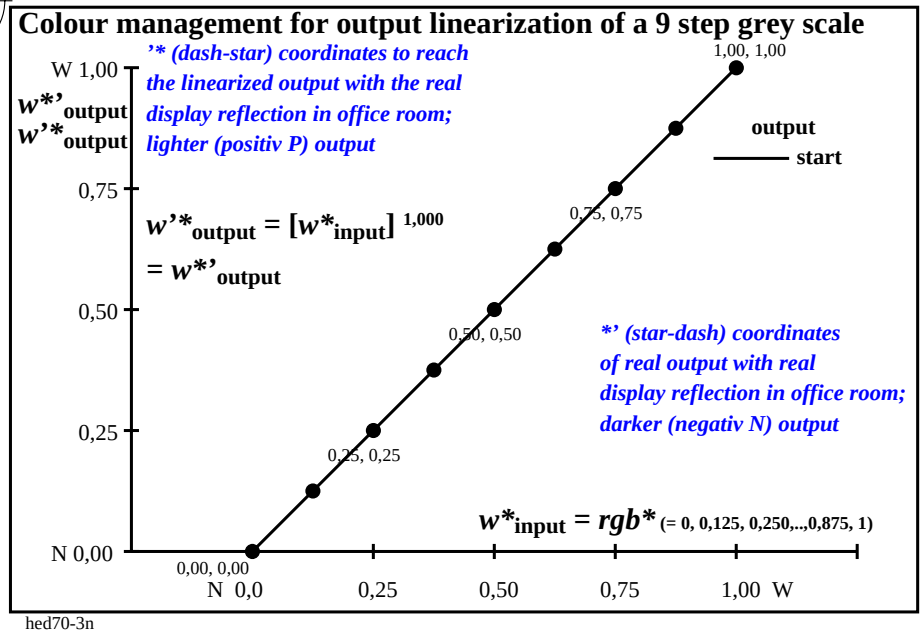
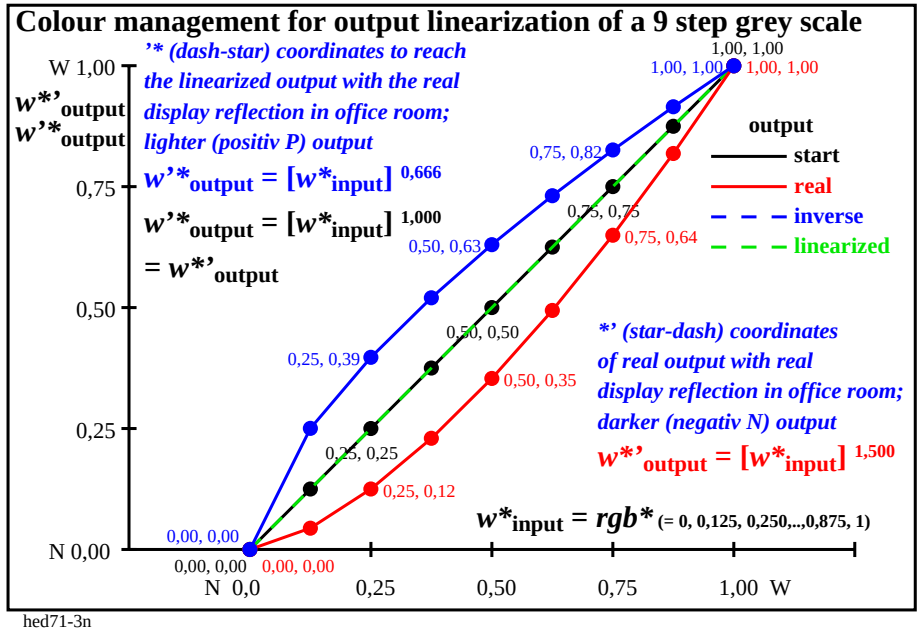
Colour management for output linearization of a 9 step grey scale



hed70-3n

Colour management for output linearization of a 9 step grey scale

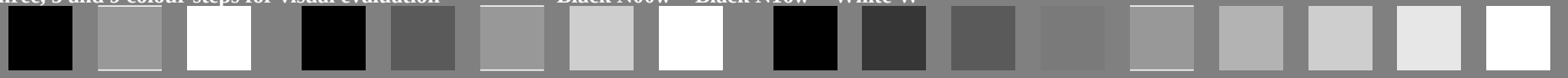


hed71-3n

Three, 5 and 9 colour steps for visual evaluation

0, 125, 250, 375, 500, 625, 750, 875, 1000
Black N00w − Black N16w = White W

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



N00w N08w N16w | N00w N04w N08w N12w N16w | N00w N02w N04w N06w N08w N10w N12w N14w N16w

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	1,00	0,00	c1=e02*b1	0,00	c2=b1	1,00	c3=e24* (b2−b1)+b1	0,00	c5=e46* (b3−b2)+b2	0,00	c6=b3	1,00	c7=e68* (1−b3)+b3	1,00
						b3=e48* (1−b2)+b2										
N00w	N08w	N16w	N00w	N04w	N08w	N12w	N16w	N00w	N02w	N04w	N06w	N08w	N10w	N12w	N14w	N16w
0									12?	25?	37?	50?	62?	75?	87?	100

Three, 5 and 9 colour steps, numeric calculation example

0,00	0,59	1,00	0,00	0,59	1,00	0,52	1,00	0,00	0,59	1,00	0,52	0,00	0,51	1,00	0,50	1,00
0,000	0,594	1,000	0,000	0,353	0,594	0,805	1,000	0,000	0,210	0,353	0,479	0,594	0,702	0,805	0,904	1,000

Three, 5 and 9 colour steps, produced visual linearization

0, 350, 499, 612, 707, 790, 865, 935, 1000
Black N00w − Black N16w = White W

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

N00w N08w N16w | N00w N04w N08w N12w N16w | N00w N02w N04w N06w N08w N10w N12w N14w N16w

hed70-7n, Test samples: 3, 5 and 9 colour steps, greu=0,500, expu=1,000, expa=0,750, expi=1,330

TUB-test chart hed7; Separate grey samples for visual intervall scaling, evaluation of the series N−W with 3, 5 and 9 steps, output $(rgb^*)^{0,75}$ & experimental; surround mean Grey U=N08w