
Subject: Re: How to do RGB to CMYK conversion for PS output?
Posted by [George N. White III](#) on Sat, 15 Jul 2006 19:31:04 GMT
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On Thu, 13 Jul 2006, David Fanning wrote:

> Paul Van Delst writes:

>

>> A colleague produced a colour X-Y plot for a paper and saved it to a
>> regular old PS file. The editor mailed back stating that the file
>> contains RGB colours and could we please create the file in CMYK
>> colours.

>> [...]

>> Any ideas?

>

> Photoshop?

Yes. There is generally a significant difference between the CMYK you get using Photoshop and from IDL. I think IDL uses the simple formula:

```
C=255-R ...  
K=min([C,M,Y])  
C=C-K ...
```

This seems reasonable in theory, but in practice CMYK devices have a restricted gamut compared to typical (CRT and LCD) displays. Different printers handle out-of-gamut values differently, but most will give muddy looking colors with CMYK images created by IDL using a color palette that looks good on a display. Photoshop generally does a much better job (and will show you which colors are outside the CMYK gamut). For best results you need color profiles for both the display and for the output device.

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