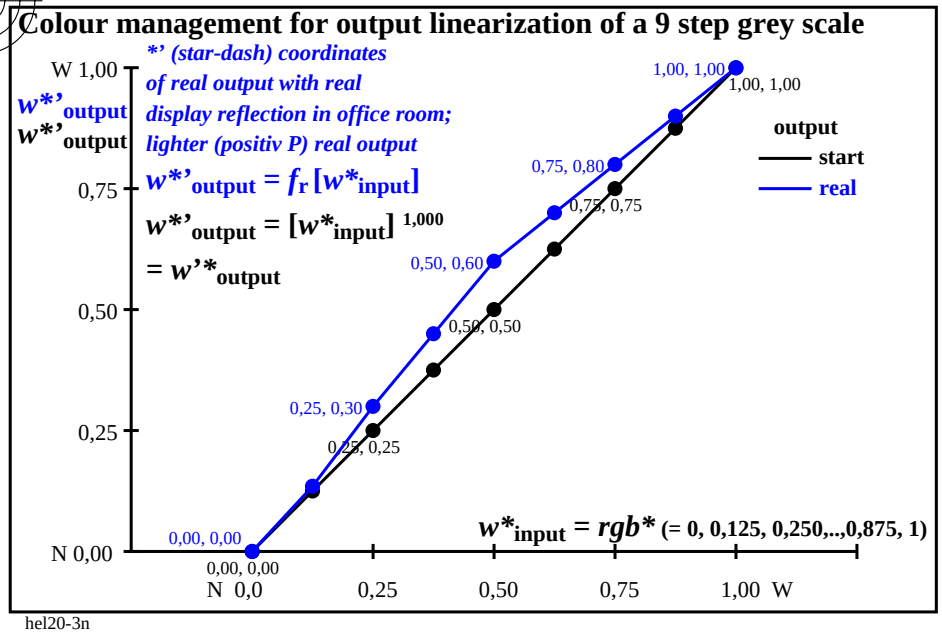
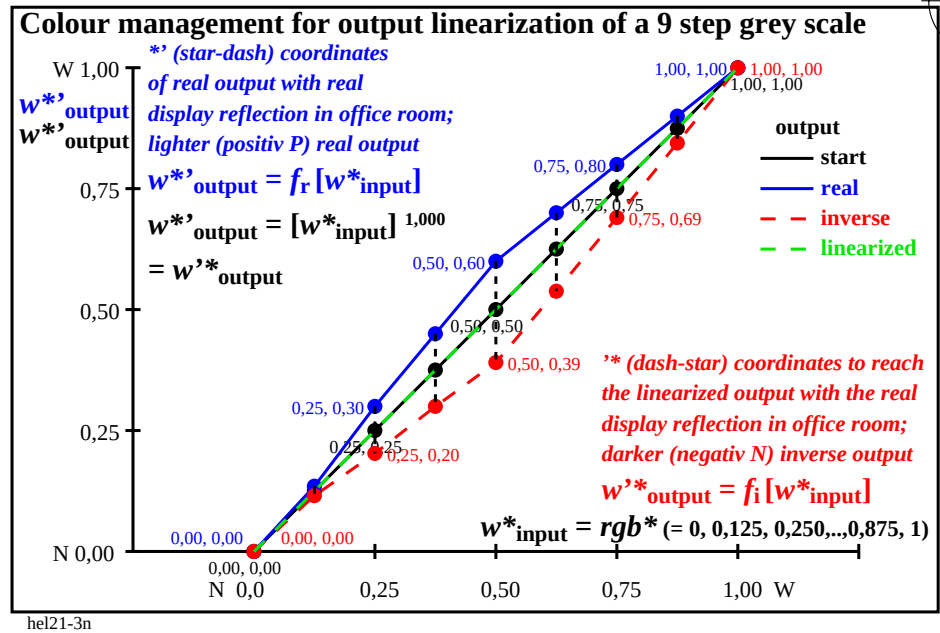
Colour management for output linearization of a 9 step grey scale



hel20-3n

Colour management for output linearization of a 9 step grey scale



hel21-3n

s: 0, 125, 250, 375, 500, 625, 750, 875, 1000
Blue B00w − Blue B16w = White W
$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

Three, 5 and 9 colour steps for visual evaluation

0,000	0,500	1,000	0,000	0,250	0,500	0,750	1,000	0,000	0,125	0,250	0,375	0,500	0,625	0,750	0,875	1,000
B00w	B08w	B16w	B00w	B04w	B08w	B12w	B16w	B00w	B02w	B04w	B06w	B08w	B10w	B12w	B14w	B16w
								0	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 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	0,50	1,00	0,50	1,00	0,00	0,45	1,00	0,50	0,00	0,50	1,00	0,49	1,00
0,000	0,600	1,000	0,000	0,300	0,600	0,800	1,000	0,000	0,135	0,300	0,450	0,600	0,700	0,800	0,900	1,000
0,000	0,390	1,000	0,000	0,202	0,390	0,690	1,000	0,000	0,115	0,202	0,299	0,390	0,538	0,690	0,844	1,000

r: 0, 135, 300, 450, 600, 700, 800, 900, 1000
i: 0, 115, 202, 299, 390, 538, 690, 844, 1000
Blue B00w − Blue B16w = White W
$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

Three, 5 and 9 colour steps, produced visual linearization

s	0,000	0,500	1,000	0,000	0,250	0,500	0,750	1,000	0,000	0,125	0,250	0,375	0,500	0,625	0,750	0,875	1,000
r	0,000	0,600	1,000	0,000	0,300	0,600	0,800	1,000	0,000	0,135	0,300	0,450	0,600	0,700	0,800	0,900	1,000
i	0,000	0,390	1,000	0,000	0,202	0,390	0,690	1,000	0,000	0,115	0,202	0,299	0,390	0,538	0,690	0,844	1,000
f	0,000	0,500	1,000	0,000	0,250	0,500	0,750	1,000	0,000	0,125	0,250	0,375	0,500	0,625	0,750	0,875	1,000
	B00w	B08w	B16w	B00w	B04w	B08w	B12w	B16w	B00w	B02w	B04w	B06w	B08w	B10w	B12w	B14w	B16w

hel20-7n, Test samples: 3, 5 and 9 colour steps, greu=0,500, expu=1,000, expa=1,000, expi=1,000