| | [**Overview**](http://docs.google.com/index-overview-summary.html) | [**Project**](http://docs.google.com/project-summary.html) | **Class** | [**Tree**](http://docs.google.com/project-tree.html) | [**Deprecated**](http://docs.google.com/index-deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | | --- | --- | --- | --- | --- | --- | | | ***CarnegieMellonGraphics*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**FRAMES**](http://docs.google.com/index.html)    [**NO FRAMES**](http://docs.google.com/CarnegieMellonGraphics2/Color.html) |
| SUMMARY:  INNER | [FIELD](#30j0zll) | [CONSTR](#1fob9te) | [METHOD](#3znysh7) | DETAIL:  [FIELD](#2et92p0) | [CONSTR](#17dp8vu) | [METHOD](#1ksv4uv) |  |

## **CarnegieMellonGraphics2**

Class Color

   in [CarnegieMellonGraphics.h](http://docs.google.com/CarnegieMellonGraphics.h.html)

class **Color**

The Color class is used by the system to represent color information (of all things). The default color object is simply black, but it is also possible to construct a color by specifying RGB (red, green, blue) and RGBA (red, green, blue, alpha) component values. The alpha channel information is use to carry information about the opacity of the color. It is possible that your renderer may not support this capability, in which case it is simply ignored.

Currently, the internal representation of colors is unsigned characters, and the external representation uses integers. This is not completely satisfactory, because the user can create colors using invalid components. Currently, component values are clamped between 0 and 255 and issues a warning message when an out of bounds color is supplied. In future releases it may be desirable to use an internal and external representation that will more closely match. The internal representation can be changed to use integers, but then the end user would have to use negative numbers to specify some values, which is not entirely intutitive. Floating point values have the same sort of problem.

| **Field Summary** | |
| --- | --- |
| static const Color | [**BLACK**](#tyjcwt) |
| static const Color | [**BLUE**](#3dy6vkm) |
| static const Color | [**GREEN**](#1t3h5sf) |
| static const Color | [**RED**](#4d34og8) |
| static const Color | [**WHITE**](#2s8eyo1) |

| **Constructor Summary** | |
| --- | --- |
| [**Color**](#3rdcrjn)()            Construct an empty color (which is by default, fully opaque black) |
| [**Color**](#lnxbz9)( int red, int green, int blue )            Construct a completely opaque color from three component hues |
| [**Color**](#35nkun2)( int red, int green, int blue, int alpha )            Construct a color from the three component hues and an alpha channel. |

| **Method Summary** | |
| --- | --- |
| int | [**getAlpha**](#44sinio)() const |
| int | [**getBlue**](#z337ya)() const |
| int | [**getGreen**](#1y810tw)() const |
| int | [**getRed**](#2xcytpi)() const |
| bool | [**operator!=**](#3whwml4)( const Color& rhs ) const            Comparison operator for inequality on color objects |
| bool | [**operator==**](#qsh70q)( const Color& rhs ) const            Comparison operator for equality on color objects |
| void | [**setAlpha**](#1pxezwc)( int value ) |
| void | [**setBlue**](#2p2csry)( int value ) |
| void | [**setGreen**](#3o7alnk)( int value ) |
| void | [**setRed**](#ihv636)( int value ) |

| **Field Detail** |
| --- |

### BLACK

public static const Color **BLACK**;

### BLUE

public static const Color **BLUE**;

### GREEN

public static const Color **GREEN**;

### RED

public static const Color **RED**;

### WHITE

public static const Color **WHITE**;

| **Constructor Detail** |
| --- |

### Color

public **Color**();

Construct an empty color (which is by default, fully opaque black)

### Color

public **Color**( int red, int green, int blue );

Construct a completely opaque color from three component hues

### Color

public **Color**( int red, int green, int blue, int alpha );

Construct a color from the three component hues and an alpha channel. This may be used to provide opacity information to the renderer.

| **Method Detail** |
| --- |

### getAlpha

public int **getAlpha**() const;

### getBlue

public int **getBlue**() const;

### getGreen

public int **getGreen**() const;

### getRed

public int **getRed**() const;

### operator!=

public bool **operator!=**( const Color& rhs ) const;

Comparison operator for inequality on color objects

### operator==

public bool **operator==**( const Color& rhs ) const;

Comparison operator for equality on color objects

### setAlpha

public void **setAlpha**( int value );

### setBlue

public void **setBlue**( int value );

### setGreen

public void **setGreen**( int value );

### setRed

public void **setRed**( int value );

| | [**Overview**](http://docs.google.com/index-overview-summary.html) | [**Project**](http://docs.google.com/project-summary.html) | **Class** | [**Tree**](http://docs.google.com/project-tree.html) | [**Deprecated**](http://docs.google.com/index-deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | | --- | --- | --- | --- | --- | --- | | | ***CarnegieMellonGraphics*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
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