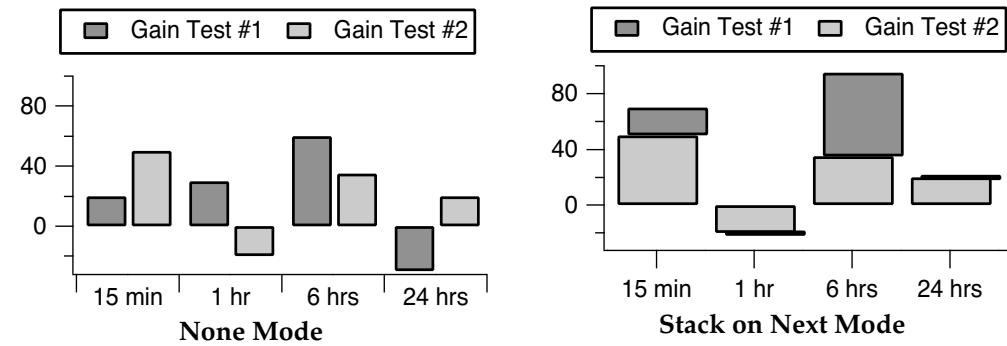


Stacked Bar Charts

You can stack one bar on top of the next by choosing one of several grouping modes in the Modify Trace Appearance dialog which you can invoke by double-clicking a bar. The Grouping pop-up menu in the dialog shows the available modes. The choices are:

Mode	Mode Name	Purpose
-1	Keep with next	For special effects
0	None	Side-by-side bars (default)
1	Draw to next	Overlapping bars
2	Add to next	Arithmetically combined bars
3	Stack on next	Stacked bars

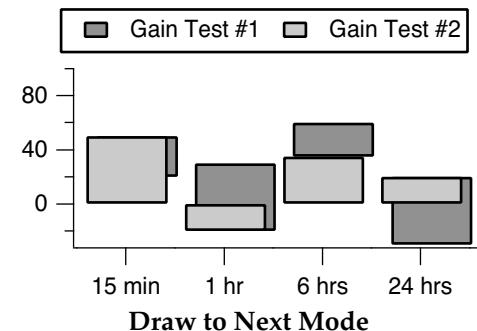
For most uses, you will use the **None** and “Stack on next” modes which produce the familiar bar and stacked bar chart:



In all of the Stacked Bar Chart examples that follow, the stacking mode is applied to the Gain Test #1 bar and Gain Test #2 is the “next” bar.

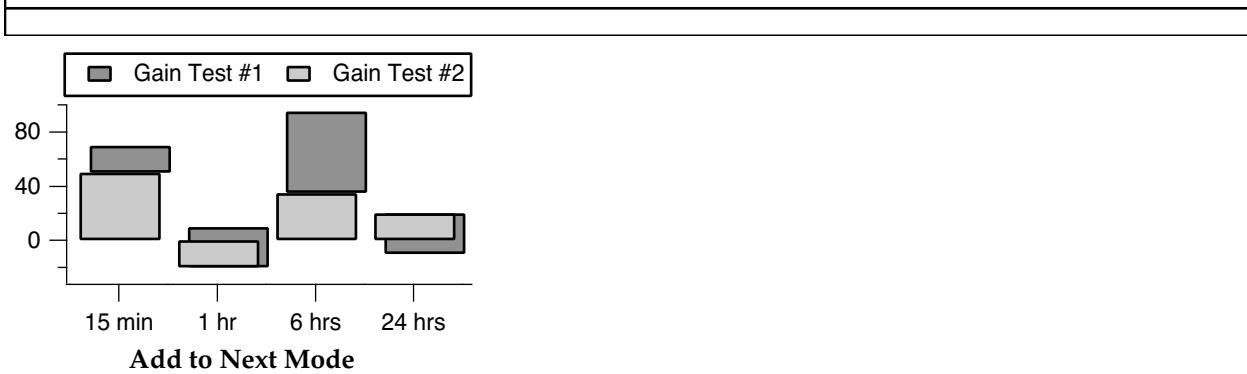
We have offset Gain Test #1 horizontally by 0.1 so that you can see what is being drawn behind Gain Test #2.

Choosing “**Draw to next**” causes the current bar to be in the same horizontal position as the next bar and to be drawn from the Y value of this trace to the Y value of the next trace.



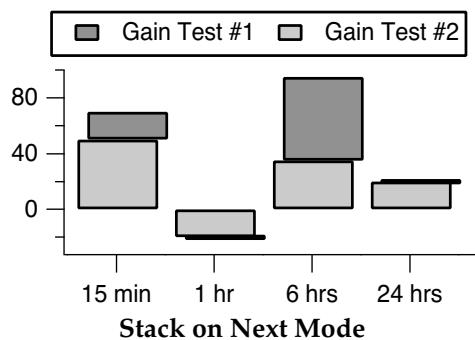
If the next bar is taller than the current bar then the current bar will not be visible because it will be hidden by the next bar. The result is as if the current bar is drawn behind the next bar, as is done when bars are displayed using a common numeric X axis.

“**Add to next**” is similar to “Draw to next” except the Y values of the current bar are added to the Y values of the next bar(s) before plotting.



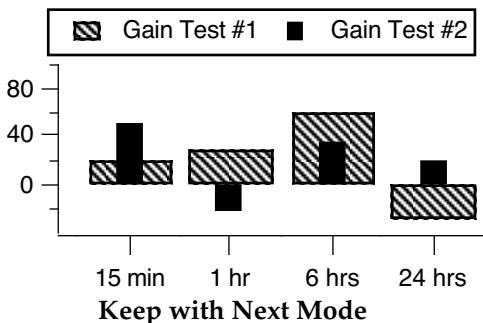
If the current Y value is negative and the next is positive then the final position will be shorter than the next bar, as it is here for the 24 hrs bar.

“Stack on next” is similar to “Add to next” except bars are allowed only to grow, not shrink.



Negative values act like zero when added to a positive next trace (see the 24 hrs bar) and positive values act like zero when added to a negative next trace (see the 1 hr bar). Zero height bars are drawn as a horizontal line. Normally the values are all positive, and the bars stack additively, like the 15 min and 6 hrs bars.

“Keep with next” creates special effects in category plots. Use it when you want the current trace to be plotted in the same horizontal slot as the next but you don’t want to affect the length of the current bar. For example, if the current trace is a bar and the next is a marker then the marker will be plotted on top of the bar. Here we set the Gain Test #2 wave to Lines from Zero mode, using a line width of 10 points.



“Keep with next” mode is also useful for category plots that don’t use bars; you can keep markers from different traces vertically aligned within the same category: