Barvne slike

Pretvori barvo iz RGB barvnega prostora v HSV barvni prostor:

R	G	B	H	S	V
255	34	126	0.93	0.87	1
30	26	130	0.67	0.8	0.51
105	205	11	0.25	0.95	0.80

Za prvi primer:

- R = 255, G = 34, B = 126
- C_{max} = 255, C_{high} = 255, C_{low} = 34, C_{rng} = C_{high} - C_{low} = 221
- S = C_{rng} / C_{high} = 0.8667
- V = C_{high} / C_{max} = 1
- R’ = (C_{high} - R) / C_{rng} = 0, G’ = 1, B’ = 129 / 221
- H’ = 129 / 221 - 1
- H = (H’ + 6) / 6 = 0.39

Pretvori barvno iz HSV barvnega prostora v RGB barvni prostor:

H	S	V	R	G	B
0.1	0.4	0.95	242	203	145
0.65	0.7	0.15	11	14	38
0.4	0.32	0.47	81	120	97

Za prvi primer:

- H = 0.1, S = 0.4, V = 0.95
- H’ = (0.1 * 6) mod 6 = 0.6, v = V
- c_1 = low(H’), h_2 = H’ - c_1
- x = (1 - S) * V, y = (1 - (S * c_2)) * V, z = (1 - (S * (1 - c_2))) * V
- (R’, G’, B’) = …
    - c_1 = 0 … (v, z, x)
    - c_1 = 1 … (y, v, x)
    - c_1 = 2 … (x, v, z)
    - c_1 = 3 … (x, y, v)
    - c_1 = 4 … (z, x, v)
    - c_1 = 5 … (v, x, y)
- (R, G, B) = round((R’, G’, B’) * 255)

V Octave: `rgb2hsv` in `hsv2rgb`.