

EOCF power function exponents for various applications are cataloged here.

EOCF Exponent	Application
1	linear-light (radiometric)
1.7	historical SGI; historical Kodak Cineon
1.8	historical Macintosh (graphics arts dot gain)
2.0	typical consumer TV in bright environment
2.2	historical NTSC; sRGB; Adobe RGB 1998; typical consumer TV in dim environment
2.35~2.4	typical studio SD/HD reference display
2.6	DCI digital cinema
2.8	hypothetical PAL, SECAM
3	historical "value"

<i>Control name in processing equip.</i>	<i>Control name in display equip.</i>	<i>One-word description of perceptual attribute</i>	<i>Preferred name</i>
[VIDEO] GAIN	CONTRAST (or PICTURE)	brightness	WHITE LEVEL
BLACK LEVEL	BRIGHTNESS	– <i>no single-word description</i> –	BLACK LEVEL
PHASE	COLOR (or HUE)	hue	HUE
CHROMA [GAIN]	TINT (or SATURATION)	colourfulness	CHROMA
– <i>not typically provided</i> –	– <i>not typically provided</i> –	contrast	GAMMA

Table 8.1 **Image controls** in image processing and display are summarized.

exposure	stops below peak white	density units below peak white	Linear-light	pure Weber-Fechner 1%	CIE L*	pure log 100 code	quasi-log 90 code	quasi-log 60 code (FilmStream)	BT.709 code (studio swing)	"8 log 38" quasi-log code	codes/stop
1.000000	0	0.0	1023	1023	100	255	1023	955	876	255	255
0.501187	1	0.3	512	954	76	217	868	798	619	217	217
0.251189	2	0.6	256	884	57	179	716	644	430	180	180
0.125893	3	0.9	128	815	42	140	569	497	292	144	144
0.063096	4	1.2	64	745	30	102	430	362	191	110	110
0.031623	5	1.5	32	676	21	64	304	246	117	79	79
0.015849	6	1.8	16	606	13	26	200	154	62	52	52
0.007943	7	2.1	8	537	7	-13	122	90	31	32	32
0.003981	8	2.4	4	468	4	-51	69	49	16	18	18
0.001995	9	2.7	2	398	2	-89	37	26	8	10	10
0.001000	10	3.0	1	329	1	-128	19	13	4	5	5
0.000501	11	3.3	1	259	0	-166	10	7	2	3	3
0.000251	12	3.6	0	190	0	-204	5	3	1	1	1
0.000126	13	3.9	0	121	0	-242	3	2	0	0	0
0.000063	14	4.2	0	51	0	-281	1	1	0	0	0
0.000032	15	4.5	0	-18	0	-319	1	0	0	0	0
0.000016	16	4.8	0	-88	0	-357	0	0	0	0	0
0.000008	17	5.1	0	-157	0	-395	0	0	0	0	0
0.000004	18	5.4	0	-227	0	-434	0	0	0	0	0
0.000002	19	5.7	0	-296	0	-472	0	0	0	0	0
0.000001	20	6.0	0	-365	0	-510	0	0	0	0	0
Total codes			1023	1388	100	765	1023	955	876	255	255

Codes-per-stop spreadsheet shows a range of 21 exposure values at the left, covering a million-to-one range of exposure (light power). The corresponding stops and visual density units are indicated. For half a dozen different coding systems, each pair of columns indicates the code (pixel) value at one-stop intervals, and the number of codes contained in each stop.