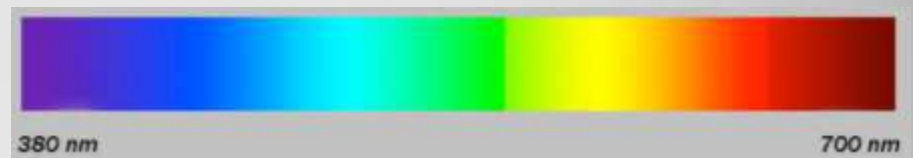


Kalibreerimine/ profileerimine

Andres Uueni
Ennistuskoda Kanut



- Valgus – objekt – inimene / vastuvõtja
- Fotograafid – Trükkalid – Kujundajad
- Tööprotsessi standardiseerimine
 - Apple Mac m/v kuvar



- **Värv**

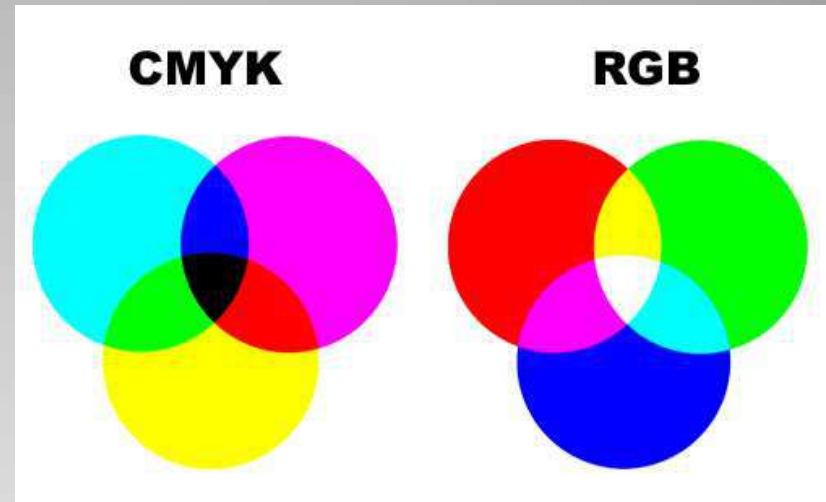
- Toon (nimi)
- Küllastus (max : r 0 g 255 b 0)
- Heledus (valgus)

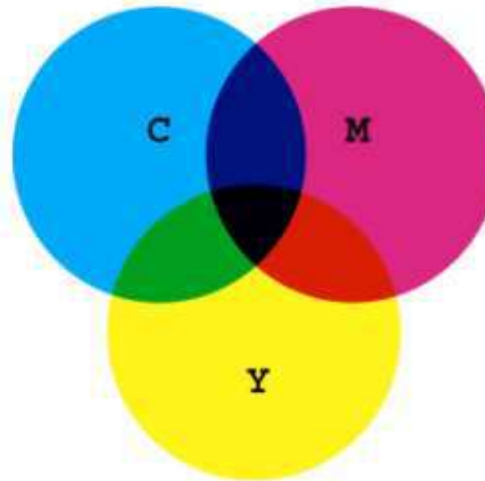
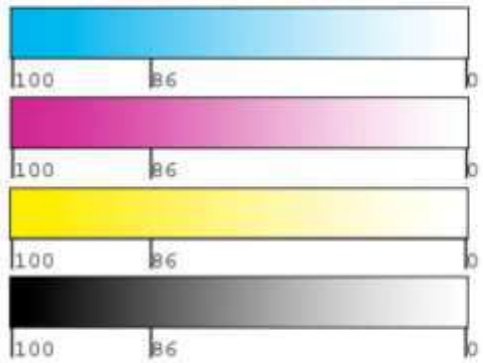
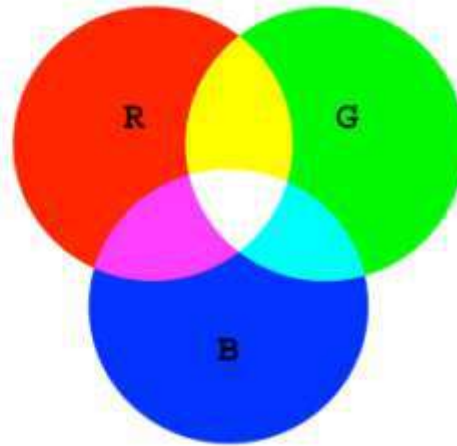
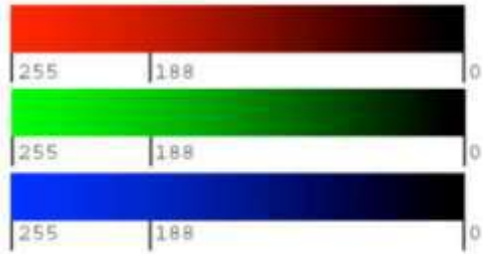
- **RGB – aditiivne värvimudel**

- kiirgab ühte põhivärvi ja neelab kaks

- **CMYK - subraktiivne värvimudel**

- neelab ühe aditiivse värvi, kuid peegeldab kahte





- icc standard
 - D50 -5400K
 - D65 -6500K
- Optilised valgendid ($x > 100\%$)
- Ideaalis color render index cri = 98

noon sunlight – 6500K – päevavalgus

tungsten lamp – 2700-3400K – tavaline hõõglamp

gaaslahenduslamp, luminofoorlamp – 5500-6500K

välklamp – 5500K

- Spektrofotomeeter

- Kolorimeeter

- Monitori optimaalne tehniline seis (color/factory reset)

- Native white / medium white (6500K)

- ~~Gamma 1.8~~

- Gamma 2.2 / native

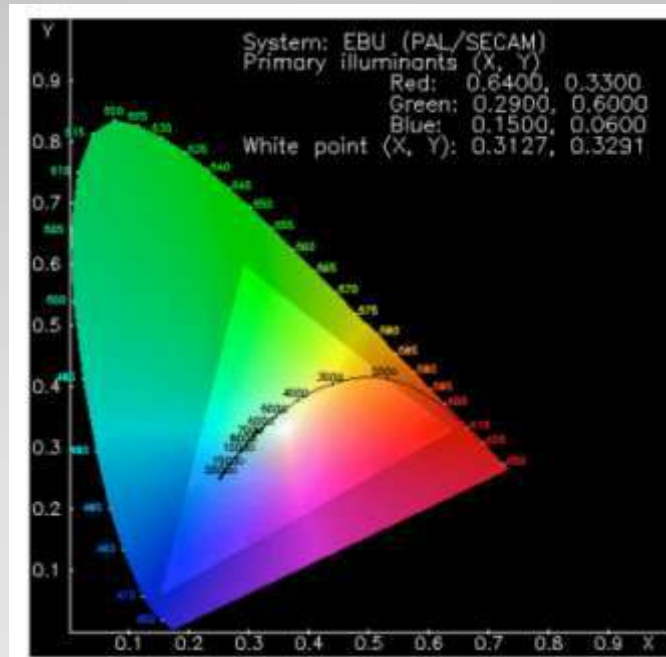
- LCD RGB seadeid ei muudeta raudvara tasemel vaid vcgt-tag abil

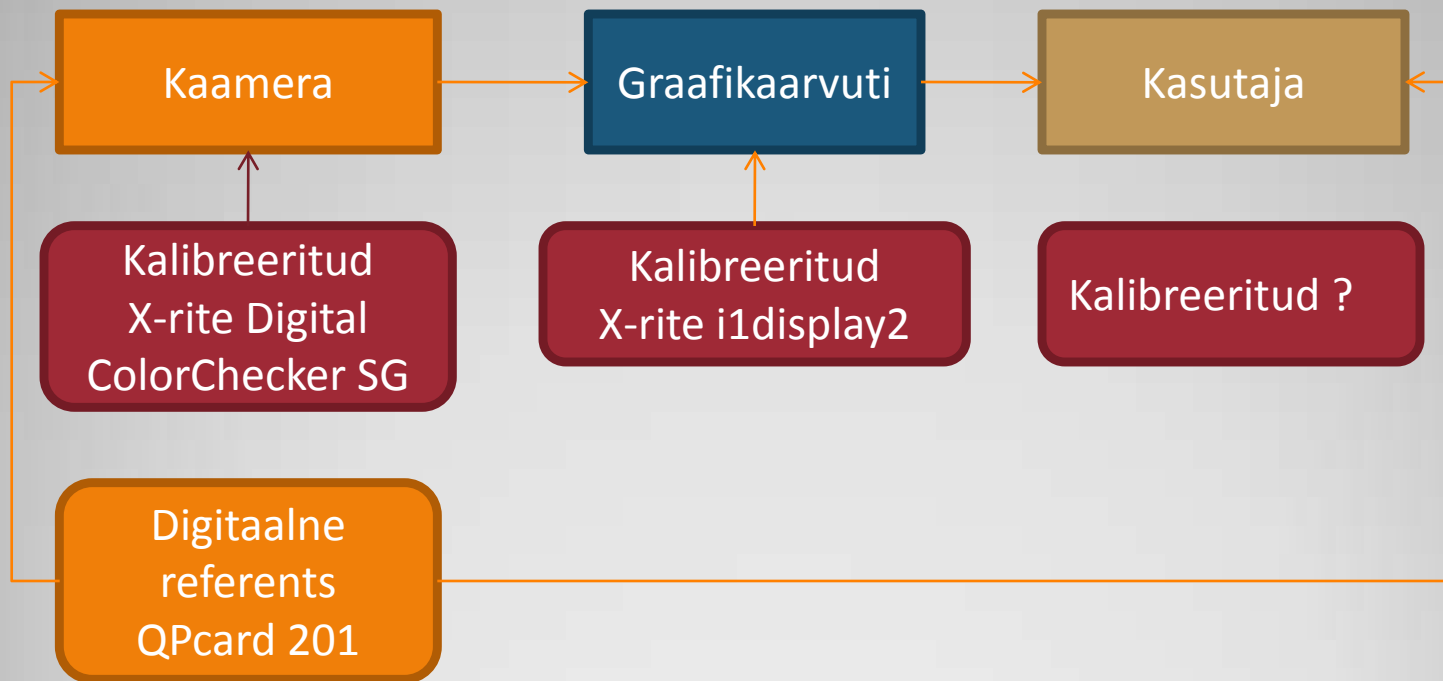


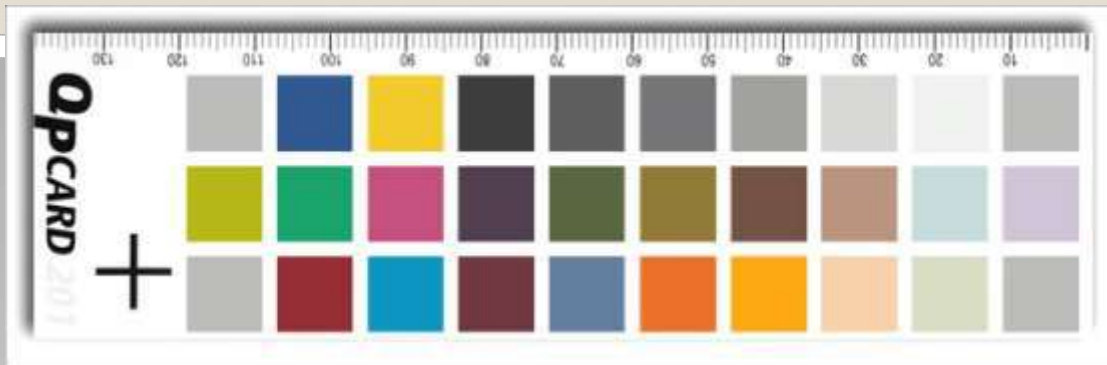
- Led monitor ca cri=70
- Valge punkt
- Must punkt

- Eizo, Dell, Nec
 - Display port
 - Signaal võimaldab 12-16bit

- Värvikamut
 - CIE XYZ
 - CIE LAB







File Edit View Document Comments Tools Window Help

Open... Zoom In 100%

Properties...

nv88326_9FCF6D48075942B84B9509C2C8D9...

QPCard 201 Patch Numbers

QPCard 201	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30

Patch No	X*Y*Z			L*a*b D65 10°			AdobeRGB (1998)		
	X	Y	Z	L	a	b	R	G	B
1	47.8	50.5	53.2	76	0	1	186	186	184
2	9.3	9.6	27.6	37	1	-36	66	89	142
3	60.7	62.1	11.2	83	4	76	230	201	64
4	4.4	4.6	4.9	26	0	0	64	64	64
5	10.5	11.1	11.9	40	0	0	94	94	94
6	16.8	17.8	19.5	49	0	-1	115	116	117
7	32.9	34.7	36.8	66	0	1	159	159	157
8	65.1	68.9	72.5	86	0	1	214	214	212
9	81.8	86.6	91.0	95	-1	1	239	241	238
10	47.8	50.5	53.2	76	0	1	186	186	184
11	36.9	43.1	7.0	72	-13	71	179	180	46
12	15.7	26.5	17.4	59	-47	19	92	161	109
13	29.8	19.5	20.8	51	50	0	171	81	122
14	6.2	5.7	7.9	29	9	-7	76	66	80
15	10.1	12.3	6.8	42	-12	20	93	104	69
16	19.9	20.5	6.5	52	2	39	136	121	62
17	11.0	9.8	6.8	38	12	13	105	83	71
18	36.2	34.2	25.0	65	13	17	177	148	128
19	60.7	67.5	73.7	86	-8	-1	203	219	216
20	56.3	58.5	70.3	80	7	-8	202	193	212
21	47.8	50.5	53.2	76	0	1	186	186	184
22	14.5	8.9	4.3	36	44	21	130	50	57
23	18.6	24.8	52.5	57	-24	-32	81	149	189
24	9.6	7.2	6.1	32	25	6	101	61	69
25	18.0	19.8	34.8	52	-4	-21	108	126	157
26	43.0	30.9	5.8	62	46	60	209	112	49
27	57.0	49.6	6.6	76	36	80	233	166	37
28	69.3	68.9	47.9	86	9	24	234	207	170
29	64.5	69.0	59.9	87	-4	13	217	219	193
30	47.8	50.5	53.2	76	0	1	186	186	184

21.00 x 28.70 cm

Options

1 #1

AS

- Iga tark-ja riistvara renderdab värve erinevalt
 - kujutise töötlemise programmid
 - Veebisirvijad
 - eelvaatlus programmid
 - +etc.
- Põhimõtteliselt pole 100% võimalik kontrollida seda, mida kasutaja näeb.

- Kasutatavast tarkvarast (InfranView, PS +etc.)
- Monitoridel laiem värvi skaala (gamut) kui 'sRGB'
- Kindasti suunas
 - Adobe RGB kujutis -> sRGB

Värvide kuvamine

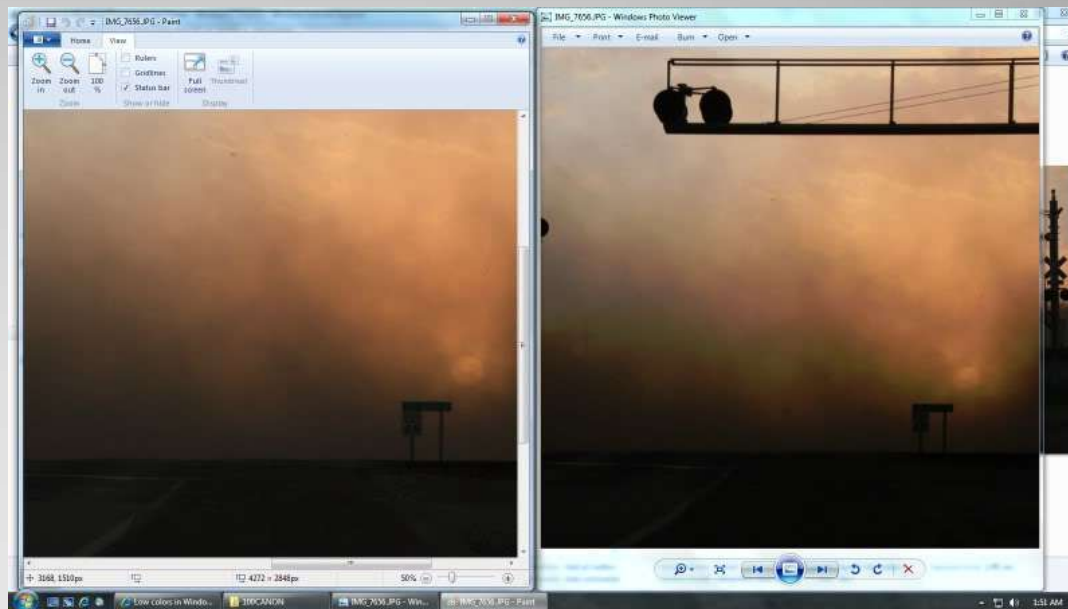
Windows Picture and Fax viewer

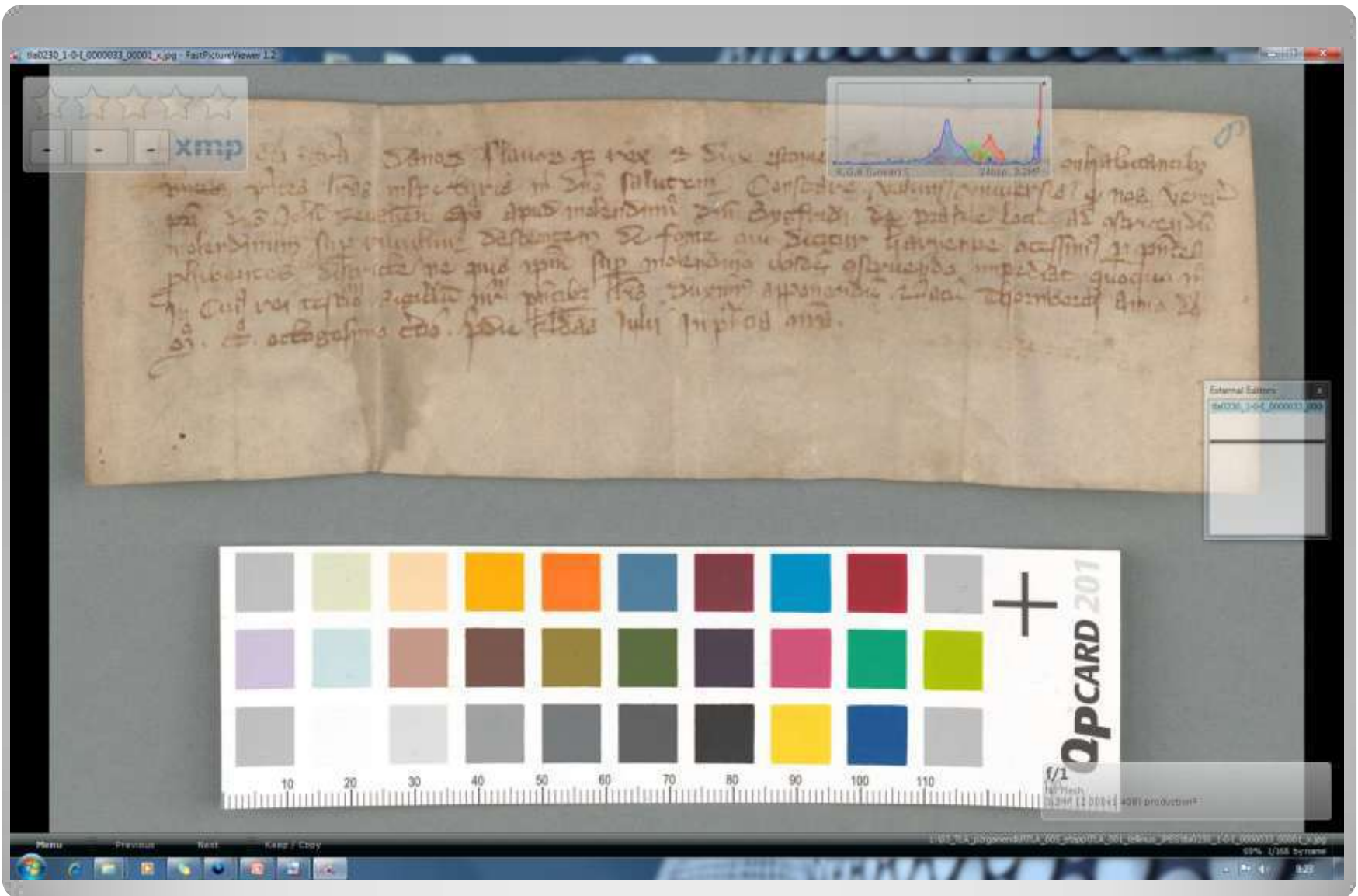
- ei hallata värve

Erinevus on peamiselt selles, et WPFV ainult korrigeerib sisendkujutise profiili aga ei tee kuvamisel mingit korrigeerimist ega kohandamist vastavalt PC süsteemi kuvari profiilile.

See on seetõttu, et WPFV ei kasuta OS poolt pakutavat ICM profiile (Image Color Management) nagu nt teeb PS.

Windows ise ei 'opereeri' ühegi spetsiifilise värviskaalaga. Ainult rakendused, mis oskavad kasutada ICM-i, kasutavad seda informatsiooni. Kui värvi profiile ei kasutata siis rakendus peab 'eeldama'/'oletama' kuidas interpreteerida kujutisel olevaid värve.

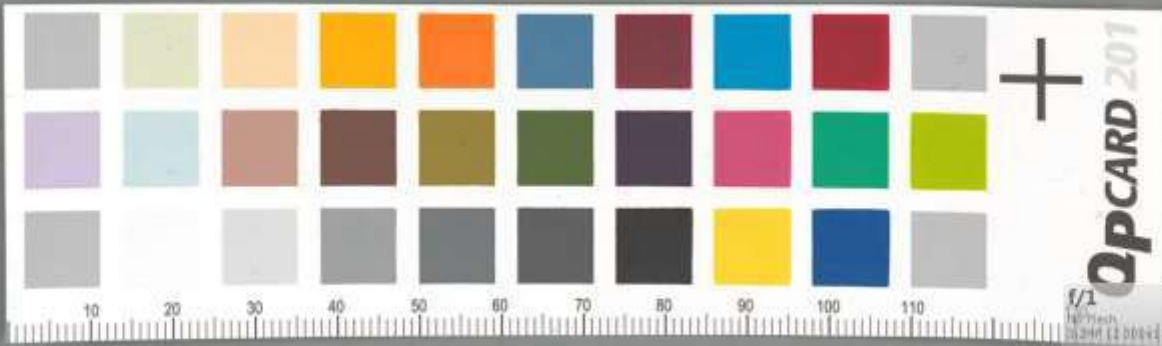


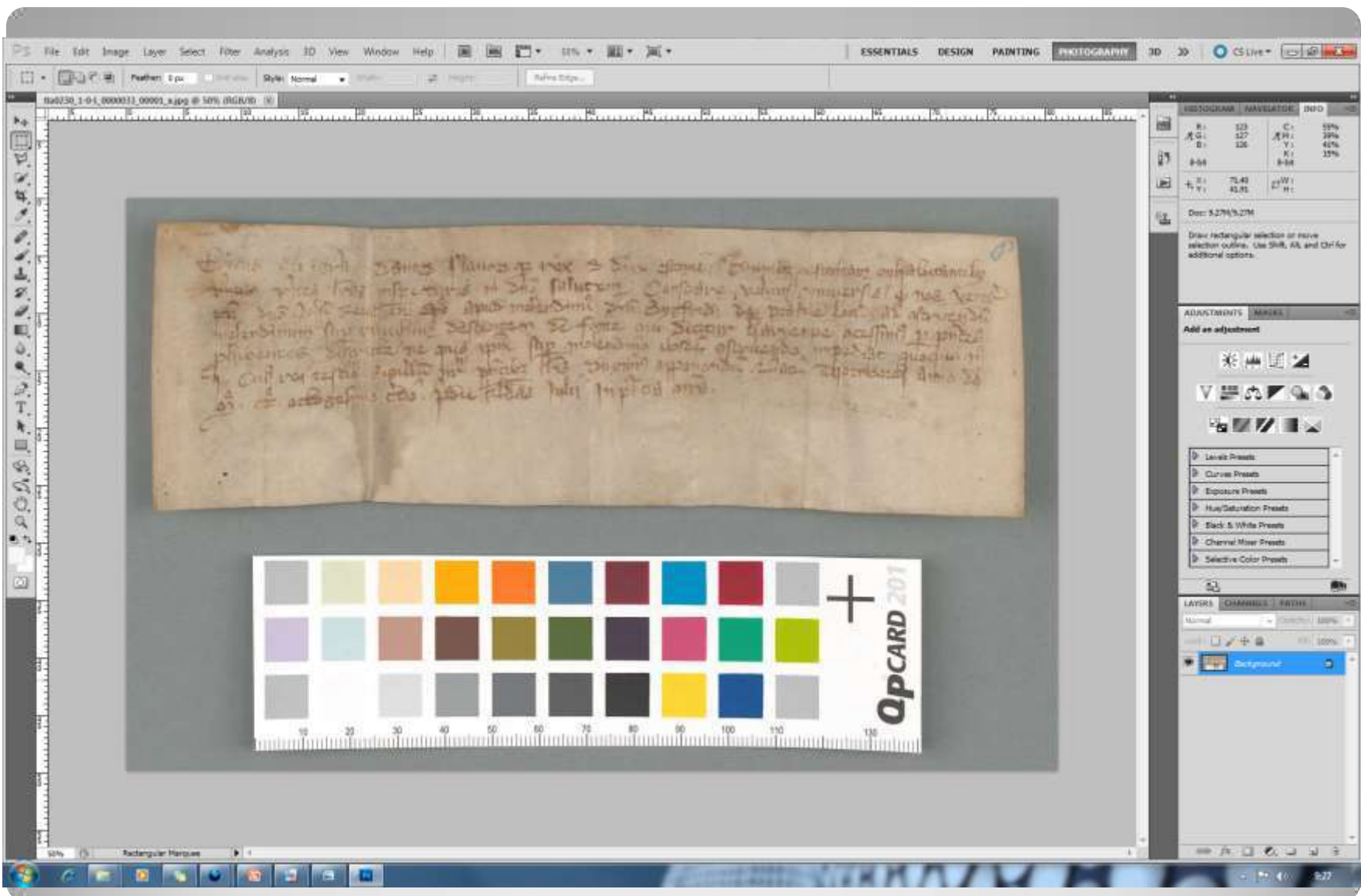


Sanos Plures p rex & Sicu stome
... in dno saluam Considerat Natu...
... apud maldim dno Byofind...
... de fonte au Deagur hancur...
... quocum in
... Julij In p ad m.



External Editor
File Edit View Help





HISTOGRAM		NAVIGATOR		INFO	
R	523	C	59%		
G	527	M	38%		
B	526	Y	46%		
K		K	35%		
#54		#54			
X	75.43	W			
Y	42.81	H			

Doc: 5.27% (5.27%)

Draw rectangular selection or move selection outline. Use Shift, Alt, and Ctrl for additional options.

- ADJUSTMENTS MARKS
- Add an adjustment
- Levels Presets
 - Curves Presets
 - Exposure Presets
 - Hue/Saturation Presets
 - Black & White Presets
 - Channel Mixer Presets
 - Selective Color Presets

- LAYERS CHANNELS PATHS
- Manual [Control] 100%
- [New Layer] [Delete] [Opacity] 100%
- Background

Tänan!

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andres.uueni@kanut.ee