

Bleach Bypass

Bleach Bypass, Skip Bleach, Bleach Reduction, ENR, ACE and Silver Tint are all basically the same process that result in a distinctive high contrast, harsh, faded look. This article looks at creating the look during processing, with da Vinci hardware, and with Photoshop software.

The traditional film process leaves a black and white image superimposed over the color image. The technique has been around for a long time, and is continually in vogue. Good examples include *Seven*, *Evita*, *1984* and *Saving Private Ryan*, but of course there are numerous other examples that imitate the effect using color enhancement in post-production.

Traditional Film Lab

Reducing or skipping the bleach bath during color film processing, leaves some or all the silver image and couples less of the color dye. The retained silver increases the contrast and grain, while the reduced dye desaturates the picture. Sometimes there is also a slight alteration of color balance, usually towards cyan. Maroons and blues tend to go black.



Bleach Reduced Print

Labs must stop normal processing to reconfigure their system, and less silver is recovered. . Consequently it is more expensive to do and there is usually an extra charge.

Each lab has its own recipe for the technique. Some can only do a complete bleach bypass; others can offer 50% reduction by skipping the bleach accelerator. Technicolor is credited with introducing the concept and offers its own ENR process, which adds a separate black and white development. This is more controlled, but not reversible.

Bleach reduction can be applied during any color processing including original camera negative (OCN), intermediate positive (IP), intermediate negative or release print. Skip bleach on negatives result in thin, blown out highlights, whereas skip bleach prints have deeper, heavier shadows and even less saturation than OCN. The results are always hard to predict, and so it is more common to apply the process to intermediates or prints. However, skip bleach on a large number of release prints is expensive and so there is the risk of distant or provincial markets making conventional prints and altering the intended look considerably.

The extra density created by the silver image can add as much as 1-2 stops of exposure and so it is usual to underexpose and use flat lighting to produce good results. Another way to control the contrast is to flash the film before processing. Many cinematographers also suggest using diffusion filters or nets to compensate

for the harshness. Push developing strengthens color saturation, but also increases the density. In theory a skip-bleach film can be re-processed to restore it to normality. However, if any of these compensations have been made, normal development is likely to create a thin grainy negative. Also remember that bleach bypass film is less stable in long term storage.

Variations:

The double inter-positive is a less common process that involves making a color and a black and white inter-positive and then exposing the negative to both. This offers greater control but is time consuming. The results are low saturation, but not as contrasty or as rich in the blacks as full skip bleach.

Da Vinci Color Correction (Hardware)

The bleach bypass look is very easy to create and control in post-production with a color corrector. The methods I describe here are based on a da Vinci 2K Plus, but similar techniques should work on other systems too.



Bleach Reduction Effect in da Vinci 2K

Da Vinci systems work in four-channel mode (RGB and Luminance). Increasing the contrast only in the luminance channel is very similar to the effect of retaining silver in the emulsion. So, increase luminance gamma and gain then lower the luminance blacks to compensate. Et voila! This does desaturate the image, but Master Chroma can still be used to tweak it either way.

Another way to achieve the same thing is to create a luminance only

high contrast custom curve in the luminance channel. The curve needs to be S shaped, and the steeper the slope the more the contrast. This approach does not reduce the color as much, so the color needs to be reduced with Master Chroma.

There is an even more effective technique using the Defocus and Power Tier options. Grade the picture normally in the SV Primaries, and then open a Channel over the whole image. Set the saturation to zero and increase the contrast. Now go to Defocus mode, enable the D2 Key bus but leave the source as none. Set the Inside path to Direct. Finally use the D2 Key bus Lift control that is in the top menu on the soft panel, to mix the normal image of the SV grade and the high contrast black and white of the Channel.

Variations:

These simple steps are really just the start of more interesting finishes. Instead of using Master Chroma to lower saturation try using very soft Chroma Light and Chroma Dark. Or, when doing the defocus blend, experiment with color washes and contrast in the intermediate channel.

Photoshop (Software)

Again, I am using Photoshop as an example because it is best known, and most software products have similar tools. The basic technique of adding contrast and removing color will of course work, but software has the great advantage of Blending modes.

Adjust the source image so that it does not have too much contrast, and then duplicate the layer. Make the new layer monochrome and high contrast. There are lots of ways to do this. The most obvious is Desaturate followed by Brightness/ Contrast. However, I prefer to use the Channel Mixer with the Monochrome box checked. Curves and Levels also make good contrast controls. Whichever method you choose, it is a good idea to make the adjustments in an adjustment layer so that the settings can be tweaked at any time. Now choose Multiply, Overlay, Hard Light or Soft Light as the layer-blending mode. I used Soft Light in my example, and then lowered the Layer Opacity to 75%. Sometimes a global adjustment layer is needed to brighten the image, or go back and tweak the stages.

Variations:

Play with the blending modes, and try different things in the monochrome layer. Using a Gaussian blur or Add Noise filter creates good results. Another approach is to use Layer Masks instead of, or as well as a Blending mode.

That's it. Probably more than you'll need to know about Bleach Bypass and all the other terms that describe this look. There are plenty of plug-ins that create the look too, but doing it yourself is so much more fun

Happy Coloring!

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Final Bleach Bypass Look



**Intermediate Layer: Blend Mode Soft Light,
Opacity 75%**



Background Layer: Source Image