

<http://farbe.li.tu-berlin.de/get1/get10n1.txt> /ps; only vector graphic VG; see separate images of this page: <http://farbe.li.tu-berlin.de/get1/get1.htm>

see similar files of the whole series: <http://farbe.li.tu-berlin.de/gets.htm>
 technical information: <http://farbe.li.tu-berlin.de> or <http://color.li.tu-berlin.de>

```
*****
%%BEG Frame File Linearization Method FF_LM_real (re) hex (h) and decimal (d)
0 a2gray          This example EPS code is used in
0 0 moveto        6000 0 rlineto 0 4000 rlineto    http://color.li.tu-berlin.de/get1/get1-3n.txt
                    6000x 4000 mm
add 3820 moveto   0 0 rlineto closepath stroke      http://color.li.tu-berlin.de/get1/get1-3n.pdf

/xdd 050 def /ydd 138 def          %x-position and line difference
TLR 0 a2gray          %real, size and black color
add 3820 moveto        %font position and table text
(Table xyreh_1024 in hex (h 0:1023) calculated with xrehj-j & gamma) show      Main Table text

/xrehj 1024 array def /yrehj 1024 array def      %real data hex (h)
/xredj 1024 array def /yredj 1024 array def      %real data decimal (d)
/xinhj 1024 array def /yinhj 1024 array def      %inverse data hex (h)
/xindj 1024 array def /yindj 1024 array def      %inverse data decimal (d)

/gamma 2.000 def      %possible gamma changes: 1.0 -> 2.0, 0.5, 1.5, 0.667
%calculation of the table xyreh1024 (h=hex) of 1024 values (h 0:1023) with gamma
0 1 1023 {/j each def %j=0:1023
  xrehj j      put %%BEG h 0:1023
  xredj j      %redj 1023 div gamma exp      put %decimal (d 0:1.000)
  yrehj j      %yrehj 1023 div gamma exp      put %decimal (d 0:1.000)
  yredj j      %yredj j get 1023 mul cvi put %%END h 0:1023
} for %j=0,1023

TW /yW 3650 def add yW0 moveto          %font, size, position
%Table xyreh_1024, basic real data in hex (h 0:1023) for xrehj and y, i show
{ 0 0 a2rgbcolor (gamma=) show gamma cvsinhow 0 a2gray gamma value in red }
Subtable text

TW /yW 1.1 ydd mul sub def              %font, size, position
{/j each def %j=0.0259
  /j 10 idiv def
  /jd j 10 mul sub def
  add jd 600 mul add yW0 j ydd mul sub moveto
  xrehj j get cvsinhow /i show yredj j get cvsinhow j      %Output xrehj, yrehj
} for %j=0.0259

%%END Frame File Linearization Method FF_LM_real (re) hex (h) and decimal (d)
*****
get10-3a
```

```
*****
%%BEG Frame File Linearization Method FF_LM_real (re) inverse (in), hex (h), decimal (d)
/xdd 050 def /ydd 133 def          %x-position and line difference
TLR 0 a2gray          %font, size and black color
add 3820 moveto        %top position and table text
(Table xyinh_1024 produced by FF_LM_xcharat_gamma from xyreh_1024) show      Main Table text

/xrehj 1024 array def /yrehj 1024 array def      %real data hex (h)
/xredj 1024 array def /yredj 1024 array def      %real data decimal (d)
/xinhj 1024 array def /yinhj 1024 array def      %inverse (in) data hex (h)
/xindj 1024 array def /yindj 1024 array def      %inverse (in) data decimal (d)
TW /yW 3650 def          %font, size, position
add yW0 moveto          %Sub Table text

%Table xyinh_1024, inverse data in hex (h 0:1023) for xyreh_1024 (h 0:1023), i show,
{ 0 0 a2rgbcolor (gamma=) show gamma cvsinhow 0 a2gray }

%procedure for transfer xrehj, yrehj -> xinhj, yinhj
%use of the table data xyreh1024 (h=hex) of real values (reh) with gamma
%%FF_LM_xcharat_gammaF (%%BEG FF_LM_xcharat_gammaF 240715
  /yreh each def %h= yreh e-1023
  xinhj j yrehj yreh get put %inverse data yrehj->xinhj
  xinhj j xrehj yreh get put %inverse data xrehj->yinhj
  xinhj j get      %toupout of yinhj
  def %%END %%FF_LM_xcharat_gammaF 240715
)

%Application of FF_LM_xcharat_gamma and output
TW /yW 1.1 ydd mul sub def
0 0 0.259 {/j each def %j=0.0259
  xrehj j get FF_LM_xcharat_gammaF
  available now xinhj, yinhj
  xindj j yinhj j get 1023 div put
  yindj j yinhj j get 1023 div put
  /j 10 idiv def /jd j 10 mul sub def
  add jd 600 mul add yW0 j ydd mul sub moveto
  xinhj j get cvsinhow /i show yinhj j get cvsinhow
} for %j=0.0259

add 050 moveto
{/for gamma=2 and j=0:1023: xinhj-yrehj, yinhj-xrehj-j, } show
%similar for decimal values xindj-yredj, yindj-xredj-xrehj/1023) show
%%END Frame File Linearization Method FF_LM_real (re) hex (h) and decimal (d)
*****
Output xinhj, yinhj
get10-7a
```

Table xyreh_1024 in hex (h 0:1023) calculated with xrehj=j & gamma

Table xyreh_1024, basic real data in hex (h 0:1023) between x and y, gamma=2.000

0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
10	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
20	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0	31	0	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
40	1	41	1	42	1	43	1	44	1	45	1	46	2	47	2	48	2	49	2
50	2	51	2	52	2	53	2	54	2	55	2	56	3	57	3	58	3	59	3
60	3	61	3	62	3	63	3	64	3	65	4	66	4	67	4	68	4	69	4
70	4	71	4	72	5	73	5	74	5	75	5	76	5	77	5	78	5	79	6
80	6	81	6	82	6	83	6	84	6	85	7	86	7	87	7	88	7	89	7
90	7	91	8	92	8	93	8	94	8	95	8	96	9	97	9	98	9	99	9
100	9	101	9	102	10	103	10	104	10	105	10	106	10	107	11	108	11	109	11
110	11	111	12	112	12	113	12	114	12	115	12	116	13	117	13	118	13	119	13
120	14	121	14	122	14	123	14	124	15	125	15	126	15	127	15	128	16	129	16
130	16	131	16	132	17	133	17	134	17	135	17	136	18	137	18	138	18	139	18
140	19	141	19	142	19	143	19	144	20	145	20	146	20	147	21	148	21	149	21
150	21	151	22	152	22	153	22	154	23	155	23	156	23	157	24	158	24	159	24
160	25	161	25	162	25	163	26	164	26	165	26	166	27	167	27	168	27	169	27
170	28	171	28	172	28	173	29	174	29	175	29	176	30	177	30	178	30	179	31
180	31	181	32	182	32	183	32	184	33	185	33	186	34	187	34	188	34	189	34
190	35	191	35	192	36	193	36	194	36	195	37	196	37	197	37	198	38	199	38
200	39	201	39	202	39	203	40	204	40	205	41	206	41	207	41	208	42	209	42
210	43	211	43	212	43	213	44	214	44	215	45	216	45	217	46	218	46	219	46
220	47	221	47	222	48	223	48	224	49	225	49	226	50	227	50	228	50	229	51
230	51	231	52	232	52	233	53	234	53	235	54	236	54	237	54	238	55	239	55
240	56	241	56	242	57	243	57	244	58	245	58	246	59	247	59	248	60	249	60
250	61	251	61	252	62	253	62	254	63	255	64	256	64	257	65	258	65	259	65

For gamma=2 and j=0 to 1023: xrehj-yinhj-j, yrehj-xinhj, xrehj-xredj/1023

Table xyinh_1024 produced by FF_LM_xcharat_gamma and xyreh_1024

Table xyinh_1024, inverse data in hex (h 0:1023) for xyreh_1024 (h 0:1023), gamma=2.000

0	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9
10	0	11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
20	0	21	0	22	0	23	0	24	0	25	0	26	0	27	0	28	0	29	0
30	0	31	1	32	1	33	1	34	1	35	1	36	1	37	1	38	1	39	1
40	1	41	1	42	1	43	1	44	1	45	2	46	2	47	2	48	2	49	2
50	2	51	2	52	2	53	2	54	2	55	3	56	3	57	3	58	3	59	3
60	3	61	3	62	3	63	3	64	3	65	4	66	4	67	4	68	4	69	4
70	4	71	4	72	5	73	5	74	5	75	5	76	5	77	5	78	6	79	6
80	6	81	6	82	6	83	6	84	6	85	7	86	7	87	7	88	7	89	7
90	8	91	8	92	8	93	8	94	8	95	9	96	9	97	9	98	9	99	9
100	9	101	10	102	10	103	10	104	10	105	10	106	10	107	11	108	11	109	11
110	12	111	12	112	12	113	12	114	12	115	13	116	13	117	13	118	13	119	13
120	14	121	14	122	14	123	15	124	15	125	15	126	15	127	16	128	16	129	16
130	16	131	17	132	17	133	17	134	17	135	18	136	18	137	18	138	18	139	18
140	19	141	19	142	19	143	20	144	20	145	20	146	21	147	21	148	21	149	21
150	22	151	22	152	22	153	23	154	23	155	23	156	24	157	24	158	24	159	24
160	25	161	25	162	25	163	26	164	26	165	26	166	27	167	27	168	27	169	27
170	28	171	28	172	28	173	29	174	29	175	30	176	30	177	30	178	31	179	31
180	32	181	32	182	32	183	33	184	33	185	34	186	34	187	34	188	34	189	34
190	35	191	36	192	36	193	36	194	37	195	37	196	37	197	38	198	38	199	38
200	39	201	39	202	40	203	40	204	41	205	41	206	41	207	42	208	42	209	42
210	43	211	43	212	44	213	44	214	45	215	45	216	46	217	46	218	46	219	46
220	47	221	47	222	48	223	48	224	49	225	49	226	50	227	50	228	51	229	51
230	51	231	52	232	52	233	53	234	53	235	54	236	54	237	55	238	55	239	55
240	56	241	56	242	57	243	58	244	58	245	59	246	59	247	60	248	60	249	60
250	61	251	62	252	62	253	63	254	63	255	64	256	64	257	65	258	65	259	65

For gamma=2 and j=0 to 1023: xinhj-yrehj, yinhj-xrehj-j, similar for decimal values xindj-yredj, yindj-xredj-xrehj/1023

TUB-test chart get1; PostScript eps Code for output linearization and output, calculation of tables xyreh_1024 and xyinh_1024 calculated with FF_LM_xcharat_gammaF, for values j=0,259, gamma=2

TUB registration: 20240701-get1/get10n1.txt /ps
 application for evaluation and measurement of display or print output
 TUB material: code=th44a