

Application Note: Preparing designs of picture rugs

Project specification

Machine Specification:

- Reed density : 1200
- Number of colors: : 8
- Pile rows/cm
- Creel (1 to 8)

: 12 : 1 2 3 4 5 6 7 *

Design Specification:

- Size
- File format
- Color Resolution
- : 1200x1200 pixel
- : JPG (or any other supported file formats)
- : 24 bits/pixel (RGB)



Carpet Specification:

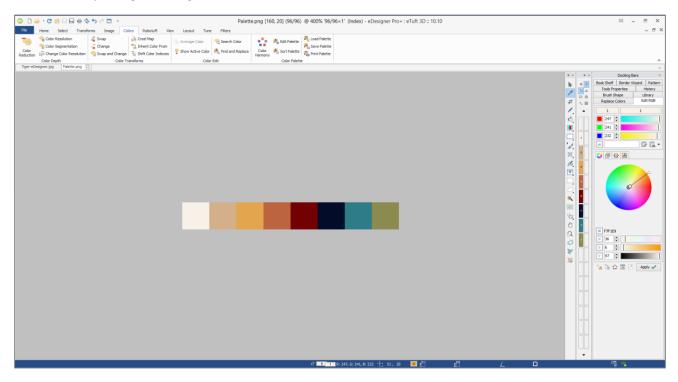
- Carpet size
 - Size
- : 2.0x2.0 m
- : 2400x2400 pixel





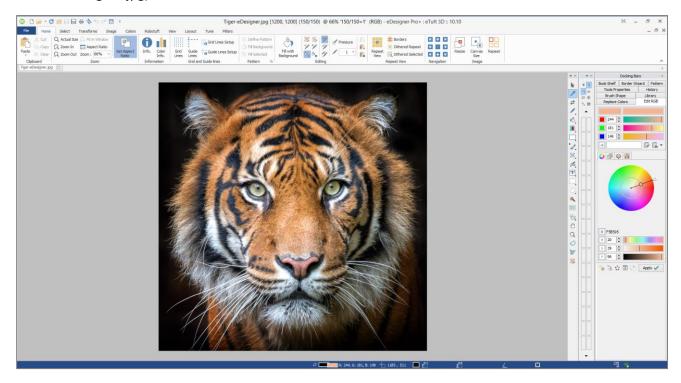
1. Preparing Color Palette

- 1.1. Open or create a design with desired color palette (in this case 8 colors as below).
- 1.2. Save the color palette by clicking on "Save Palette" button and choosing a proper name for it (for example: Tiger-eDesigner.PAL).



2. Adjusting Design Size

2.1. Open the design file in any desired file format or color resolution (in this example TigereDesigner.jpg).



Click on "Info." Button to see the design information as below:



	Information ×
ab D: \EFAB - Graphics \Brochures \eDesigner \	Tiger\Tiger-eDesigner.jpg
H 1200 [Pixel] 20.32 cm V	Color Palette
[] 1200 [Pixel] 20.32	
[] 150 /10 cm dpi 150x150	
150 /10 cm 4219 KB	
(SQM) [SQM] 24 Bits	
2 23	Show used colors Show color index
	Close

As you can see the dimension of design is 1200x1200 pixels and it has 393,488 colors!

- 2.2. On "Home" tab click on "Resize" button to change the dimension of design.
- 2.3. Go to "Densities" tab to define the densities of design into 120/10cm.

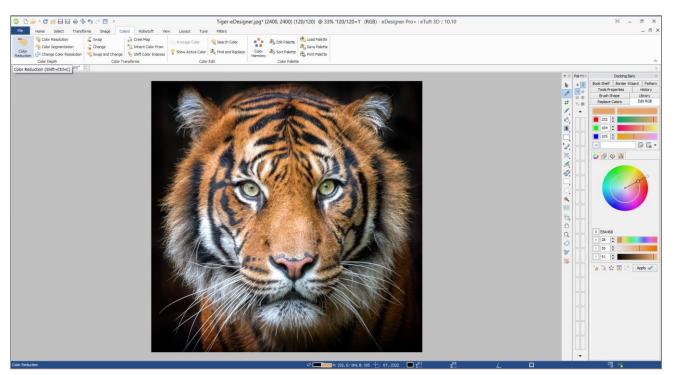
Re	size ×
Resample Directional Insert	Remove Densities DPI
120 (10 cm	
120 /10 cm	Constrain Properties
H 100 cm	✓ 0.833 ▲
100	
Original Image Information	
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1200 [pixel]	80
dpi 150x150	Densities V
Densities	
150 /10 cm	150 /10 cm
	Apply Close

2.4. Go to "Resample" tab to change the size of design. Since we want to have the carpet in 2.0x.2.0 meter then we shall change the design size into 2400x2400 pixels.

Since the original design has 24 bits/pixel color resolution and the type of it is "RGB", choose the "Interpolation Type" as "Bicubic" to get the highest quality in resizing. Then click on "Apply".

R	esize			×							
Resample Directional Inse	rt/Remove	Densities	DPI								
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	Арр	bly	Close	2							

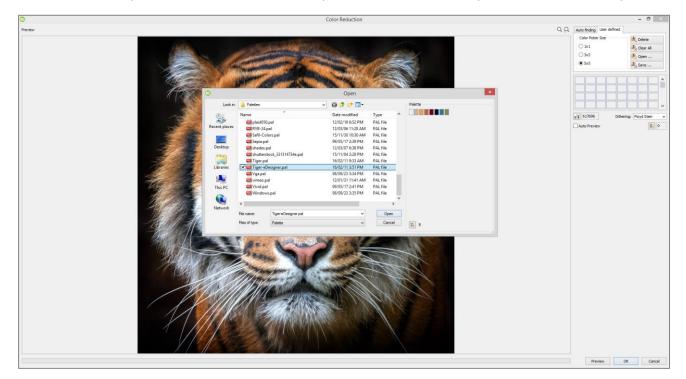




Now design will be in 2400x2400 pixels and 617,696 colors.

3. Reduce the number of colors

- 3.1. Go to "Colors" tab and click on "Color Reduction" button.
- 3.2. On "Color Reduction" dialog select the "User defined" tab.
- 3.3. Click on "Open ..." button to load the color palette of machine which you have saved it on step 1.2.



3.4. After opening the proper palette (Tiger-eDesigner.PAL), choose the desired "Dithering" method. In eDesigner software there are eight different dithering methods. You can choose the different options to get the different effects.





Before color reduction with 617,696 colors because of Bicubic resampling

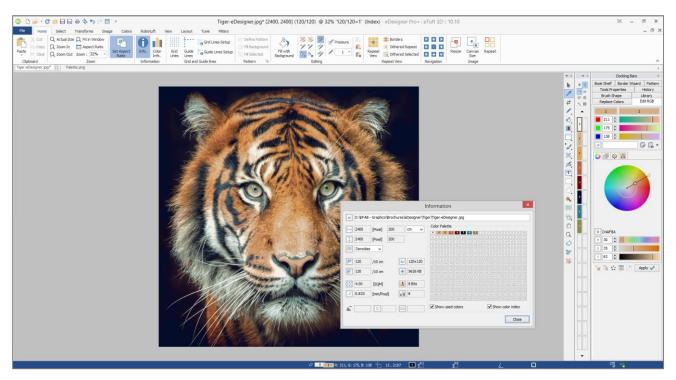
3.5. Click on "Preview" to see the result of color reduction. Now number of colors will be reduced into 8 colors with desired color palette as below!



After color reduction with 8 colors!

- 3.6. Click "OK" to apply the color reduction.
- 3.7. Now if you click on "Info." button you will see the design will have only 8 colors and the color resolution of design will be 8 bits/pixel and type of it is "Index".





3.8. Click on "Edit Palette" to check the creel positions and if it is necessary change the color positions.

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0	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	31	•	0	
32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47			
48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63		+	
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80	\$1	82	\$3	84	85	86	87	**	89	90	91	92	93	94	95		16	
96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111			
112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127			
128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	Shift palette colors only		
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160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175			
176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191			
192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	Average	Average All	
208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223			
224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	Fill	Fill Color	
240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255		1 11 00101	
	Show used colors Show color index											Edit	Print					

3.9. Save the design.





Final design in 8 colors.

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