

# Colour Modes – CMYK versus RGB

**Tip** Always work in CMYK when creating a map because the map will be printed at some point in the future

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## What is CMYK?

CMYK stands for:

Cyan  
Magenta  
Yellow  
Black

Theoretically, the entire range of colors can be made by combining varying amounts of CMY, but in reality black must be added to reach the darkest colors. A lack of all four colors produces white.

> CMYK should be used for almost all printings.

## What is RGB?

RGB stands for:

Red  
Green  
Blue

The three component colors combined in full intensity produce white while the lack of all three colors produces black.

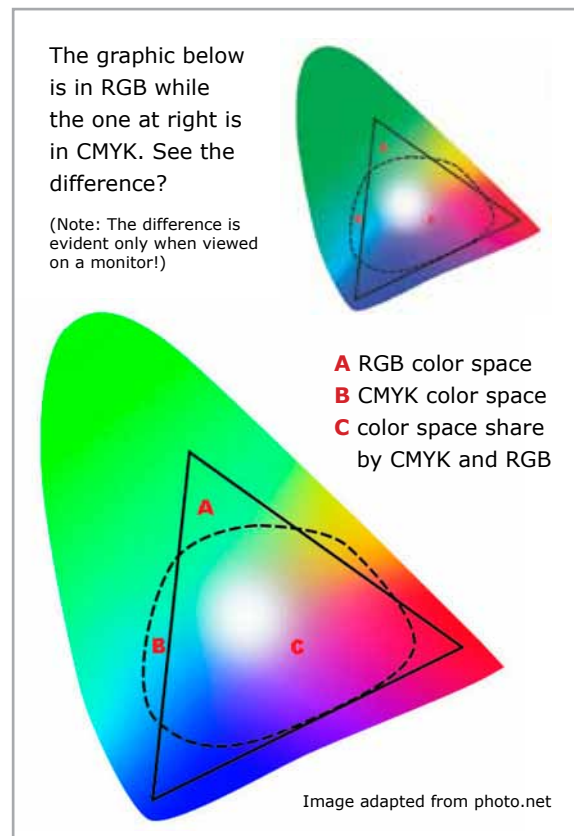
> RGB is intended for use on monitors, i.e. for web content, presentations, and video.

## Why use CMYK?

All colour printers use CMYK.

Your printed product may not resemble what you see on your screen if you use a color from the areas where the RGB and CMYK color modes do not overlap.

RGB colors that are bright and vibrant cannot be reproduced in printing.



## Tip Working with images

**1** When preparing your images for print, do as much of your editing in RGB as possible. This allows you to maintain your image's overall color balance. If your image uses many bright colors, try reducing the saturation levels to pull the colors into CMYK range.

**2** Convert to CMYK as the last step.

## Trick How to export your map in CMYK from ArcGIS



- 1.** When you are ready to export, select "File"
- 2.** Select "Export Map..."
- 3.** Toggle open the "Options" menu
- 4.** Click on the "Format" tab
- 5.** For Destination Colorspace, select "CMYK"
- 6.** Continue saving as usual

### References:

Peter Bauer and Jeff Foster, *Special Edition - Using Adobe Photoshop 7* (Indianapolis, IN: Que Corporation, 2003), 176-179

Mark Gatter, *Getting it right in print: Digital pre-press for graphic designers* (London: Laurence King Publishing Ltd, 2004), 136-137