

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 `numpnts(waveName)-1`, median limits them to the nearest of point 0 or point `numpnts(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

<i>/W=winName</i>	Takes default text information from the window <i>winName</i> . If you omit /W, MeasureStyledText works on the top graph window.
<i>/A=axisName</i>	Takes default text information from the axis named <i>axisName</i> in the top graph or in the window specified by /W.
<i>/B=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.
<i>/F=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 <b>DefaultFont</b> operation.
<i>/SIZE=size</i>	Sets default font size.
<i>/STYL=fontStyle</i>	Sets default font style: Bit 0: Bold Bit 1: Italic Bit 2: Underline Bit 4: Strikethrough /STYLE=0 specifies plain text. See <b>Setting Bit Parameters</b> 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.

## MeasureStyledText

See **Default Font Output Variables** and **Styed 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.

### Styed 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 the offset to the last line's baseline. If you specify /B=1, this is the offset to the first line's baseline.

### MeasureStyledText Diagrams

These diagrams illustrate the meanings of the various output variables:

