

# GREEN SCREEN AND BASIC LIGHTING FOR DV PRODUCTION

by Paul Brett



I attended a seminar in the 1990's given by a young, female College lecturer. She was the new head of Drama at a local College. The talk was about James Cameron's film series based on a Cyborg, played by Arnold Schwarzenegger. I was intrigued by her perception that the film was about 'assertive women' and their rise to power in society. She based this theory on one of the main characters, Sarah Connor. The whole lecture followed the course of her perceived theme. Having seen the Terminator films I was curious to find out if indeed, Hollywood spent a relatively low budget by their terms of \$6.5 million dollars on an upgrade of 'girl power'.

Firstly, to write a script starring a Robot Assassin from the future was indeed a bold move on Cameron's part as to achieve a filmic production, special effects had to be number 1 on the agenda for costs. Add to that a good story, strong characters and the ability to project the whole affair in a moderately serious manner, sprinkled with an element of luck to catch the public's attention and you have a low budget film that took the world by storm. Of course Sarah Connor's role was strong and assertive but so was Schwarzenegger's. It was a finely tuned balance between strong actors, each doing what they do best. I could find no single substance to support the young lecturer's theory in what seemed to be more of her dream than actually reality. Academics never really leave school anyway. What was interesting, was the overall opinions from those associated with the film's production, that it was mainly an experiment in the use of Blue Screen technology. As many of us now know, this system works by the use of a Blue Screen set behind the actors, in front of which the actors perform a series of actions that are pre-set by the Director in order to coincide with a background of special effects and scenes that will be added afterwards on editing, where the Blue Screen will be dissolved and such backgrounds added to give the whole film a more spectacular effect. You don't have to go into Space to Star in a Film

about it ! Basically, the main subjects are filmed against a background consisting of either a blue or green screen, because these colours are considered to be the furthest away from skin tone. The 'screens are then 'keyed' out in the editing process and the new backgrounds are added. On most modern editing programs a Chroma key section is available. This in it's basic form is a technique for mixing two images together in which one image is removed (the screen) to reveal another behind it. You see it everyday on TV with Weather presenters. A rule of thumb here is that the subject must not wear clothing colours like or similar to the screens behind. This will result in part of the subject being 'invisible' upon editing. I saw an episode of CSI Miami on TV recently where a couple were sitting on a seat against a glass enclosure and their trousers disappeared into the glass. The continuity person missed that one ! These days, a Green Screen seems to be more popular than Blue. Green, whilst not being quite as complimentary to skin tones as blue, has a higher luminance and modern digital cameras capture more detail, plus it needs less lighting than blue. It is now, the favoured screen for special effects. The actors or whoever, have had to learn a whole different technique of acting out a shot, because they have to imagine what is going on behind them and have to be in the right place at the right time on the shoot so as not to interfere with the special effects that will be added behind them later. As in everything visual, when you are trying to reproduce ideas to film, lighting remains the most important factor to any finished product. I have recently purchased what I deem to be an excellent DVD relating to basic lighting techniques including Four Point and Green Screen lighting. It covers a whole lot of issues that you will need in order to improve your knowledge of this art. Unlike stage lighting, lighting DV subjects is a whole different world. What I like about this DVD is that it's very easy to follow and will improve any novice's lighting skills immediately.



**Fig. 1** shows the effect from using a single light behind and to the left of the subject, the light then being bounced back from a reflector back onto her face. A very simple, but atmospheric shot.



**Fig. 2** shows the subject against a blue background with shadows being projected from a light using Rosco's Black Wrap Cinefoil. This handy piece of kit is akin to the kitchen type baco foil and comes in the same type of roll packaging. You can use 'black wrap' to mould around a light to prevent spill or cut shapes in it and project atmospheric shadows behind a subject.



**Fig.3** shows how to light a subject in sunlight.



**Fig.4** is a moody night shot with the subjects in candle light and



**Fig. 5** shows the subject with a barn door effect highlighting the eyes. All these shots are simple to light and will add good visual value to your productions. A nice piece of humour is the addition of C47's. The narrator says you can add \$500 to your clients budget for the use of these. Basically, they are just plain ordinary, everyday clothes pegs, that clip gels onto lights !

Green Screen shoots are also covered in the



DVD. **Fig. 6** -illustrates the subject in the Camcorders viewfinder against a screen and the dialogue explains how to light and use the Zebra function on the Camcorder to make sure the lighting of the screen is correct.



**Fig. 7** shows the subject with a new background, after editing using the Chroma Key function. The biggest problem to overcome with lighting a Green Screen backdrop is 'even' lighting and the avoidance of any shadows appearing on the screen. Shiny surfaces will have areas that reflect the lights making them appear pale, while other areas may be darkened. A matte surface will diffuse the reflected light and have a more even colour range.

**Fig. 8** deals with the same process only using



**Fig. 8**

a white background.



**Fig. 9** shows the subject put in a new background after keying out the white one. I can't recommend this DVD highly enough to anyone who is on a tight budget and shoots their own movies. DV Enlightenment is available from DV Creators at [www.dvcreators.net](http://www.dvcreators.net) at a price of \$75 dollars, which at the current exchange rates is around £38 plus post to the UK. There's also a host of other stuff such as the Lowell lighting packages available from them as well. If you want a decent and inexpensive Green Screen, then log onto [http://www.eefx.com/eefx2/store/chroma\\_key\\_greenscreen\\_bk.html](http://www.eefx.com/eefx2/store/chroma_key_greenscreen_bk.html) again in the States, but at the current exchange rates, a very good buy.



I am going to put my new Green Screen and knowledge from the DV Enlightenment DVD to the test in the coming months and I'll let you know how I progress.

[www.paulbrettguitarist.co.uk](http://www.paulbrettguitarist.co.uk)