22.7. `colorsys` — Conversions between color systems¶

The `colorsys` module defines bidirectional conversions of color values between colors expressed in the RGB (Red Green Blue) color space used in computer monitors and three other coordinate systems: YIQ, HLS (Hue Lightness Saturation) and HSV (Hue Saturation Value). Coordinates in all of these color spaces are floating point values. In the YIQ space, the Y coordinate is between 0 and 1, but the I and Q coordinates can be positive or negative. In all other spaces, the coordinates are all between 0 and 1.

See also

More information about color spaces can be found at http://www.poynton.com/ColorFAQ.html and http://www.cambridgeincolour.com/tutorials/color-spaces.htm.

The `colorsys` module defines the following functions:

`colorsys.rgb_to_yiq`(*r*, *g*, *b*)¶
Convert the color from RGB coordinates to YIQ coordinates.

`colorsys.yiq_to_rgb`(*y*, *i*, *q*)¶
Convert the color from YIQ coordinates to RGB coordinates.

`colorsys.rgb_to_hls`(*r*, *g*, *b*)¶
Convert the color from RGB coordinates to HLS coordinates.

`colorsys.hls_to_rgb`(*h*, *l*, *s*)¶
Convert the color from HLS coordinates to RGB coordinates.

`colorsys.rgb_to_hsv`(*r*, *g*, *b*)¶
Convert the color from RGB coordinates to HSV coordinates.

`colorsys.hsv_to_rgb`(*h*, *s*, *v*)¶
Convert the color from HSV coordinates to RGB coordinates.

Example:

```
>>> import colorsys
>>> colorsys.rgb_to_hsv(.3, .4, .2)
(0.25, 0.5, 0.4)
>>> colorsys.hsv_to_rgb(0.25, 0.5, 0.4)
(0.3, 0.4, 0.2)
```

Previous topic

22.6. `chunk` — Read IFF chunked data

Next topic

22.8. `imghdr` — Determine the type of an image

This Page

- Show Source

Navigation

- index
- modules |
- next |
- previous |
- Python v2.6.4 documentation »
- The Python Standard Library »
- 22. Multimedia Services »