ColorPlus

Classes

Lab

Representation of CIELab colors with three components (l, a, b). To learn more about Lab Color Space visit https://en.wikipedia.org/wiki/Lab_color_space

Properties

l	L component defines lightness - lightness of 0 is black, lightness of 100 is white.
a	Negative a values indicate green while positive a values indicate magenta.
b	Negative b values indicate blue and positive b values indicate yellow.

Example

```
Lab myColor = new Lab(50f, -25f, 40f);
```

Lch

Representation of CIELCh colors with three components (l, c, h).

Properties

l	L component defines lightness - lightness of 0 is black, lightness of 100 is white.
c	C component defines chroma. Chroma of 0 means the color can be black, gray or white. Higher chroma corresponds to higher saturation.
h	H component defines hue. Range is from 0 to 360.

Example

```
Lch myColor = new Lch(50f, 40f, 180f);
```

Methods

ColorPlus.ToRgb

Converts color from Lch or Lab to Rgb.

Example

```
Lch myColor = new Lch(50f, 40f, 180f);
Camera.main.backgroundColor = ColorPlus.ToRgb(myColor);
```

ColorPlus.ToLab

Converts color from Lch or Rgb to Lab.

Example

```
Lch myLch = new Lch(50f, 40f, 180f);
Lab myLab = ColorPlus.ToLab(myLch);
```

ColorPlus.ToLch

Converts color from Lab or Rgb to Lch.

Example

```
Lch myLch = ColorPlus.ToLch(Color.red);
```

ColorPlus.ColorDifference

Returns color difference according to CIEDE2000 Delta E formula. Learn more at https://en.wikipedia.org/wiki/Color_difference

Paramaters can be in Rgb, Lab or Lch.

Example

```
float ColorDifference = ColorPlus.ColorDifference(Color.magenta, Color.yellow);
```

ColorPlus.LerpInLab

Linearly interpolates between colors from and to by t in Lab color space.

```
public static Color LerpInLab(Color from, Color to, float t);
public static Color LerpInLab(Lab from, Lab to, float t);
public static Color LerpInLab(Lch from, Lch to, float t);
```

Parameters

from	This color will be returned if t is 0.
to	This color will be returned if t is 1.
t	Float for combining from and to colors.

Example

```
Color lerpedColor = ColorPlus.LerpInLab(Color.magenta, Color.blue, 0.75f);
```

ColorPlus.LerpInLch

Linearly interpolates between colors from and to by t in Lch color space.

```
public static Color LerpInLch(Color from, Color to, float t, LerpMode lerpMode);
public static Color LerpInLch(Lab from, Lab to, float t, LerpMode lerpMode);
public static Color LerpInLch(Lch from, Lch to, float t, LerpMode lerpMode);
```

Properties

from	This color will be returned if t is 0.
to	This color will be returned if t is 1.
t	Float for combining from and to colors.
lerpMode	LerpMode changes how will be the hue component (h) interpolated.

Example

```
Color lerpedColor = ColorPlus.LerpInLch(Color.magenta, Color.blue, 0.75f,
LerpMode.ShorterWay);
```

Enum

LerpMode

LerpMode is used as parameter in ColorPlus.LerpInLch.

Because h component in Lch is angle, it can always be interpolated in two ways. (From 0 to 180 or from 360 to 180.)

Elements

ShorterWay	Always interpolates in the shorter way.
LongerWay	Always interpolates in the longer way.
Clockwise	Always interpolates clockwise.
CounterClockwise	Always interpolates counterclockwise.

For any issues or questions related to this asset contact me at support@nexgea.com