



More details about these modes can be found in **Grouping, Stacking and Adding Modes** on page II-296.

## Numeric Categories

You can create category plots with numeric categories by creating a text wave from your numeric category data. Create a text wave containing the numeric values by using the `num2str` function. For example, if we have years in a numeric wave:

```
Make years={1993,1995,1996,1997}
```

we can create an equivalent text wave:

```
Make/T/N=4 textYears= num2str(years)
```

Then create your category plot using `textYears`:

```
Display ydata vs textYears // vs 1993, 1995, 1996, 1997 (as text)
```

## Combining Numeric and Category Traces

Normally when you create a category plot, you can append only another category trace (a numeric wave plotted versus a text wave) to that plot. In rare cases, you may want to add a numeric trace to a category plot. You can do this using the `/NCAT` flag. Here is an example:

```
Make/O/T catx = {"cat0", "cat1", "cat2"}
Make/O caty = {1, 3, 2}
Display caty vs catx
SetAxis/A/E=1 left

// Plot simulated original data for a category
Make/N=10/O catlover = gnoise(1) + 1.5
SetScale/P x, 1.5, 1e-5, catlover // Delta x can not be zero
AppendToGraph/NCAT catlover
ModifyGraph mode(catlover)=3, marker(catlover)=19, rgb(catlover)=(0,0,65535)
```

The `/NCAT` flag, used with `AppendToGraph`, tells Igor to allow adding a numeric trace to a category plot. This flag was added in Igor Pro 6.20.

In Igor Pro 6.37 or later, the `Display` operation also supports the `/NCAT` flag. This allows you to create a numeric plot and then append a category trace.

## Category Plot Pitfalls

You may encounter situations in which the category plot doesn't look like you expect it to.

### X Scaling Moves Bars

Category plots position the bars using the X scaling of the value (numeric) waves. The X scaling of the category (text) wave is completely ignored. It is usually best if you leave the X scaling of the category plot