

Colour management by a change of the *rgb* data within the colour workflow before the linearized output

See ISO-Ergonomics of human-systems interaction – Field assessment methods for electronic visual displays

For ISO-test charts according to ISO 9241-306:2018 see: <http://standards.iso.org/iso/9241/306/ed-2/index.html>

ISO-test charts according to ISO 9241-306 which include 1MR

$rgb \Downarrow$

Software RIP calculates transfer
 $rgb \rightarrow rgb'_{U}$

rgb start

rgb'_{U} linearized

Appropriate fixed user transfer *U*:¹⁾

$rgb - U \rightarrow cmyk_U$ with 100% UCR

$rgb'_{U} - U \rightarrow cmyk'_{U}$ with 100% UCR

for example, if:

$r=g=b$, then $k=1-r$, and $c=m=y=0$

$c=m=y$ and $k=0$, then $k=c$ and $c=m=y=0$

$cmyk_U$

$cmyk'_{U}$

Output ($cmyk_U$):

offset print
all PS printers
proof printers
digital print ?

729 measurement data in CIELAB colour space

ISO-test charts according to ISO 9241-306 which include 1MR

$rgb \Downarrow$

Software RIP calculates transfer
 $rgb \rightarrow rgb'_{U}$

rgb start

rgb'_{U} linearized

Fixed manufacturer transfer *M*:

$rgb - M \rightarrow cmyk_M$ with ? % UCR

$rgb'_{U} - M \rightarrow cmyk'_{M}$ with ? % UCR

The UCR percentage is unknown.

For 100% UCR the output is ergonomic, otherwise the printing costs increase.

$cmyk_M$

$cmyk'_{M}$

Output ($cmyk_M$):

all RGB printers
digital print ?

729 measurement data in CIELAB colour space

¹⁾ For an example see the printed english version of <http://standards.iso.org/iso/9241/306/ed-2/ES15.PDF>

This offset print includes the start and linearized output of many analog ISO-test charts of ISO 9241-306.

For linearization methods see *Klaus Richter* (2016), 1,4 MB, http://farbe.li.tu-berlin.de/OUTLIN16_01.PDF