Fit Inspector

Smooth & Differentiate
This functions needs an effective smooth width as parameter. This is a measure for the intensity of smoothing which will also be implemented for differentiation.

The Find Int button calculates a interval which produces a good result and does not damage the spectrum.

The three *Execute* buttons starts the different calculations: *Least Square Smooth, FFT Smooth* and *Differentiation.*

The *Result Mode* radio buttons instructs SciPlot what to do with the results of these manipulations: Overwrite the input buffer or create a new one.

For more information look up in the documentations which are mentioned in the *Sources* help file.

FFT (Fast Fourier Transfom)
This function makes a Fast Fourier Transform for all selected buffers. For more information look up in the documentations which are mentioned in the *Sources* help file.

The *Result Mode* radio buttons instructs SciPlot what to do with the results of these manipulations: Overwrite the input buffer or create a new one.

Linear Regression
This function calculates the linear regression between the *X min* and *X max* value by using the following functions.

$$y = A + Bx$$

$$B = (n*\Sigma xy - \Sigma x*\Sigma y) / (n*\Sigma x^2 - (\Sigma x)^2)$$

$$A = (\Sigma y - B*\Sigma x) / n$$

$$r = (n*\Sigma xy - \Sigma x*\Sigma y) / (\sqrt{((n*\Sigma x^2-(\Sigma x)^2) * (n*\Sigma y^2-(\Sigma y)^2))})$$