# Class java.awt.image.ColorModel

```
java.lang.Object
   |
   +----java.awt.image.ColorModel
```

public class **ColorModel**
extends Object

A class that encapsulates the methods for translating from pixel values to alpha, red, green, and blue color components for an image. This class is abstract.

**See Also:**
>   IndexColorModel, DirectColorModel
>
> **Version:**
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# Variable Index

o **pixel_bits**

# Constructor Index

o **ColorModel**(int)
>    Construct a ColorModel which describes a pixel of the specified number of bits.

# Method Index

o **getAlpha**(int)
>    The subclass must provide a function which provides the alpha color compoment for the specified pixel.
o **getBlue**(int)
>    The subclass must provide a function which provides the blue color compoment for the specified pixel.
o **getGreen**(int)

The subclass must provide a function which provides the green color compoment for the specified pixel.

o **getPixelSize**()

Return the number of bits per pixel described by this ColorModel.

o **getRGB**(int)

Return the color of the pixel in the default RGB color model.

o **getRGBdefault**()

Return a ColorModel which describes the default format for integer RGB values used throughout the AWT image interfaces.

o **getRed**(int)

The subclass must provide a function which provides the red color compoment for the specified pixel.

# Variables

o **pixel_bits**

```
protected int pixel_bits
```

# Constructors

o **ColorModel**

```
public ColorModel(int bits)
```

Construct a ColorModel which describes a pixel of the specified number of bits.

# Methods

o **getRGBdefault**

```
public static ColorModel getRGBdefault()
```

Return a ColorModel which describes the default format for integer RGB values used throughout the AWT image interfaces. The format for the RGB values is an integer with 8 bits each of alpha, red, green, and blue color components ordered correspondingly from the most significant byte to the least significant byte, as in: 0xAARRGGBB

o **getPixelSize**

```
public int getPixelSize()
```

Return the number of bits per pixel described by this ColorModel.

o **getRed**

```
public abstract int getRed(int pixel)
```

The subclass must provide a function which provides the red color compoment for the specified pixel.
**Returns:**
    The red color component ranging from 0 to 255

o **getGreen**

```
public abstract int getGreen(int pixel)
```

The subclass must provide a function which provides the green color compoment for the specified pixel.
**Returns:**
    The green color component ranging from 0 to 255

o **getBlue**

```
public abstract int getBlue(int pixel)
```

The subclass must provide a function which provides the blue color compoment for the specified pixel.
**Returns:**
    The blue color component ranging from 0 to 255

o **getAlpha**

```
public abstract int getAlpha(int pixel)
```

The subclass must provide a function which provides the alpha color compoment for the specified pixel.
**Returns:**
    The alpha transparency value ranging from 0 to 255

o **getRGB**

```
public int getRGB(int pixel)
```

Return the color of the pixel in the default RGB color model.
**See Also:**
    getRGBdefault

_____