Image Instance Names

Igor identifies an image plot by the name of the wave providing Z values (the wave selected in the Z Wave list of the Image Plot dialogs). This "image instance name" is used in commands that modify the image plot.

In this example the image instance name is "zw":

```
Display; AppendImage zw              // new image plot
ModifyImage zw ctab={*,*,BlueHot}    // change color table
```

In the unusual case that a graph contains two image plots of the same data, to show different subranges of the data side-by-side,for example, an instance number must be appended to the name to modify the second plot:

```
Display; AppendImage zw; AppendImage/R/T zw  // two image plots
ModifyImage zw ctab={*,*,RedWhiteBlue}       // change first plot
ModifyImage zw#1 ctab={*,*,BlueHot}          // change second plot
```

The Modify Image Appearance dialog generates the correct image instance name automatically. Image instance names work much the same way wave instance names for traces in a graph do. See **Instance Notation** on page IV-20.

The **ImageNameList** function (see page V-397) returns a string list of image instance names. Each name corresponds to one image plot in the graph. The **ImageInfo** function (see page V-380) returns information about a particular named image plot.

ImageNameList returns strings, but ModifyImage uses names. The $ operator turns a string into a name. For example:

```
Function SetFirstImageToRainbow(graphName)
   String graphName
   String imageInstNames = ImageNameList(graphName, ";")
   String firstImageName = StringFromList(0,imageInstNames) // Name in a string
   if (strlen(firstImageName) > 0)
      // $ converts string to name
      ModifyImage/W=$graphName $firstImageName ctab={,,Rainbow}
   endif
End
```

Image Preferences

You can change the default appearance of image plots by capturing preferences from a prototype graph containing image plots. Create a graph containing an image plot with the settings you use most often. Then choose Capture Graph Prefs from the Graph menu. Select the Image Plots category, and click Capture Prefs.

Preferences are normally in effect only for *manual* operations, not for automatic operations from Igor procedures. Preferences are discussed in more detail in Chapter III-18, **Preferences**.

The Image Plots category includes both Image Appearance settings and axis settings.

Image Appearance Preferences

The captured Image Appearance settings are automatically applied to an image plot when it is first created, provided preferences are turned on. They are also used to preset the Modify Image Appearance dialog when it is invoked as a subdialog of the New Image Plot dialog.

If you capture the Image Plot preferences from a graph with more than one image plot, the first image plot appended to a graph gets the settings from the image first appended to the prototype graph. The second image plot appended to a graph gets the settings from the second image plot appended to the prototype graph, etc. This is similar to the way XY plot wave styles work.