

```
// Y error bars only, constant error value = 4.3
ErrorBars wavel,Y const=4.3

// Error box, 10% in horizontal direction, 5% in vertical direction
ErrorBars wavel,BOX pct=10,pct=5

// Error box filled with blue color having 50% alpha (transparency)
// 10% in horizontal direction, 5% in vertical direction
ErrorBars wavel,BOX=(0,0,65535,32767) pct=10,pct=5

// Change the error box fill to red color having 50% alpha
// without changing the way the errors are computed.
ErrorBars wavel,BOX=(65535,0,0,32767) nochange, nochange

// Y error bars only, wave w1 has errors for Y+ bars
// wave w2 has errors for Y- bars
ErrorBars wavel,Y wave=(w1,w2)

// Y error bars only, same wave for both Y+ and Y-.
// Overrides the trace color to make the error bars black.
ErrorBars/RGB=(0,0,0) wavel,Y wave=(w1,w1)

// Y error bars only, no Y+ error bars, wave w2 has errors for Y- bars
ErrorBars wavel,Y wave=(,w2)

// Turns error bars for wavel off
ErrorBars wavel,OFF
```

### Error Ellipse Example

See [Error Ellipse Example](#) on page II-306.

### See Also

[Error Bars](#) on page II-304, [Trace Names](#) on page II-282, [Programming With Trace Names](#) on page IV-87.

## EstimatePeakSizes

**EstimatePeakSizes** [/B=*baseWave*] [/X=*xWave*] [/E=*bothEdgesWave*] *edgePct*,  
*maxWidth*, *box*, *npks*, *peakCentersWave*, *peakWave*, *peakAmplitudesWave*,  
*peakWidthsWave*

The EstimatePeakSizes operation estimates the amplitudes and widths of peaks whose estimated centers are given.

The EstimatePeakSizes operation is used primarily by the Igor Technical Note #20 and its variants.

### Parameters

*edgePct* is the percentage of peak height at which the edge is detected, relative to the baseline. It must be between 1 and 99, and is usually 50.

*maxWidth* is the maximum width that will be returned in *peakWidthsWave*, in X coordinates.

*box* is the number of peak values included in the sliding average when smoothing *peakWave* and *baseWave*. If you specify an even number, the next-higher odd number is used.

*npks* is the number of peaks whose sizes are to be estimated. It must be at least 1.

*peakCentersWave* must contain the point numbers of the centers of the peaks and have a length of at least *npks*. The peak sizes are estimated by starting the search for the peak edges from these peak centers. The *i*-th peak center must be stored in *peakCentersWave*[*i*] where *i* ranges from 0 to *npks*-1. The peak center values in *peakCentersWave* must be monotonically increasing or decreasing.

*peakWave* is the input wave containing the peaks.

*peakAmplitudesWave* is an output wave that will contain the baseline-corrected peak amplitudes of the peaks. It must have a length of at least *npks*. The *i*-th peak amplitude is stored in *peakAmplitudesWave*[*i*].

*peakWidthsWave* is an output wave that will contain the widths of the peaks in X coordinates. It must have a length of at least *npks*. The *i*-th peak width is stored in *peakWidthsWave*[*i*].

### Flags

/B=*baseWave*

*baseWave* is subtracted from *peakWave* to compute the derived data which is searched for edges. It must be the same length as *peakWave*.