

## RGBColor

### RGBColor

The RGBColor structure is used as a substructure usually to store various color settings.

```
Structure RGBColor
    UInt16 red
    UInt16 green
    UInt16 blue
EndStructure
```

## RGBAColor

The RGBAColor structure is the same as RGBColor but with an alpha field to represent translucency.

```
Structure RGBAColor
    UInt16 red
    UInt16 green
    UInt16 blue
    UInt16 alpha
EndStructure
```

## rightx

**rightx (waveName)**

The rightx function returns the X value corresponding to point N of the named 1D wave of length N.

### Details

Note that the point numbers in a wave run from 0 to N-1 so there is no point with this X value. To get the X value of the last point in a wave (point N-1), use the following:

```
pnt2x(waveName, numpnts(waveName)-1) // N = numpnts(waveName)
```

which is more accurate than:

```
rightx(waveName) - deltax(waveName)
```

The rightx function is not multidimensional aware. See **Analysis on Multidimensional Waves** on page II-95 for details. The equivalent information for any dimension can be calculated this way:

*IndexN* = DimSize(*wave, dim*) \* DimDelta(*wave, dim*) + DimOffset(*wave, dim*)

Here *IndexN* is the value of the scaled dimension index corresponding to element N of the dimension *dim* in a wave named *wave* that has N elements in that dimension.

### See Also

The **deltax** and **leftx** functions, also the **pnt2x** and **numpnts** functions.

For an explanation of waves and dimension scaling, see **Changing Dimension and Data Scaling** on page II-68.

For multidimensional waves, see **DimDelta**, **DimOffset**, and **DimSize**.

## root

**root [ :*dataFolderName* [ :*dataFolderName* [ :... ] ] [ :*objectName*] ]**

Igor's data folder hierarchy starts with the root folder as its basis. The root data folder always exists and it contains all other objects (waves, variables, strings, and data folders). By default, the root data folder is the current data folder in a new experiment. In commands, root is used as part of a path specifying the location of a data object in the folder hierarchy.

### See Also

Chapter II-8, **Data Folders**.

## Rotate

**Rotate *rotPoints*, *waveName* [, *waveName*]...**

The Rotate operation rotates the Y values of waves in wavelist by *rotPoints* points.

### Parameters

If *rotPoints* is positive then values are rotated from the start of the wave toward the end and *rotPoints* values from the end of a wave wrap around to the start of the wave.