Quick & Easy Steps
for
Green Screen Photography

with CPQ Professional Imaging

THE BASICS OF SHOOTING ON GREEN SCREEN

The concept behind using a green screen allows the professional to add visual effects not typically possible in a live shoot. This technique allows the compositing of two images or frames together where a specific color or a small color range gets replaced by other visual elements. The process, called compositing, is widely used in animation work wherein various visual elements making up a scene get combined together into a single frame. In the case of such visual effects made for a production with live action elements shot in a green screen, it is more specifically referred to as chroma key compositing or chroma keying.

Green screens are essentially used in behind-the-scene works for Hollywood movies, especially those big-budget, special effects-heavy projects as seen in many epic, fantasy, action, and sci-fi movies. Even comedy and drama movies tend to use the chroma keying technique for their visual requirements, although generally in more subtle ways. It is also normally used in news and talk shows where certain sets and featured videos replace green or blue screens set during the actual broadcast. The weather forecast is one of the most popular examples of the basic use of chroma keying on a TV production.

Why Green?
Actually, blue is another popular color used for a chroma shoot. Green and blue are ideal colors for the technique because they are the colors least like an on-camera talent's skin tone. In outdoor filming, green is the color of choice for a chroma shoot because the blue sky on frame could get accidentally replaced during chroma keying. Generally, digital cameras also seem to retain more detail in the green channel and it demands less lighting requirements compared to blue. Both can be alternative colors for each other in cases that the subject was to wear something green or blue. Someone wearing blue should be behind a green screen, while a person wearing green should be behind a blue screen.

Conceptually speaking, any color can be used for chroma keying. However, other colors are less likely preferred because of various reasons. For instance, red couldn't be used when there is an actor being shot, as this color has that prevalence in normal human skin pigments. Yet, red can actually be fine to use in certains objects and scenes not involving people and things with any shade of red.

Lighting Requirements
The biggest challenge when shooting on chroma is lighting up the set. The basic idea is to light the green screen evenly and avoid creating shadows as it is always best to have the least color range as possible when replacing the green screen with the intended visuals for it. The more identical the color, shade, and tone of the screen is, the less risk of visual replacement issues to contend with. For instance, if a shadow or shine is present on the green screen during the time of filming, the said part may not register well for replacement. Some may actually get replaced, but the imperfection would readily be noticeable and quite tedious to fix. For this reason we are going to show you a quick and easy lighting set-up, that done correctly, produces constant results.

Background Recommendations

- Savage Paper Background (B&H #46 Sage/Techgreen)
- Green Fabric (taunt, no wrinkles)
- Flex Background-Doublesided, no wrinkles (Denny's)

2 Umbrella Setup

This setup is also valid for Softboxes

5 *Feet*

6 *Feet*
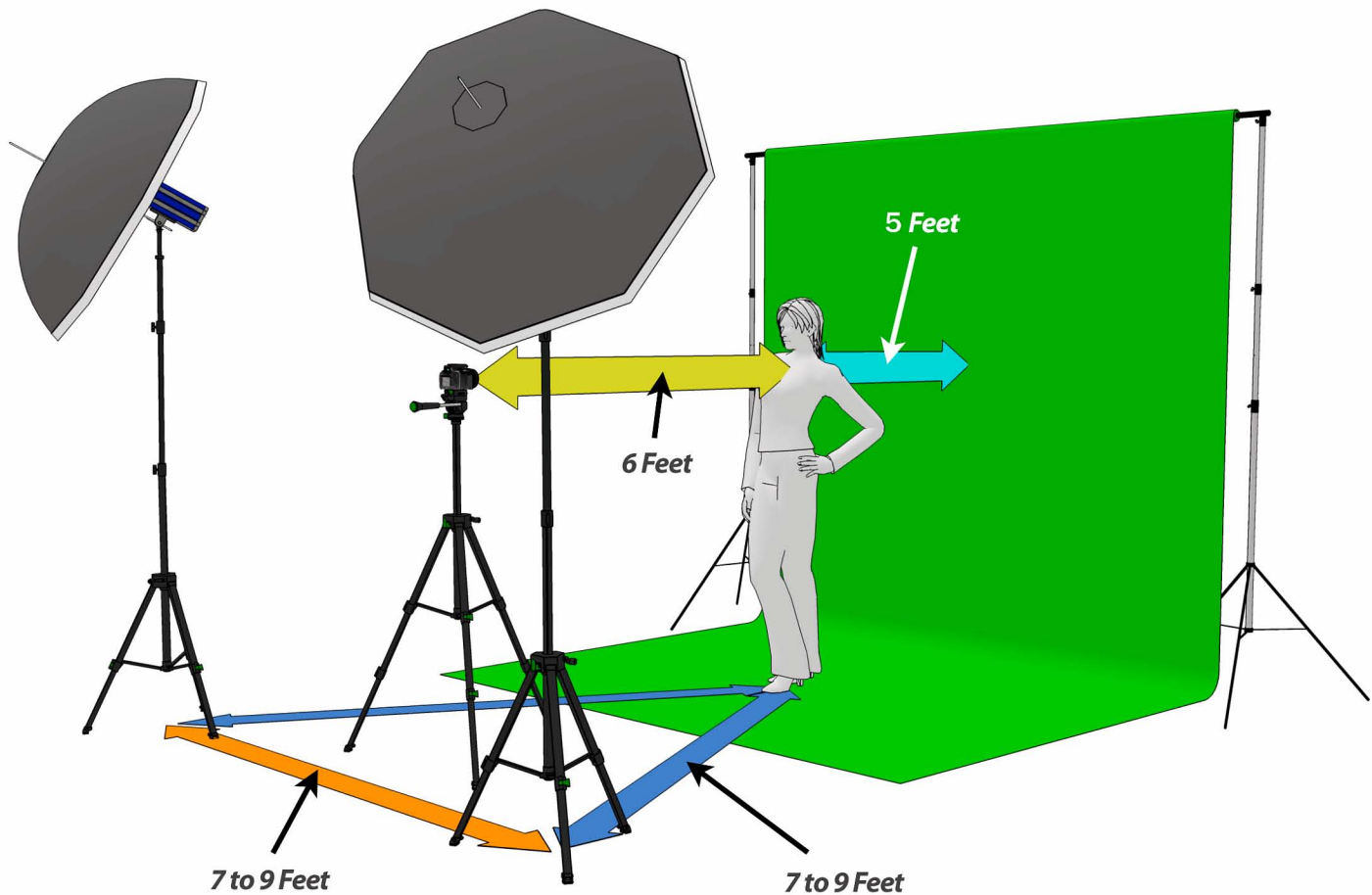
7 to 9 Feet

7 to 9 Feet

Distance from Camera to your Subject:	**6 Feet**	
Distance from Subject to the Backdrop:	**5 Feet**	
Distance between the Umbrellas:	**7 to 9 Feet**	
Distance from your Subject to either Umbrella:	**7 to 9 Feet**	

Quick and easy camera settings

Camera Settings...

- **White Balance:** Flash or Custom White Balance (Do not Auto White Balance)
- **ISO:** Always use 100 (or lower if your camera goes lower)- High ISO values have more noise. Higher noise can cause a speckled transparency mask on the extraction. This is because some of the pixels from the green screen are less green (or not green at all) with higher noise levels.
- **Aperture:** Use a wide aperture (lower number) - Similar to ISO, using a narrow aperture leads to higher digital noise levels. Also, a wider aperture will reduce the depth of field and cause the green screen to be slightly out of focus, This also helps for a more uniform green color to remove. We usually try to shoot with the F8 or less. 6.3 is the default value that we use for most of our studio shooting.
- **Shutter Speed:** This doesn't matter too much with flash photography as long as the shutter is open long enought to compensate for any delay between the shutter and the remote flash. The exposure will be set with the flash intensity and not the shutter speed. 1/100-1/125 sec
- No extra sharpening, vivid color, or contrast

QUICK AND EASY IMAGES – IF PROPERLY EXPOSED

EXPOSED PER DIAGRAM – ISO 100, F8, 1/125 SEC, 5 FEET OFF THE BACKGROUND (2 LIGHTS)

GREEN SCREEN IMAGE

The Rules of Green Screen

Subject should be 5 feet off the background

Space your subject away from the green screen by 5 feet or more if possible…

The closer the subject is to the green screen, the more green spill that will be encountered. This is because the screen reflects green light back onto the person. Obviously, if you are doing an upper body shot, you will be able to space the person further away then if you are doing a full body shot. If you need for the person to stand or sit on the screen then try to use a screen that is long enough to cover sufficient floor area, so that you can get decent spacing between the persons upper body and the back of the screen. However, it is best to try to minimize the spill during the photo shoot.

TOO CLOSE TO BG- TOP TWO IMAGES ARE WHAT YOU DO NOT WANT
THE TWO IMAGES AT THE BOTTOM SHOW A GOOD EXPOSURE.

GREEN SCREEN IMAGE
BG TOO CLOSE

HARSH SHADOWS & GREEN IN
HAIR –

The Rules of Green Screen

Choose a background without wrinkles

Minimize wrinkles in the screen whenever possible...

To be honest, this is where we get lazy in our photo shoots. Since we do traveling photo shoots, using a large paper roll background is not the best idea. Ironing out wrinkles is not always an option either. If your screen has some wrinkles then make sure to stretch the screen fairly well on the backdrop stand using some clamps so there are not any large folds. Also, make sure that light hits the screen from 2 angles. You should still be able to get a good extraction this way even with some wrinkles in the muslin.

GREEN SCREEN IMAGE

HARSH SHADOWS & GREEN IN HAIR –

5A

The Rules of Green Screen

Be sure to light the background evenly

Light the green screen as evenly as possible...

It is not always easy to have a perfectly lit green screen. However, you should try to avoid dark shadows whenever posssible. Sometimes shadowing can't be avoided. For example, when doing a full body shot with the subject standing on the green screen, there will be no way to avoid shadows. For this case, all areas of the screen should receive light by at aleast one flash source. A simple way to accomplish this is by using two flash strobes at an angle to the person (one to the right and one to the left). The area that is shadowed by one light is illuminated by the other. Since some screen areas are lit by two lights and other areas are lit by one light, there will still be some shadowing. However, this should be good enough to get a good extraction.

BE SURE TO LIGHT THE BACKGROUND EVENLY ~ AVOID SHADOWS

BE SURE TO ANGLE YOUR LIGHTS PROPERLY – SEE DIAGRAM

GREEN SCREEN IMAGE

HARSH SHADOWS & GREEN IN HAIR –

HARSH SHADOWS

GOOD IMAGE

7A

Do not drape background under the subject

Do not drape green fabric or paper under your subject. As you will see in the images on the next page the green will spill onto the the clothing and skin because the material is too close to the subject. This may also cause shadows.

Position your subject.
• Make sure that the subject's position is appropriate for the background in the final composite image.   When starting out in green screen photography it is best to stick to head & shoulders or 3/4 length photography. With full length you have to really watch to make sure the perspective of the subject matches the background and surroundings. Note the image of the child on the beach or the garden shot where the child is as large as the tree.

DO NOT DRAPE BACKGROUND ~ THE GREEN WILL SPILL ONTO THE
CHILD AND CLOTHING. LOOK AT THE BACK OF HER SKIRT.
ALSO KEEP IN MIND SIZE AND PROPORTION ~ BEACH AND GARDEN IMAGE
LOOK SILLY ~ THE CHILD LOOKS VERY LARGE TO THE SURROUNDS.

8A

The Rules of Green Screen

Do not photograph off the background

Keep your subject on the background ~ be sure to measure your set-up out (it will save you time and money in the long run). The lab can correct a shot off the background but the $$ cost will eat up profits from your shoot. Keep in mind to line up your subject on the background and frame it out in your camera so you will have a clean image knock out.

COULD BE COSTLY TO

REPAIR A BACKGROUND BE

SURE TO HAVE YOUR

SUBJECT CENTERED ON

THE BACKGROUND.

9A

The Rules of Green Screen

No shadows on background - no background lights

• Clearly lighting your background is very important in green screen photography. It may take time to perfect but the ideal lighting situation would provide an even lighting on the background with minimum reflection or spill over onto your subject.

Review example images

WATCH FOR SHADOWS AND DON'T USE BACKGROUND LIGHTS

Other things to remember:

- **Make sure images size is appropriate to the background image used.**
  (example: child on beach)

    If you are wanting to shoot green screen with CPQ - please submit a test ASAP.
    Your Customer Service/Sales Representative will follow up with you. We will accept
    or critique you test.
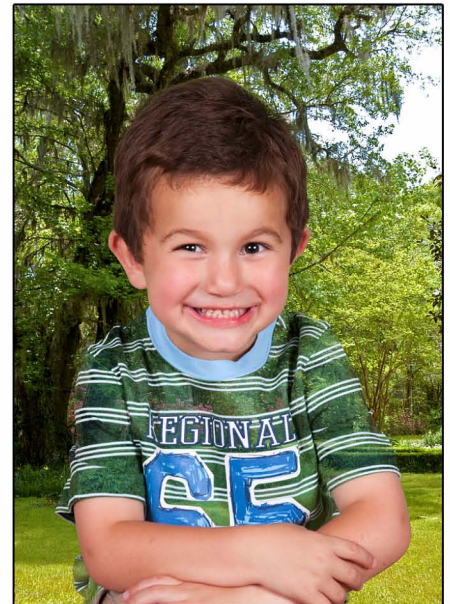
    *Marketing- Show Proof

OH NO GREEN CLOTHING – SIMPLE FIX, USE A FLEX BLUE BACKGROUND
IT IS THE FLIP SIDE ON THE GREEN FLEX BACKGROUND. HAVING AN
OPTION WILL SAVE YOU TIME AND MONEY. GREEN CLOTHING WILL
PULL THE BACKGROUND IN...SEE EXAMPLES

GREEN ON GREEN
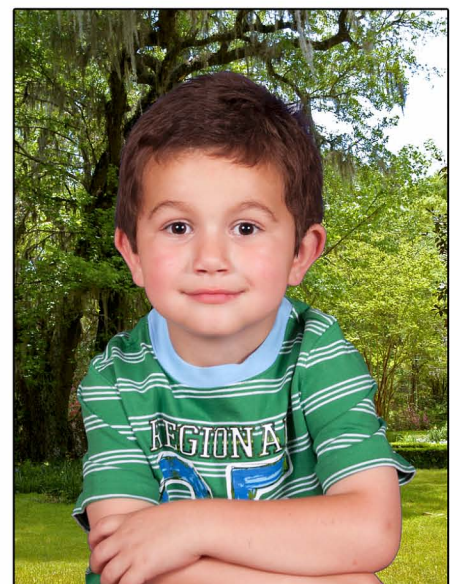

LOOK AT THE SHIRT
WHITE BG BLEEDS THRU

LOOK AT THE SHIRT
GARDEN BG SHOWS THRU

GREEN SHIRT ON FLEX

IMAGES GOOD

BLUE BG WORKS   11A
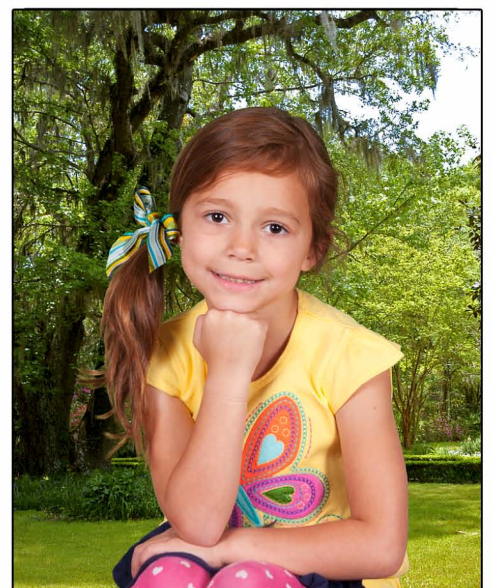
Posing ideas for green screen

Posing and props are one of the toughest decisions in green screen. Remember the following when dealing with posing and props...

- Must fit across all background choices
- Must be good for all ages
- Must be good for boys and girls

SIMPLE POSING IDEAS

SIMPLE POSING IDEAS

NOTES

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