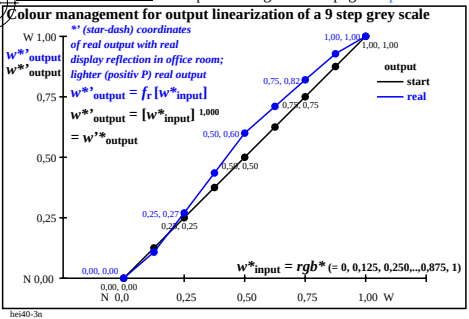
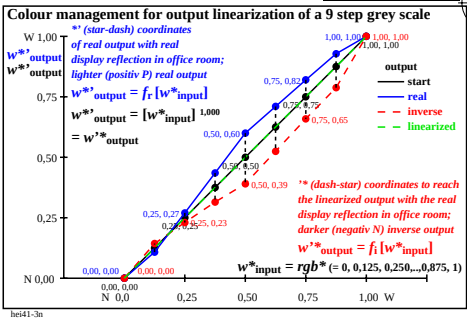
Colour management for output linearization of a 9 step grey scale



Colour management for output linearization of a 9 step grey scale



Three, 5 and 9 colour steps for visual evaluation

s: 0, 125, 250, 375, 500, 625, 750, 875, 1000 $L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

Black N00b − Black N16b = Blue B

N00b	N08b	N16b	N00b	N04b	N08b	N12b	N16b	N00b	N02b	N04b	N06b	N08b	N10b	N12b	N14b	N16b
									12?	25?	37?	50?	62?	75?	87?	100

Three, 5 and 9 colour steps, numeric specification

0,00	e08=0, . .	1,00	0,00	e04=0, . .	1,00	e48=0, . .	1,00	0,00	e02=0, . .	1,00	c24=0, . .	0,00	e46=0, . .	1,00	e68=0, . .	1,00
0,00	a1=e08	1,00	0,00	b1=e04*a1	0,00 b2=a1	b3=e48* (1−b2)+b2	1,00	0,00	c1=e02*b1	c2=b1	c3=e24* (b2−b1)+b1	1,00	c5=e46* (b3−b2)+b2	0,00	c6=b3	c7=e68* (1−b3)+b3	1,00

Three, 5 and 9 colour steps, numeric calculation example

0,00	0,60	1,00	0,00	0,45	1,00	0,00	0,55	1,00	0,00	0,40	1,00	0,00	0,49	1,00	0,00	0,60	1,00
0,000	0,600	1,000	0,000	0,270	0,600	0,000	0,820	1,000	0,000	0,108	0,270	0,000	0,435	0,600	0,000	0,928	1,000
0,000	0,390	1,000	0,000	0,230	0,390	0,000	0,658	1,000	0,000	0,143	0,230	0,000	0,314	0,390	0,000	0,787	1,000

Three, 5 and 9 colour steps, produced visual linearization

r: 0, 108, 270, 435, 600, 710, 820, 928, 1000 i: 0, 143, 230, 314, 390, 524, 658, 787, 1000 $L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

Black N00b − Black N16b = Blue B

N00b	N08b	N16b	N00b	N04b	N08b	N12b	N16b	N00b	N02b	N04b	N06b	N08b	N10b	N12b	N14b	N16b