Category Plot Commands

The **Display** operation that creates a category plot is the same Display operation that creates an XY plo t. When you use a text wave for the X wave, Igor creates a category plot. When you use a numeric wave for tthe X wave, Igor creates an XY plot. The same applies to the **AppendToGraph** operation.

You can control the gap between categories and the gap between bars within a single category using the ModifyGraph operation with the barGap and catGap keywords. You can create a stacked category plot using the ModifyGraph toMode keyword. See Bar and Category Gaps.

Combining Category Plots and XY Plots

You can have ordinary XY plots and category plots in the same graph window. However, once an axis has been used as either numeric or category, it is not usable as the other type.

For example, if you tried to append an ordinary XY plot to the graph shown above, you would find that the bottom (category) axis was not available in the Axis pop-up menu. If you try to append data to an existing category plot using a different text wave as the category wave, the new category wave is ignored.

The solution to these problems is to create a new axis using the Append Traces to Graph dialog or the Append Category Plot dialog.

Category Plot Using Dimension Labels

An alternative to using a text wave to create a category plot is to use the dimension labels from the Y wave. This feature was added in Igor Pro 8.00.

The easiest way to create the dimension labels is to edit the dimension labels in a table (see **Showing Dimension Labels** on page II-235). This example shows how to programmatically make a category plot using dimension labels:

```
Function DemoCategoryPlotUsingDimensionLabels()
   Make/O control={100,300,50,500}, test={50,200,70,300}
   SetDimLabel 0, 0, '15 min', control
   SetDimLabel 0, 1, '1 hour', control
   SetDimLabel 0, 2, '6 hrs', control
   SetDimLabel 0, 3, '24 hrs', control
   Display /W=(35,45,430,253) control, test vs '_labels_'
   ModifyGraph hbFill(control)=5,hbFill(test)=7
   SetAxis/A/E=1 left
   Legend
End
```

The _labels_ keyword must be enclosed in single quotes because it has the form of a liberal name and it is used in a place where a wave name is expected.

Using the Y wave's dimension labels is convenient for category plots having just one Y wave because it keeps the category labels and the numeric Y data in one place. If you are making the graph manually, you can enter the labels in a table, instead of executing a separate command for each label.

When you have more than one Y wave, the first trace added to a category axis controls the category labels. If you remove the first trace or change the order of traces, the labels may change or become blank. You can prevent this by setting the dimension labels for all the Y waves.

Modifying a Category Plot

Because category plots are created in ordinary graph windows, you can change the appearance of the category plot using the same methods you use for XY plots. For example, you can modify the bar colors and line widths using the Modify Trace Appearance dialog. For information on traces, XY plots and graphs, see **Modifying Traces** on page II-290.