clouds scudding by. A blue grad is also available to add to the result if required. I shall go through this in more detail in the Keying seminar.

Time-Limited Quick Grade

Crush the blacks a little, increase contrast slightly, and warm up the midtones.

Before

After (may not show too well at this size)

Lastly, we'll look at a couple of special effects that use purely native DS controls.

The Tritone effect has the added advantage over 3rd party Tritone effects that by adjusting the channels' brightness **on the Hue Offset tab** you can adjust the relative ranges of the three channels.

The tree for "Bit of Fun" also shows a good use of Cache nodes used purely to tidy up the tree interconnections.

"Tritone" using only the DS CC
(Preset supplied)

I've called this "Bit of fun"
The preset should be considered a starting point for future experimentation.

I hope that the above has been, if nothing else, a source of inspiration to get you thinking about new and fresh ways to use the DS Colour Correction tools.

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