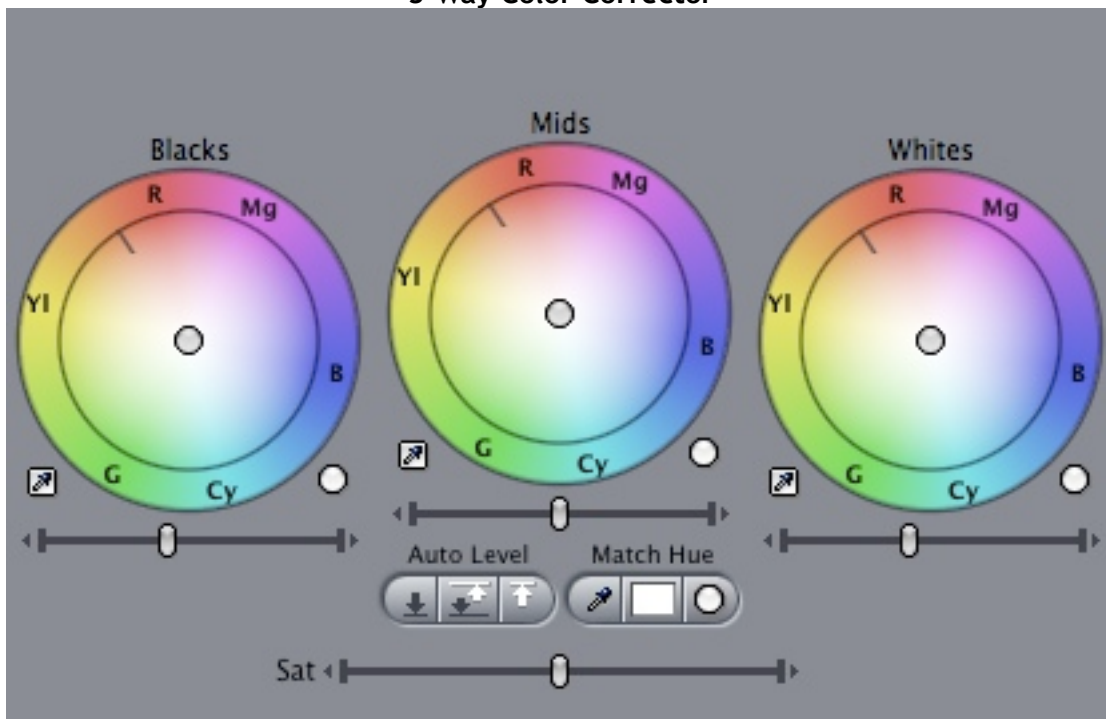


## Color Correction

Best practice: use an NTSC monitor. Second best practice: calibrate your monitor to NTSC using color bars. Use Window>Arrange>Color Correction.

### 3-Way Color Corrector



**Blacks:** primarily affects the darkest portions of the image, such as dark shadows and underexposed objects.

**Whites:** primarily affects the brightest parts of the image, the highlights, such as a bright window or a lamp shade.

**Mids:** primarily affects the mid-range portion of the image. Basically, the Blacks and Whites define the darkest and brightest portions of the image, and the Mids affect everything in-between. Its in the Mids where you find the most detail.

### Luminance Sliders

To adjust luminance of the Blacks, Mids or Whites, there are sliders under the three color wheels. Left is darker; right is lighter. Clicking on the little arrows on the ends of the sliders will let you move the sliders in smaller increments.

### Color Wheel

The Color wheel adjusts the color cast of the image. For instance, you could use this to correct footage where the white balance is off. The further the central circle is moved (click and drag), the more intense the color shift.

In general, you may want to begin with the Mids color wheel, and only use other controls if needed. As the Mids wheel affects the entire mid-range of the program, it will affect all but the brightest highlights and darkest shadows, and in turn, the overall majority of color information in the scene.

### Eyedropper Tool

Next to each color wheel is a small eyedropper. This can be used to white balance, or to match color casts between two different clips.

To white balance: Start with the eyedropper next to White and click on it.

Next, go to the Canvas, and click on a part of the image that should be a neutral white. This will automatically rebalance the image in the highlights, which will also have an impact on the rest of the image.

To match a color: Click the eyedropper tool. Choose a color in the Canvas or Viewer. The eyedropper next to the appropriate color wheel will turn green. Use it to choose the color in the Viewer that you want to correct.

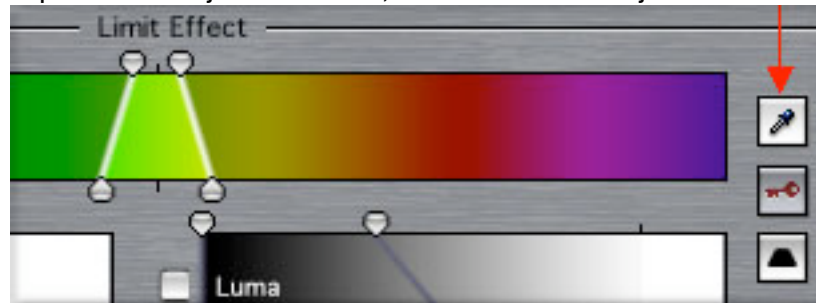
To reset a control: click on the round button to the right of the wheel.

To reset all controls: shift-click on the round button to the right of any wheel.

### Limit Effect

Limit effect allows you to control one color only. Once a color is selected, then any changes made in the top part of the filter only apply to the selected color.

Click on the eyedropper under Limit Effect, then click in the canvas on the colored object that you want to affect. Use the handles on the color, saturation, and luma bars to adjust the color selection. Top handles adjust tolerance, bottom handles adjust softness of selection.



### Copying Color Correction

At the top/left of each Color Corrector tab in the Viewer, notice the Copy Filter controls. They are the little arrows with 1 or 2, on either side of a little hand icon.

If you click on an arrow to the left of the hand, it copies the settings of a previous clip (the first or second clip to the left in the Timeline). If you click on an arrow to the right of the hand, then it copies the settings of the current clip to one of the next clips in the Timeline (first or second clip to the right).

The hand is a "drag filter" control. Click and drag on the hand to another clip in the timeline. This copies the entire filter (not just the settings) to the clip. You can also use Paste Attributes (option-V).

### Video Scopes

The Video Scopes are primarily used to insure that luminance and saturation fall within broadcasters' acceptable ranges.

The **Waveform Monitor** shows luminance levels, and displays information from left to right in the same relationship as the video.

For NTSC or PAL, the darkest blacks in the image should map to black (0). The brightest white should max out at White (100) and not go above.

The **Vectorscope** shows color saturation (and hue). It is basically a color wheel representing the three primary colors (red, green and blue) and the secondary colors (yellow, cyan and magenta). Small purple "targets" show the maximum NTSC levels for each color.

### Broadcast Safe Filter

Achtung! This filter clamps the white levels above 100. Using it indiscriminately (or without Color Correction) can result in really flat highlights.