

Chapter II-13 — Graphs

You can enter [] or [*] to indicate the entire range of the dimension, or [start, stop] for a contiguous subrange, or [start, stop; inc] where start, stop, and inc are dimension indices. Entering * for stop is the same as entering the index of the last element in the dimension.

For example:

```
Make/N=100 w1D = p
Display w1D[0,*;10] // Display every tenth point
ModifyGraph mode=3, marker=19

Make/N=(10,8) w2D = p + 10*q
Display w2D[0][0,*;2] // Display every other column of row 0
ModifyGraph mode=3, marker=19
```

The subrange syntax rules can be restated as:

1. Only one dimension specifier can contain the range to be displayed.

Legal syntax for range is: [] or [*] for an entire dimension

[start, stop] for a subrange

stop may be *

stop must be \geq start

The range is inclusive

[start, stop; inc] for a subrange with a positive increment

2. Other dimensions must contain a single numeric index or dimension label using % syntax.

Legal syntax for nonrange [index]
specifier is: [%label]

3. Unspecified higher dimensions are treated as if [0] was specified.

For non-XY plots, the X-axis label uses the dimension label (if any) for the active dimension (the one with a range).

When cursors or tags are placed on a subranged trace, the point number used is the virtual point number as if the subrange had been extracted into a 1D wave.

Subrange syntax is also supported for waves used with error bars and with color, marker size and marker number as f(Z). These correspond to the **ErrorBars** operation (page V-199) with the wave keyword and to the **ModifyGraph (traces)** operation (page V-613) with the zmrkSize, zmrkNum, and zColor keywords.

Subrange Display Limitations

In category plots, the category wave (the text wave) may not be subranged. Waves used to specify text using ModifyGraph textMarker mode may not be subranged.

Subranged traces may not be edited using the draw tools (such as: option click on the edit poly icon in the tool palette on a graph).

Waterfall plots may not use subranges.

When multiple subranges of the same wave are used in a graph, they are distinguished only using instance notation and not using the subrange syntax. For example, given display w[][], w[][], you must use ModifyGraph mode(w#0)=1, mode(w#1)=2 and not ModifyGraph mode(w[][],0)=1, mode(w[][],1)=2 as you might expect.

The trace instance and subrange used to plot given trace is included in trace info information. See **Identifying a Trace** on page II-321.