Display

Display [***flags***] [***waveName*** [**,** ***waveName***]…[**vs** ***xwaveName***]]
[**as** ***titleStr***]

The Display operation creates a new graph window or subwindow, and appends the named waves, if any. Waves are displayed as 1D traces.

By default, waves are plotted versus the left and bottom axes. Use the /L, /B, /R, and /T flags to plot the waves against other axes.

Parameters

Up to 100 *waveName*s may be specified, subject to the 2500 byte command line length limit. If no wave names are specified, a blank graph is created and the axis flags are ignored.

If you specify "vs *xwaveName*", the Y values of the named waves are plotted versus the Y values of *xwaveName*. If you don't specify "vs *xwaveName*", the Y values of each *waveName* are plotted versus its own X values.

If *xwaveName* is a text wave or the special keyword '_labels_', the resulting plot is a category plot. Each element of *waveName* is plotted by default in bars mode (`ModifyGraph mode=5`) against a category labeled with the text of the corresponding element of *xwaveName* or the text of the dimension labels of the first Y wave..

The Y waves for a category plot should have point scaling (see **Changing Dimension and Data Scaling** on page II-68); this is how category plots were intended to work. However, if all the Y waves have the same scaling, it will work correctly.

titleStr is a string expression containing the graph's title. If not specified, Igor will provide one which identifies the waves displayed in the graph.

Subsets of data, including individual rows or columns from a matrix, may be specified using **Subrange Display Syntax** on page II-321.

You can provide a custom name for a trace by appending /TN=traceName to the waveName specification. This is useful when displaying waves with the same name but from different data folders. See **User-defined Trace Names** on page IV-89 for more information.

Flags

/B[=*axisName*] Plots X coordinates versus the standard or named bottom axis.

/FG=(*gLeft*, *gTop*, *gRight*, *gBottom*)

Specifies the frame guide to which the outer frame of the subwindow is attached inside the host window.

The standard frame guide names are `FL`, `FR`, `FT`, and `FB`, for the left, right, top, and bottom frame guides, respectively, or user-defined guide names as defined by the host. Use `*` to specify a default guide name.

Guides may override the numeric positioning set by /W.

/HIDE=*h* Hides (h = 1) or shows (h = 0, default) the window.

/HOST=*hcSpec* Embeds the new graph in the host window or subwindow specified by *hcSpec*.

When identifying a subwindow with *hcSpec*, see **Subwindow Syntax** on page III-92 for details on forming the window hierarchy.

/I Specifies that /W coordinates are in inches.

/K=*k* Specifies window behavior when the user attempts to close it.

k=0: Normal with dialog (default).
k=1: Kills with no dialog.
k=2: Disables killing.
k=3: Hides the window.

If you use /K=2 or /K=3, you can still kill the window using the **KillWindow** operation.

/L[=*axisName*] Plots Y coordinates versus the standard or named left axis.

/M Specifies that /W coordinates are in centimeters.

/N=*name* Requests that the created graph have this name, if it is not in use. If it is in use, then *name*0, *name*1, etc. are tried until an unused window name is found. In a function or macro, S_name is set to the chosen graph name.

/NCAT In Igor Pro 6.37 or later, allows subsequent appending of a category trace to a numeric plot. See for details.

/PG=(*gLeft*, *gTop*, *gRight*, *gBottom*)

Specifies the inner plot rectangle of the graph subwindow inside its host window.

The standard plot rectangle guide names are `PL`, `PR`, `PT`, and `PB`, for the left, right, top, and bottom plot rectangle guides, respectively, or user-defined guide names as defined by the host. Use `*` to specify a default guide name.

Guides may override the numeric positioning set by /W.

/R[=*axisName*] Plots Y coordinates versus the standard or named right axis.

/T[=*axisName*] Plots Y coordinates versus the standard or named top axis.

/TN=*traceName* Allows you to provide a custom trace name for a trace. This is useful when displaying waves with the same name but from different data folders. See **User-defined Trace Names** on page IV-89 for details.

/W=(*left*,*top*,*right*,*bottom*)

Gives the graph a specific location and size on the screen. Coordinates for /W are in points unless /I or /M are specified before /W.

When used with the /HOST flag, the specified location coordinates of the sides can have one of two possible meanings:

1: When all values are less than 1, coordinates are assumed to be fractional relative to the host frame size.

2: When any value is greater than 1, coordinates are taken to be fixed locations measured in points, or **Control Panel Units** for control panel hosts, relative to the top left corner of the host frame.

When the subwindow position is fully specified using guides (using the /HOST, /FG, or /PG flags), the /W flag may still be used although it is not needed.

Details

If /N is not used, Display automatically assigns to the graph a name of the form "Graph*n*", where *n* is some integer. In a function or macro, the assigned name is stored in the S_name string. This is the name you can use to refer to the graph from a procedure. Use the **RenameWindow** operation to rename the graph.

Examples

To make a contour plot, use:

```
Display; AppendMatrixContour waveName
```

or

```
Display; AppendXYZContour waveName
```

To display an image, use:

```
Display; AppendImage waveName
```

or

```
NewImage waveName
```

See Also

The **AppendToGraph** operation.

The operations **AppendImage**, **AppendMatrixContour**, **AppendXYZContour**, and **NewImage**. For more information on Category Plots, see Chapter II-14, **Category Plots**.

The operations **ModifyGraph**, **ModifyContour**, and **ModifyImage** for changing the characteristics of graphs.