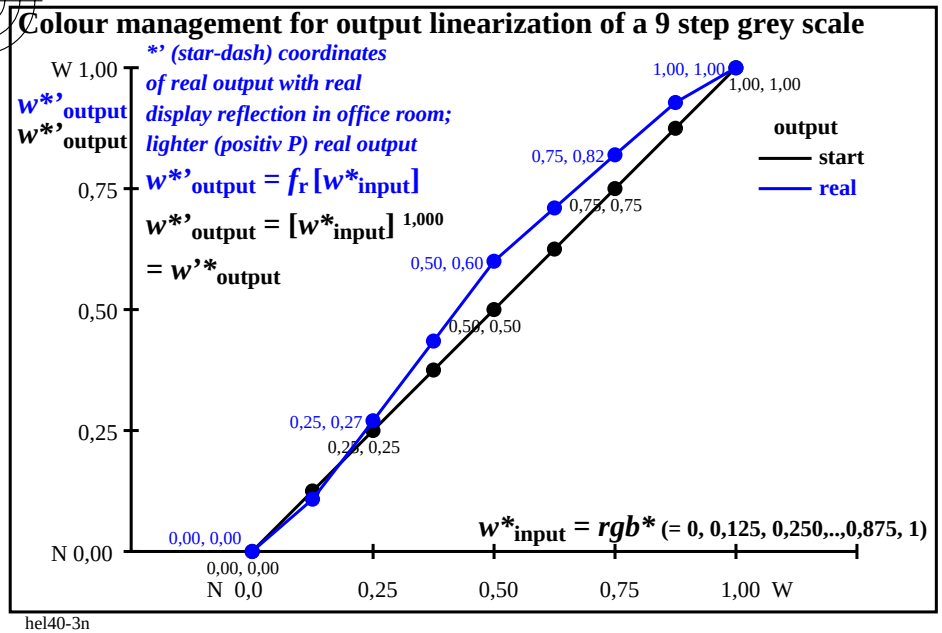
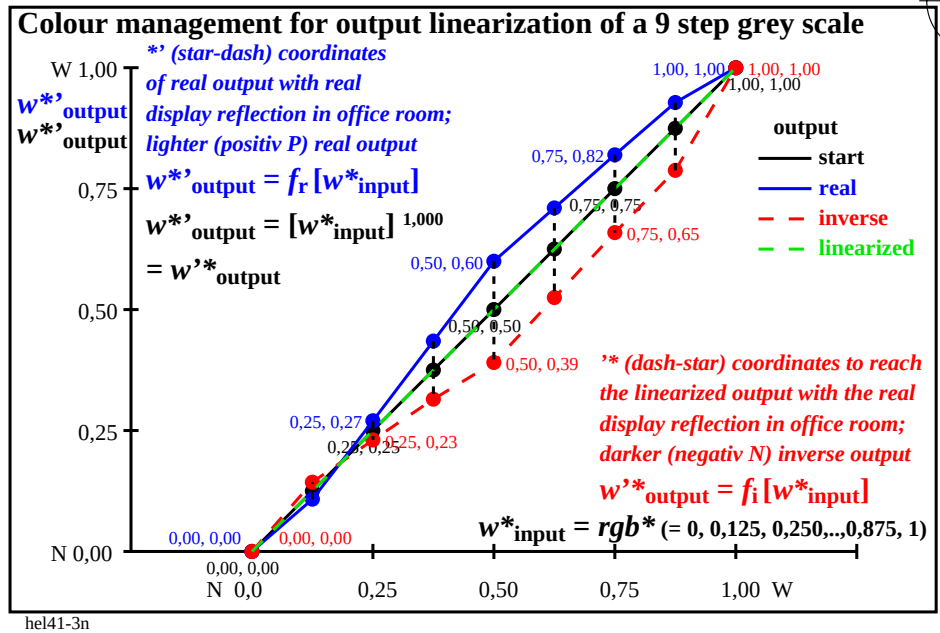
Colour management for output linearization of a 9 step grey scale



hel40-3n

Colour management for output linearization of a 9 step grey scale



hel41-3n

Three, 5 and 9 colour steps for visual evaluation

s: 0, 125, 250, 375, 500, 625, 750, 875, 1000
Blue B00w − Blue B16w = White W

$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50,\ Y_N=4,\ Y_U=20,\ Y_W=100$

B00w	B08w	B16w	B00w	B04w	B08w	B12w	B16w	B00w	B02w	B04w	B06w	B08w	B10w	B12w	B14w	B16w

Three, 5 and 9 colour steps, numeric specification

0								0								
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	0,00 c2=b1	c3=e24* (b2−b1)+b1	1,00 c4=b2	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	0,55	1,00	0,00	0,40	1,00	0,49	0,00	0,50	1,00	0,60	1,00
0,000	0,600	1,000	0,000	0,270	0,600	0,820	1,000	0,000	0,108	0,270	0,435	0,600	0,710	0,820	0,928	1,000
0,000	0,390	1,000	0,000	0,230	0,390	0,658	1,000	0,000	0,143	0,230	0,314	0,390	0,524	0,658	0,787	1,000

r: 0, 108, 270, 435, 600, 710, 820, 928, 1000
i: 0, 143, 230, 314, 390, 524, 658, 787, 1000

Three, 5 and 9 colour steps, produced visual linearization

Blue B00w − Blue B16w = White W

$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50,\ Y_N=4,\ Y_U=20,\ Y_W=100$

B00w	B08w	B16w	B00w	B04w	B08w	B12w	B16w	B00w	B02w	B04w	B06w	B08w	B10w	B12w	B14w	B16w

hel40-7n, Test samples: 3, 5 and 9 colour steps, greu=0,500, expu=1,000, expa=1,000, expi=1,000