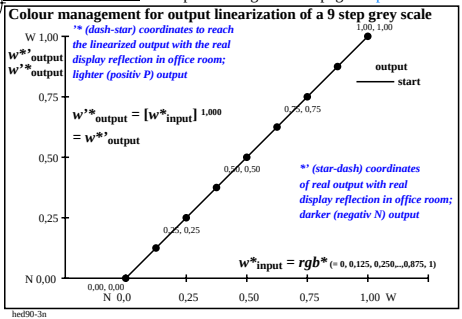
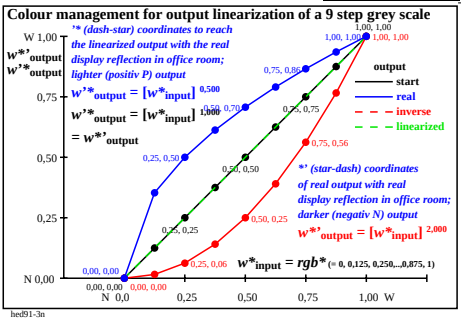
Colour management for output linearization of a 9 step grey scale



hed90-3n

Colour management for output linearization of a 9 step grey scale



hed91-3n

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
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	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	0,70	1,00	0,00	0,70	1,00	0,54	1,00	0,00	0,70	1,00	0,54	0,00	0,52	1,00	0,51	1,00
0,000	0,707	1,000	0,000	0,500	0,707	0,866	1,000	0,000	0,353	0,500	0,612	0,707	0,790	0,866	0,935	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

hed90-7n, Test samples: 3, 5 and 9 colour steps, grey=0,500, expu=1,000, expa=0,500, exp=2,000

TUB-test chart hed9; Separate grey samples for visual intervall scaling, evaluation of the series N−W with 3, 5 and 9 steps, output $(rgb^*)^{0,5}$ & experimental; surround mean Grey U=N08w