| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ICC_ProfileRGB.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/java/awt/color/ICC_ProfileGray.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/color/ProfileDataException.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/color/ICC_ProfileRGB.html)    [**NO FRAMES**](http://docs.google.com/ICC_ProfileRGB.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | CONSTR | [METHOD](#tyjcwt) | DETAIL: [FIELD](#4d34og8) | CONSTR | [METHOD](#26in1rg) |

## **java.awt.color**

Class ICC\_ProfileRGB

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.awt.color.ICC\_Profile](http://docs.google.com/java/awt/color/ICC_Profile.html)  
 **java.awt.color.ICC\_ProfileRGB**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html)

public class **ICC\_ProfileRGB**extends [ICC\_Profile](http://docs.google.com/java/awt/color/ICC_Profile.html)

The ICC\_ProfileRGB class is a subclass of the ICC\_Profile class that represents profiles which meet the following criteria:

* The profile's color space type is RGB.
* The profile includes the redColorantTag, greenColorantTag, blueColorantTag, redTRCTag, greenTRCTag, blueTRCTag, and mediaWhitePointTag tags.

The ICC\_Profile getInstance method will return an ICC\_ProfileRGB object when these conditions are met. Three-component, matrix-based input profiles and RGB display profiles are examples of this type of profile.

This profile class provides color transform matrices and lookup tables that Java or native methods can use directly to optimize color conversion in some cases.

To transform from a device profile color space to the CIEXYZ Profile Connection Space, each device color component is first linearized by a lookup through the corresponding tone reproduction curve (TRC). The resulting linear RGB components are converted to the CIEXYZ PCS using a a 3x3 matrix constructed from the RGB colorants.

  linearR = redTRC[deviceR]  
  
   linearG = greenTRC[deviceG]  
   
   linearB = blueTRC[deviceB]  
   
   \_ \_ \_ \_ \_ \_  
  [ PCSX ] [ redColorantX greenColorantX blueColorantX ] [ linearR ]  
  [ ] [ ] [ ]  
  [ PCSY ] = [ redColorantY greenColorantY blueColorantY ] [ linearG ]  
  [ ] [ ] [ ]  
  [\_ PCSZ \_] [\_ redColorantZ greenColorantZ blueColorantZ \_] [\_ linearB \_]

The inverse transform is performed by converting PCS XYZ components to linear RGB components through the inverse of the above 3x3 matrix, and then converting linear RGB to device RGB through inverses of the TRCs.

**See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#java.awt.color.ICC_ProfileRGB)

| **Field Summary** | |
| --- | --- |
| static int | [**BLUECOMPONENT**](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#BLUECOMPONENT)            Used to get a gamma value or TRC for the blue component. |
| static int | [**GREENCOMPONENT**](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#GREENCOMPONENT)            Used to get a gamma value or TRC for the green component. |
| static int | [**REDCOMPONENT**](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#REDCOMPONENT)            Used to get a gamma value or TRC for the red component. |

| **Fields inherited from class java.awt.color.**[**ICC\_Profile**](http://docs.google.com/java/awt/color/ICC_Profile.html) |
| --- |
| [CLASS\_ABSTRACT](http://docs.google.com/java/awt/color/ICC_Profile.html#CLASS_ABSTRACT), [CLASS\_COLORSPACECONVERSION](http://docs.google.com/java/awt/color/ICC_Profile.html#CLASS_COLORSPACECONVERSION), [CLASS\_DEVICELINK](http://docs.google.com/java/awt/color/ICC_Profile.html#CLASS_DEVICELINK), [CLASS\_DISPLAY](http://docs.google.com/java/awt/color/ICC_Profile.html#CLASS_DISPLAY), [CLASS\_INPUT](http://docs.google.com/java/awt/color/ICC_Profile.html#CLASS_INPUT), [CLASS\_NAMEDCOLOR](http://docs.google.com/java/awt/color/ICC_Profile.html#CLASS_NAMEDCOLOR), [CLASS\_OUTPUT](http://docs.google.com/java/awt/color/ICC_Profile.html#CLASS_OUTPUT), [icAbsoluteColorimetric](http://docs.google.com/java/awt/color/ICC_Profile.html#icAbsoluteColorimetric), [icCurveCount](http://docs.google.com/java/awt/color/ICC_Profile.html#icCurveCount), [icCurveData](http://docs.google.com/java/awt/color/ICC_Profile.html#icCurveData), [icHdrAttributes](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrAttributes), [icHdrCmmId](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrCmmId), [icHdrColorSpace](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrColorSpace), [icHdrCreator](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrCreator), [icHdrDate](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrDate), [icHdrDeviceClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrDeviceClass), [icHdrFlags](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrFlags), [icHdrIlluminant](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrIlluminant), [icHdrMagic](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrMagic), [icHdrManufacturer](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrManufacturer), [icHdrModel](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrModel), [icHdrPcs](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrPcs), [icHdrPlatform](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrPlatform), [icHdrProfileID](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrProfileID), [icHdrRenderingIntent](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrRenderingIntent), [icHdrSize](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrSize), [icHdrVersion](http://docs.google.com/java/awt/color/ICC_Profile.html#icHdrVersion), [icICCAbsoluteColorimetric](http://docs.google.com/java/awt/color/ICC_Profile.html#icICCAbsoluteColorimetric), [icMediaRelativeColorimetric](http://docs.google.com/java/awt/color/ICC_Profile.html#icMediaRelativeColorimetric), [icPerceptual](http://docs.google.com/java/awt/color/ICC_Profile.html#icPerceptual), [icRelativeColorimetric](http://docs.google.com/java/awt/color/ICC_Profile.html#icRelativeColorimetric), [icSaturation](http://docs.google.com/java/awt/color/ICC_Profile.html#icSaturation), [icSigAbstractClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigAbstractClass), [icSigAToB0Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigAToB0Tag), [icSigAToB1Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigAToB1Tag), [icSigAToB2Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigAToB2Tag), [icSigBlueColorantTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigBlueColorantTag), [icSigBlueMatrixColumnTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigBlueMatrixColumnTag), [icSigBlueTRCTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigBlueTRCTag), [icSigBToA0Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigBToA0Tag), [icSigBToA1Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigBToA1Tag), [icSigBToA2Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigBToA2Tag), [icSigCalibrationDateTimeTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigCalibrationDateTimeTag), [icSigCharTargetTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigCharTargetTag), [icSigChromaticAdaptationTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigChromaticAdaptationTag), [icSigChromaticityTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigChromaticityTag), [icSigCmyData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigCmyData), [icSigCmykData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigCmykData), [icSigColorantOrderTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigColorantOrderTag), [icSigColorantTableTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigColorantTableTag), [icSigColorSpaceClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigColorSpaceClass), [icSigCopyrightTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigCopyrightTag), [icSigCrdInfoTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigCrdInfoTag), [icSigDeviceMfgDescTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigDeviceMfgDescTag), [icSigDeviceModelDescTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigDeviceModelDescTag), [icSigDeviceSettingsTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigDeviceSettingsTag), [icSigDisplayClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigDisplayClass), [icSigGamutTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigGamutTag), [icSigGrayData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigGrayData), [icSigGrayTRCTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigGrayTRCTag), [icSigGreenColorantTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigGreenColorantTag), [icSigGreenMatrixColumnTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigGreenMatrixColumnTag), [icSigGreenTRCTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigGreenTRCTag), [icSigHead](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigHead), [icSigHlsData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigHlsData), [icSigHsvData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigHsvData), [icSigInputClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigInputClass), [icSigLabData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigLabData), [icSigLinkClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigLinkClass), [icSigLuminanceTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigLuminanceTag), [icSigLuvData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigLuvData), [icSigMeasurementTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigMeasurementTag), [icSigMediaBlackPointTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigMediaBlackPointTag), [icSigMediaWhitePointTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigMediaWhitePointTag), [icSigNamedColor2Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigNamedColor2Tag), [icSigNamedColorClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigNamedColorClass), [icSigOutputClass](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigOutputClass), [icSigOutputResponseTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigOutputResponseTag), [icSigPreview0Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPreview0Tag), [icSigPreview1Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPreview1Tag), [icSigPreview2Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPreview2Tag), [icSigProfileDescriptionTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigProfileDescriptionTag), [icSigProfileSequenceDescTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigProfileSequenceDescTag), [icSigPs2CRD0Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPs2CRD0Tag), [icSigPs2CRD1Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPs2CRD1Tag), [icSigPs2CRD2Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPs2CRD2Tag), [icSigPs2CRD3Tag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPs2CRD3Tag), [icSigPs2CSATag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPs2CSATag), [icSigPs2RenderingIntentTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigPs2RenderingIntentTag), [icSigRedColorantTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigRedColorantTag), [icSigRedMatrixColumnTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigRedMatrixColumnTag), [icSigRedTRCTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigRedTRCTag), [icSigRgbData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigRgbData), [icSigScreeningDescTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigScreeningDescTag), [icSigScreeningTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigScreeningTag), [icSigSpace2CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace2CLR), [icSigSpace3CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace3CLR), [icSigSpace4CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace4CLR), [icSigSpace5CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace5CLR), [icSigSpace6CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace6CLR), [icSigSpace7CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace7CLR), [icSigSpace8CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace8CLR), [icSigSpace9CLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpace9CLR), [icSigSpaceACLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpaceACLR), [icSigSpaceBCLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpaceBCLR), [icSigSpaceCCLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpaceCCLR), [icSigSpaceDCLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpaceDCLR), [icSigSpaceECLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpaceECLR), [icSigSpaceFCLR](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigSpaceFCLR), [icSigTechnologyTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigTechnologyTag), [icSigUcrBgTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigUcrBgTag), [icSigViewingCondDescTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigViewingCondDescTag), [icSigViewingConditionsTag](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigViewingConditionsTag), [icSigXYZData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigXYZData), [icSigYCbCrData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigYCbCrData), [icSigYxyData](http://docs.google.com/java/awt/color/ICC_Profile.html#icSigYxyData), [icTagReserved](http://docs.google.com/java/awt/color/ICC_Profile.html#icTagReserved), [icTagType](http://docs.google.com/java/awt/color/ICC_Profile.html#icTagType), [icXYZNumberX](http://docs.google.com/java/awt/color/ICC_Profile.html#icXYZNumberX) |

| **Method Summary** | |
| --- | --- |
| float | [**getGamma**](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#getGamma(int))(int component)            Returns a gamma value representing the tone reproduction curve (TRC) for a particular component. |
| float[][] | [**getMatrix**](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#getMatrix())()            Returns a 3x3 float matrix constructed from the X, Y, and Z components of the profile's redColorantTag, greenColorantTag, and blueColorantTag. |
| float[] | [**getMediaWhitePoint**](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#getMediaWhitePoint())()            Returns an array that contains the components of the profile's mediaWhitePointTag. |
| short[] | [**getTRC**](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#getTRC(int))(int component)            Returns the TRC for a particular component as an array. |

| **Methods inherited from class java.awt.color.**[**ICC\_Profile**](http://docs.google.com/java/awt/color/ICC_Profile.html) |
| --- |
| [finalize](http://docs.google.com/java/awt/color/ICC_Profile.html#finalize()), [getColorSpaceType](http://docs.google.com/java/awt/color/ICC_Profile.html#getColorSpaceType()), [getData](http://docs.google.com/java/awt/color/ICC_Profile.html#getData()), [getData](http://docs.google.com/java/awt/color/ICC_Profile.html#getData(int)), [getInstance](http://docs.google.com/java/awt/color/ICC_Profile.html#getInstance(byte%5B%5D)), [getInstance](http://docs.google.com/java/awt/color/ICC_Profile.html#getInstance(java.io.InputStream)), [getInstance](http://docs.google.com/java/awt/color/ICC_Profile.html#getInstance(int)), [getInstance](http://docs.google.com/java/awt/color/ICC_Profile.html#getInstance(java.lang.String)), [getMajorVersion](http://docs.google.com/java/awt/color/ICC_Profile.html#getMajorVersion()), [getMinorVersion](http://docs.google.com/java/awt/color/ICC_Profile.html#getMinorVersion()), [getNumComponents](http://docs.google.com/java/awt/color/ICC_Profile.html#getNumComponents()), [getPCSType](http://docs.google.com/java/awt/color/ICC_Profile.html#getPCSType()), [getProfileClass](http://docs.google.com/java/awt/color/ICC_Profile.html#getProfileClass()), [readResolve](http://docs.google.com/java/awt/color/ICC_Profile.html#readResolve()), [setData](http://docs.google.com/java/awt/color/ICC_Profile.html#setData(int,%20byte%5B%5D)), [write](http://docs.google.com/java/awt/color/ICC_Profile.html#write(java.io.OutputStream)), [write](http://docs.google.com/java/awt/color/ICC_Profile.html#write(java.lang.String)) |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

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

### REDCOMPONENT

public static final int **REDCOMPONENT**

Used to get a gamma value or TRC for the red component.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.color.ICC_ProfileRGB.REDCOMPONENT)

### GREENCOMPONENT

public static final int **GREENCOMPONENT**

Used to get a gamma value or TRC for the green component.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.color.ICC_ProfileRGB.GREENCOMPONENT)

### BLUECOMPONENT

public static final int **BLUECOMPONENT**

Used to get a gamma value or TRC for the blue component.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.color.ICC_ProfileRGB.BLUECOMPONENT)

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

### getMediaWhitePoint

public float[] **getMediaWhitePoint**()

Returns an array that contains the components of the profile's mediaWhitePointTag.

**Returns:**A 3-element float array containing the x, y, and z components of the profile's mediaWhitePointTag.

### getMatrix

public float[][] **getMatrix**()

Returns a 3x3 float matrix constructed from the X, Y, and Z components of the profile's redColorantTag, greenColorantTag, and blueColorantTag.

This matrix can be used for color transforms in the forward direction of the profile--from the profile color space to the CIEXYZ PCS.

**Returns:**A 3x3 float array that contains the x, y, and z components of the profile's redColorantTag, greenColorantTag, and blueColorantTag.

### getGamma

public float **getGamma**(int component)

Returns a gamma value representing the tone reproduction curve (TRC) for a particular component. The component parameter must be one of REDCOMPONENT, GREENCOMPONENT, or BLUECOMPONENT.

If the profile represents the TRC for the corresponding component as a table rather than a single gamma value, an exception is thrown. In this case the actual table can be obtained through the [getTRC(int)](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#getTRC(int)) method. When using a gamma value, the linear component (R, G, or B) is computed as follows:

  gamma  
   linearComponent = deviceComponent

**Parameters:**component - The ICC\_ProfileRGB constant that represents the component whose TRC you want to retrieve **Returns:**the gamma value as a float. **Throws:** [ProfileDataException](http://docs.google.com/java/awt/color/ProfileDataException.html) - if the profile does not specify the corresponding TRC as a single gamma value.

### getTRC

public short[] **getTRC**(int component)

Returns the TRC for a particular component as an array. Component must be REDCOMPONENT, GREENCOMPONENT, or BLUECOMPONENT. Otherwise the returned array represents a lookup table where the input component value is conceptually in the range [0.0, 1.0]. Value 0.0 maps to array index 0 and value 1.0 maps to array index length-1. Interpolation might be used to generate output values for input values that do not map exactly to an index in the array. Output values also map linearly to the range [0.0, 1.0]. Value 0.0 is represented by an array value of 0x0000 and value 1.0 by 0xFFFF. In other words, the values are really unsigned short values even though they are returned in a short array. If the profile has specified the corresponding TRC as linear (gamma = 1.0) or as a simple gamma value, this method throws an exception. In this case, the [getGamma(int)](http://docs.google.com/java/awt/color/ICC_ProfileRGB.html#getGamma(int)) method should be used to get the gamma value.

**Parameters:**component - The ICC\_ProfileRGB constant that represents the component whose TRC you want to retrieve: REDCOMPONENT, GREENCOMPONENT, or BLUECOMPONENT. **Returns:**a short array representing the TRC. **Throws:** [ProfileDataException](http://docs.google.com/java/awt/color/ProfileDataException.html) - if the profile does not specify the corresponding TRC as a table.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ICC_ProfileRGB.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/java/awt/color/ICC_ProfileGray.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/color/ProfileDataException.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/color/ICC_ProfileRGB.html)    [**NO FRAMES**](http://docs.google.com/ICC_ProfileRGB.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | CONSTR | [METHOD](#tyjcwt) | DETAIL: [FIELD](#4d34og8) | CONSTR | [METHOD](#26in1rg) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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