

How to use the Straightness Calculation Simulator

The application for "Straightness Calculation" explores its concept and the procedure for determining it.

- i) In the upper left side section, the user may select a data file with extracted points (x_i, y_i) , and then it might be loaded. In the lower left section a table with extracted points (x_i, y_i) of the loaded file appears. Immediately, on the right side of the user interface, a chart containing the extracted points is displayed. If the user introduces any change in the table of values, immediately the change is evident in the chart. In the lower left corner the save button permits to record that new file.
- ii) In the upper left side section, the user may also select the evaluation method (only the least squares reference method is available). The least squares reference line adjusted to the points appears in the chart as well as are displayed the corresponding equation and its parameters.
- iii) To obtain the straightness deviation press the "Straightness calculation" button. The Straightness deviation is defined by the sum of the value of the maximum positive local straightness deviation, a_{imax} , with the absolute value of the maximum negative local straightness deviation, a_{imin} .