The *type* parameter can be either a code as documented for **WaveType** or can be 0x100 to create a data folder reference wave or 0x200 to create a wave reference wave.

You can redimension free waves as desired but, for maximum efficiency, you should create the wave with the desired type and total number of points and then use the /E=1 flag with **Redimension** to simply reshape without moving data.

A free wave is automatically discarded when the last reference to it disappears.

**See Also**
**Free Waves** on page IV-91, **Make**, **Duplicate**.

# NewGizmo

**NewGizmo** [*flags*]

The NewGizmo operation creates a new Gizmo display window.

Documentation for the NewGizmo operation is available in the Igor online help files only. In Igor, execute:

```
DisplayHelpTopic "NewGizmo"
```

# NewImage

**NewImage** [*flags*] *matrix*

The NewImage operation creates a new image graph much like "Display;AppendImage matrix" except the graph is prepared using a style more appropriate for images. Rather than using preferences, NewImage provides several discrete styles to choose from.

**Parameters**
*matrix* is usually an MxN matrix containing image data. See **AppendImage** for details.

**Flags**

| | |
|---|---|
| /F | By default, the image is flipped vertically to correspond to normal image orientation. if /F is present then the image is not flipped. |
| /G=*g* | Controls treatment of three-plane images as direct (RGB) color. |

    *g*=1:   Suppresses the autodetection of three-plane images as direct (RGB) color.

    *g*=1:   Same as no /G flag (default).

| | |
|---|---|
| /HIDE=*h* | Hides (h = 1) or shows (h = 0, default) the window. |
| /HOST=*hcSpec* | Embeds the new image plot 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. |
| /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.

| | |
|---|---|
| /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. |