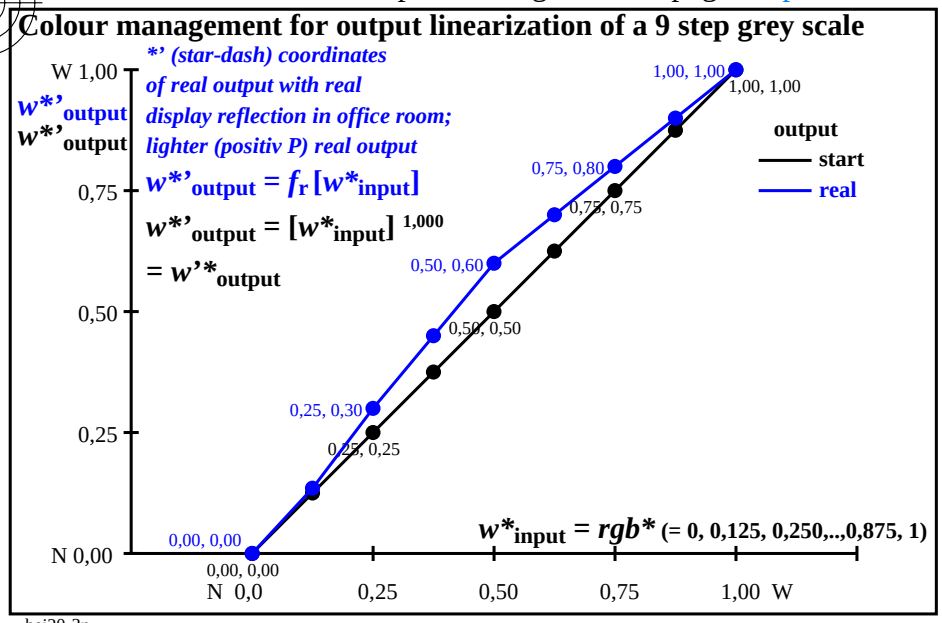
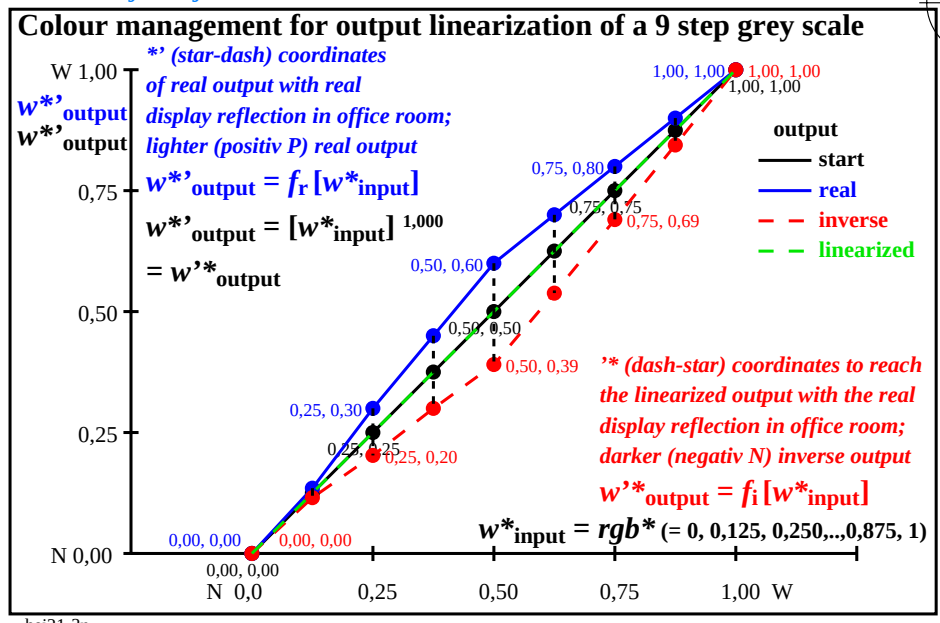
Colour management for output linearization of a 9 step grey scale



hej20-3n

Colour management for output linearization of a 9 step grey scale



hej21-3n

s: 0, 125, 250, 375, 500, 625, 750, 875, 1000
Black N00m − Black N16m = Magenta M
$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

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
N00m	N08m	N16m	N00m	N04m	N08m	N12m	N16m	N00m	N02m	N04m	N06m	N08m	N10m	N12m	N14m	N16m
								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		0,00	e02=0, . .	1,00		0,00	e46=0, . .	1,00		0,00	
0,00	a1=e08	1,00	0,00	b1=e04*a1	0,00	e48=0, . .	1,00	c1=e02*b1	0,00	c24=0, . .	1,00	c5=e46*	0,00	e68=0, . .	1,00	
					b2=a1	b3=e48*			c2=b1	c3=e24*	c4=b2	(b3−b2)+b2	c6=b3	c7=e68*		
						(1−b2)+b2				(b2−b1)+b1				(1−b3)+b3		

Three, 5 and 9 colour steps, numeric calculation example

0,00	0,60	1,00	0,00	0,50	1,00		0,00	0,45	1,00		0,00	0,50	1,00		0,00	
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
Black N00m − Black N16m = Magenta M
$L^*_{TUBLOG,U}=[50/\log(5)]\ \log(Y/Y_U)+50$, $Y_N=4$, $Y_U=20$, $Y_W=100$

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
	N00m	N08m	N16m	N00m	N04m	N08m	N12m	N16m	N00m	N02m	N04m	N06m	N08m	N10m	N12m	N14m	N16m

hej20-7n, Test samples: 3, 5 and 9 colour steps, greu=0,500, expu=1,000, expa=1,000, expi=1,000