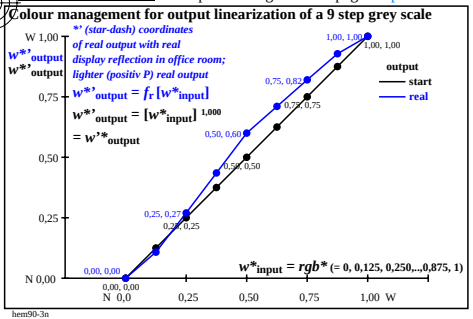
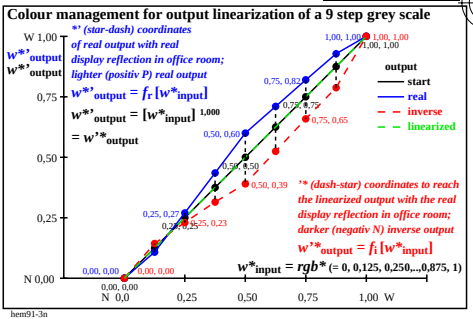
Colour management for output linearization of a 9 step grey scale



hem90-3n

Colour management for output linearization of a 9 step grey scale



hem91-3n

Three, 5 and 9 colour steps for visual evaluation

s: 0, 125, 250, 375, 500, 625, 750, 875, 1000

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

Gelb Y00w – Gelb Y16w = White W

Y00w	Y08w	Y16w	Y00w	Y04w	Y08w	Y12w	Y16w	Y00w	Y02w	Y04w	Y06w	Y08w	Y10w	Y12w	Y14w	Y16w
								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					0,00		1,00		0,00		1,00
			0,00	b1=e04*a1	b2=a1	b3=e48* (1−b2)+b2	1,00	0,00	c1=e02*b1	c2=b1	c3=e24* (b2−b1)+b1	c4=b2	c5=e46* (b3−b2)+b2	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	0,40	1,00	0,00	0,49	0,00	0,50	1,00	0,00	0,60	1,00
0,000	0,600	1,000	0,000	0,270	0,600	0,000	0,108	0,270	0,435	0,600	0,390	0,710	0,820	0,928	1,000	
0,000	0,390	1,000	0,000	0,230	0,390	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

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

Gelb Y00w – Gelb Y16w = White W

Y00w	Y08w	Y16w	Y00w	Y04w	Y08w	Y12w	Y16w	Y00w	Y02w	Y04w	Y06w	Y08w	Y10w	Y12w	Y14w	Y16w

hem3c7c: Test samples: 3, 5 and 9 colour steps; wuc=0,500, exp=1,000, exp=1,000, exp=1,000

TUB-test chart hem9; separate grey samples for visual intervall scaling, evaluation of the series Y_W with 3, 5 and 9 steps, output $(rgb^*)^{1,0}$ & experimental; surround mean Grey U=N08w