

The X scaling of the wave is used only to locate the points nearest to $x=x1$ and $x=x2$. To use point indexing, replace $x1$ with "pnt2x(waveName,pointNumber1)", and a similar expression for $x2$.

If the points nearest to $x1$ or $x2$ are outside the point range of 0 to numpts(waveName)-1, median limits them to the nearest of point 0 or point numpts(waveName)-1.

If the wave contains NaNs they are skipped.

The function returns NaN if the input wave has zero non-NaN points.

See Also

mean, Variance, StatsMedian, StatsQuantiles, WaveStats

MeasureStyledText

MeasureStyledText [/W=*winName* /A=*axisName* /B=*baselineMode* /F=*fontName* /SIZE=*fontSize* /STYL=*fontStyle*] [*styledTextStr*]

The MeasureStyledText operation takes as input a string optionally containing style codes such as are used in graph annotations and the DrawText operation. It sets various variables with information about the dimensions of the string.

In Igor Pro 9.00, the styledTextStr parameter was made optional, the /B flag was added, and several output variables (all but V_width and V_height) were added.

Flags

/W= <i>winName</i>	Takes default text information from the window <i>winName</i> . If you omit /W, MeasureStyledText works on the top graph window.
/A= <i>axisName</i>	Takes default text information from the axis named <i>axisName</i> in the top graph or in the window specified by /W.
/B= <i>baseLineMode</i>	Selects which baseline offset is returned in V_baseline if the text contains multiple lines (separated by carriage returns). If you omit /B or specify /B=0, V_baseline is set to the offset to the last line of the text. If you specify /B=1, V_baseline is set to the offset to the first line of the text. The /B flag was added in Igor Pro 9.00.
/F= <i>fontNameStr</i>	The name of the default font. In Igor Pro 9.00 and later, /F="default" and /F="" are the same as omitting /F in which case the default font is defined by /W, /A, or by the overall default font specified by the DefaultFont operation.
/SIZE= <i>size</i>	Sets default font size.
/STYL= <i>fontStyle</i>	Sets default font style: Bit 0: Bold Bit 1: Italic Bit 2: Underline Bit 4: Strikethrough /STYLE=0 specifies plain text. See Setting Bit Parameters on page IV-12 for details about bit settings.

Parameters

styledTextStr is the styled text to be measured.

In Igor Pro 9.00 and later, *styledTextStr* is an optional parameter. Previously it was required.

If you include *styledTextStr*, the default font and styled text output variables are set.

If you omit *styledTextStr*, only the default font output variables are set.

See **Default Font Output Variables** and **Styled Text Output Variables** below.

styledTextStr can contain escape codes to set the font, size, style, color and other properties. See **Annotation Escape Codes** on page III-53 for details. The text may contain multiple lines separated with carriage returns ("\\r").

Details

In the absence of formatting codes within the text that set the font, font size and font style, some mechanism must be provided that sets them.

The /W flag tells MeasureStyledText to get the default font name and font size from the specified window. If /W is omitted, defaults come from the top graph window.

The /A flag specifies that the default font name and font size come from the specified axis in the graph window specified by /W or in the top graph if /W is omitted.

The /F, /SIZE and /STYL flags set defaults that override any defaults from a window or axis. If you don't use any flags, the defaults are Igor's overall defaults.

If you omit all flags, the font specified by the **DefaultFont** operation is used, the default font size is 12 points, and the style is plain.

Default Font Output Variables

In the descriptions of these variables, "default font" refers to the font, size, and style defined by /W, /A, /SIZE, and /STYLE, and not any escape codes in styledTextStr.

MeasureStyledText returns information about the default font via the following output variables:

S_font	The name of the default font (before escape codes in <i>styledTextStr</i> take effect). If a substitute font would be used, the name of the substitute font is returned.
V_ascent	Height above the baseline of the default font. This will include some blank space above even the tallest characters.
V_descent	Height below the baseline of the default font.
V_fontSize	The default font size in points.
V_fontStyle	The default font style.
V_subscriptExtraHeight	Extra height needed to accomodate any subscript when using the default font.
V_superscriptExtraHeight	Extra height needed to accomodate any superscript when using the default font.

Styled Text Output Variables

The MeasureStyledText operation returns information in the following variables:

V_width	The width in points of the text.
V_height	The height in points of the text.
V_baseline	The offset to the baseline of the styled text in points, as measured from the bottom of the text. If you omit /B or specify /B=0, this is is the offset to the last line's baseline. If you specify /B=1, this is is the offset to the first line's baseline.

MeasureStyledText Diagrams

These diagrams illustrate the meanings of the various output variables:

