

**Flags**

The flags define the type of data to be stored in the FIFO channel:

|                 |   |
|-----------------|---|
| /B              | 8-bit signed integer. Unsigned if /U is present.  |
| /C              | Complex.  |
| /D              | Double precision IEEE floating point.             |
| /I              | 32-bit signed integer. Unsigned if /U is present. |
| /S              | Single precision IEEE floating point (default).   |
| /U              | Unsigned integer data.                            |
| /W              | 16-bit signed integer. Unsigned if /U is present. |
| /Y= <i>type</i> | Specifies wave data type. See details below.      |

**Wave Data Types**

As a replacement for the above number type flags you can use /Y=*numType* to set the number type as an integer code. See the **WaveType** function for code values. Do not use /Y in combination with other type flags.

**Details**

You can not invoke NewFIFOChan while the named FIFO is running.

If you provide a value for *vectPnts*, you will create a channel capable of holding a vector of data rather than just a single data value. When such a channel is used in a Chart, it is displayed as an image using one of the built-in color tables.

Igor scales values in the FIFO channel before displaying them in a chart or transferring them to a wave as follows:

$$\text{scaled\_value} = (\text{FIFO\_value} - \text{offset}) * \text{gain}$$

Igor uses the *plusFS* and *minusFS* parameters (plus and minus full scale) to set the default display scaling for charts.

The *unitsStr* parameter is limited to a maximum of three bytes.

When you transfer a channel's data to a wave, using the **FIFO2Wave** operation, Igor stores the *plusFS* and *minusFS* values and the *unitsStr* in the wave's Y scaling.

**See Also**

FIFOs are used for data acquisition. See **FIFOs and Charts** on page IV-313 and the **NewFIFO** and **FIFO2Wave** operations for more information.

The **Chart** operation for displaying FIFO data.

**NewFreeAxis**

**NewFreeAxis** [*flags*] *axisName*

The NewFreeAxis operation creates a new free axis that has no controlling wave.

**Parameters**

*axisName* is the name for the new free axis.