



CHROMA KEY

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- **Chroma key compositing** (or **chroma keying**) is a technique for compositing two images or frames together in which one image is removed (or made transparent), revealing another image behind it. This technique is also referred to as **color keying**, **colour-separation overlay (CSO)**, **greenscreen**, and **bluescreen**.
- A *chroma key* is a technique used in film, video and still photography to replace a portion of an image with a new image. This is most commonly used to replaced a coloured background with a different setting.





- It is commonly used for weather forecast broadcasts, wherein the presenter appears to be standing in front of a large map, but in the studio it is actually a large blue or green background.
- Is it green or blue better? The real issue is what color you need to have in the foreground. If the subject needs to wear blue shirt, use green. If green needs to appear in the foreground, use blue. When all else fails, use any other color that isn't needed in the foreground. Blue and green are the favorites because they do not appear in human skin tones, a color you can't change very easily. However, virtually any color can be used, including red and yellow.





- Blue is generally used for both weather maps and special effects because it is complementary to human skin tone. The use of blue is also tied to the fact that the blue emulsion layer of film has the finest crystals and thus good detail and minimal grain (in comparison to the red and green layers of the emulsion.)
- In the digital world, however green has become the favored color because digital cameras retain more detail in the green channel and it requires less light than blue. Green not only has a higher luminance value than blue but also in early digital formats the green channel was sampled twice as often as the blue, making it easier to work with. The choice of color is up to the effects artists and the needs of the specific shot



- In the past decade, the use of green has become dominant in film special effects. Also, the green background is favored over blue for outdoors filming where the blue sky might appear in the frame and could accidentally be replaced in the process. Although green and blue are the most common, any color can be used. Red is usually avoided due to its prevalence in normal human skin pigments, but can be often used for objects and scenes which do not involve people.



- The biggest challenge when setting up a bluescreen or greenscreen is even lighting and the avoidance of shadow, because it is best to have as narrow a color range as possible being replaced. A shadow would present itself as a darker color to the camera and might not register for replacement. This can sometimes be seen in low-budget or live broadcasts where the errors cannot be manually repaired.
- Another common, related, problem is lighting the subjects in a manner that is complementary to the scene being keyed in behind. Attention has to be paid to matching the direction of lighting and the colour balance in the background. Any spill of the chromakey colour will make the result look unnatural.







THANK YOU

