

Colour data in file, user choice and output needs:

Test: Equally spaced device or elementary hue output?

User choice no. 1  
of colour data for output:

Output interpretation  
as *device* data  
and output transformation  
*rgb* to *rgb'*<sub>1</sub> for device 1

Device 1 uses the data  
*rgb'*<sub>1</sub> for output.

1 Is the device output  
equally spaced  
for any of the six  
device hues *OYLCVM*?

Colour data file with  
input data *rgb* as  
undefined colour data  
*rgb* (-> *rgb*)  
*no special*  
*device colours*

User choice no. 2  
of colour data for output:

Output interpretation  
as *device* data  
and output transformation  
*rgb* to *rgb'*<sub>2</sub> for device 2

Device 2 uses the data  
*rgb'*<sub>2</sub> for output.

2 Is the device output  
equally spaced  
for any of the six  
device hues *OYLCVM*?

User choice no. 3  
of colour data for output:

Output interpretation  
as *elementary* data  
and output transformation  
*rgb* to *rgb''*<sub>1</sub> for device 1

Device 1 uses the data  
*rgb''*<sub>1</sub> for output.

3 Is the device output  
equally spaced  
for any of the four  
elementary hues *RJGB*?

Remark:  
For output linearisation  
see ISO/IEC TR 19797

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Colour data in file,  
user chroma change  
user interpretation  
and output needs:

Test: More or less chromatic device  
and elementary hue output?

User: Change of chroma  
and interpretation

1. More chromatic by  
 $c^* = c^{*1/2}$  (new *rgb*),  
output interpretation  
as *device* data  
3. Less chromatic by  
 $c^* = c^{*2}$  (new *rgb*),  
output interpretation  
as *device* data

2. More chromatic by  
 $c^* = c^{*1/2}$  (new *rgb*),  
output interpretation  
as *elementary* data

Device uses lookup table  
*olv\** - *rgb'* for output.

1 Is the device output  
*more* chromatic  
for any of the six  
device hues *OYLCVM*?

Device uses lookup table  
*olv\** - *rgb'* for output.

2 Is the device output  
*less* chromatic  
for any of the six  
device hues *OYLCVM*?

Device uses lookup table  
*rgb\** - *rgb''* for output.

3 Is the device output  
*more* chromatic  
for any of the four  
elementary hues *RJGB*?

Remark:  
For output linearisation  
see ISO/IEC TR 19797

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BAM-test chart ZE39; Office colour workflow  
User input, output choice and output needs

User specification of the output with *rgb* data interpretation as *olv\**  
Equally spaced output, equal output, chroma change, smoothing

Is the output visually equally spaced for equally spaced colour data as input?

device hue colour output *olv\** for six device hue planes *OYLCVM*

Colour Code: *rgb* *cmY0* *000k* *w* *LAB\** *LCH\** *nch\** *nce\**

5 steps: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

16 steps: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Is the output visually equal for equivalent colour data as input?

device hue colour output *olv\** for six device hue planes *OYLCVM*

Colour Code: *rgb*, *cmY0* *rgb...w* *rgb...LCH\** *rgb...nce\**

5 steps: ☐ ☐ ☐ ☐

16 steps: ☐ ☐ ☐ ☐

Exists an option for a change of chroma for equally spaced input data?

device hue colour output *olv\** for six device hue planes *OYLCVM*

Change option: *no option* *less chromatic* *more chromatic* *achromatic*

5 steps: ☐ ☐ ☐ ☐

16 steps: ☐ ☐ ☐ ☐

Exists an option for colour smoothing for equally spaced input data?

device hue colour output *olv\** for six device hue planes *OYLCVM*

Smoothing option: *no option* *No smoothing* *smoothing* *visual evaluation*

5 steps: ☐ ☐ ☐ ☐ Smoothing Yes/No

16 steps: ☐ ☐ ☐ ☐ Smoothing Yes/No

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User specification of the output with *rgb* data interpretation as *rgb\**  
Equally spaced output, equal output, chroma change, smoothing

Is the output visually equally spaced for equally spaced colour data as input?

elementary hue colour output *rgb\** for four elementary hue planes *RJGB*

Colour Code: *rgb* *cmY0* *000k* *w* *LAB\** *LCH\** *nch\** *nce\**

5 steps: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

16 steps: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Is the output visually equal for equivalent colour data as input?

elementary hue colour output *rgb\** for four elementary hue planes *RJGB*

Colour Code: *rgb*, *cmY0* *rgb...w* *rgb...LCH\** *rgb...nce\**

5 steps: ☐ ☐ ☐ ☐

16 steps: ☐ ☐ ☐ ☐

Exists an option for a change of chroma for equally spaced input data?

elementary hue colour output *rgb\** for four elementary hue planes *RJGB*

Change option: *no option* *less chromatic* *more chromatic* *achromatic*

5 steps: ☐ ☐ ☐ ☐

16 steps: ☐ ☐ ☐ ☐

Exists an option for colour smoothing for equally spaced input data?

elementary hue colour output *rgb\** for four elementary hue planes *RJGB*

Smoothing option: *no option* *No smoothing* *smoothing* *visual evaluation*

5 steps: ☐ ☐ ☐ ☐ Smoothing Yes/No

16 steps: ☐ ☐ ☐ ☐ Smoothing Yes/No

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input: *rgb* (-> *olv\*/rgb\**) *setrgbcolor*  
output: no change compared to input