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
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Author:
Jim Graham

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.

- **getPixelSize**()
  Return the number of bits per pixel described by this ColorModel.
- **getRGB**(int)
  Return the color of the pixel in the default RGB color model.
- **getRGBdefault**()
  Return a ColorModel which describes the default format for integer RGB values used throughout the AWT image interfaces.
- **getRed**(int)
  The subclass must provide a function which provides the red color compoment for the specified pixel.

Variables

- **pixel_bits**

```
protected int pixel_bits
```

Constructors

- **ColorModel**

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

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

Methods

- **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

- **getPixelSize**

```
public int getPixelSize()
```

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

- **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