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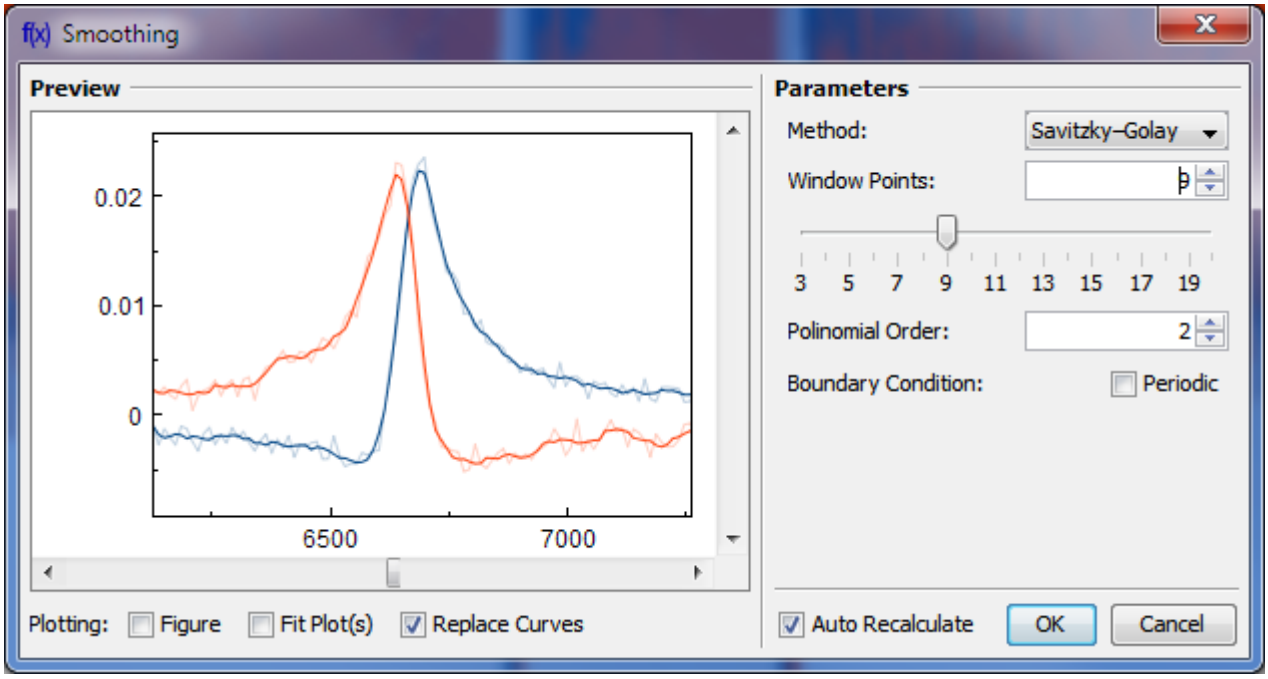
Smoothing (Pro edition only)

Open Table or Figure or Fit Plot with initial data and select `Processing → Smooth` menu item. The opened processing dialog shows parameters, initial curves (semi-transparent) and smoothed preview.



Algorithms

Two algorithms are available: Central Moving Average and Savitzky-Golay method.

`Periodic` checkbox applies on calculation of first and last *p/2* points. When it is set MagicPlot will take missing values from the opposite end (as if the signal is periodic) to calculate first and last *p/2* points.

Central Moving Average

Each value A_k is replaced with *p*-points average:

$$A_k = \sum_{i=k-p/2}^{k+p/2} a_i .$$

If `Periodic` checkbox is not set the first and last *p/2* points are calculated with the same symmetrical formula but with less summands.

Savitzky-Golay Filter

A Savitzky–Golay filter essentially performs a local polynomial regression on a series of equally spaced data points. Each data point value is replaced with local polynomial value at this point.

If `Periodic` checkbox is not set, MagicPlot will repeat the values of the first and last points to calculate a polynomial for the first and last *p/2* points.

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http://magicplot.com/wiki/ - **MagicPlot Manual**

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