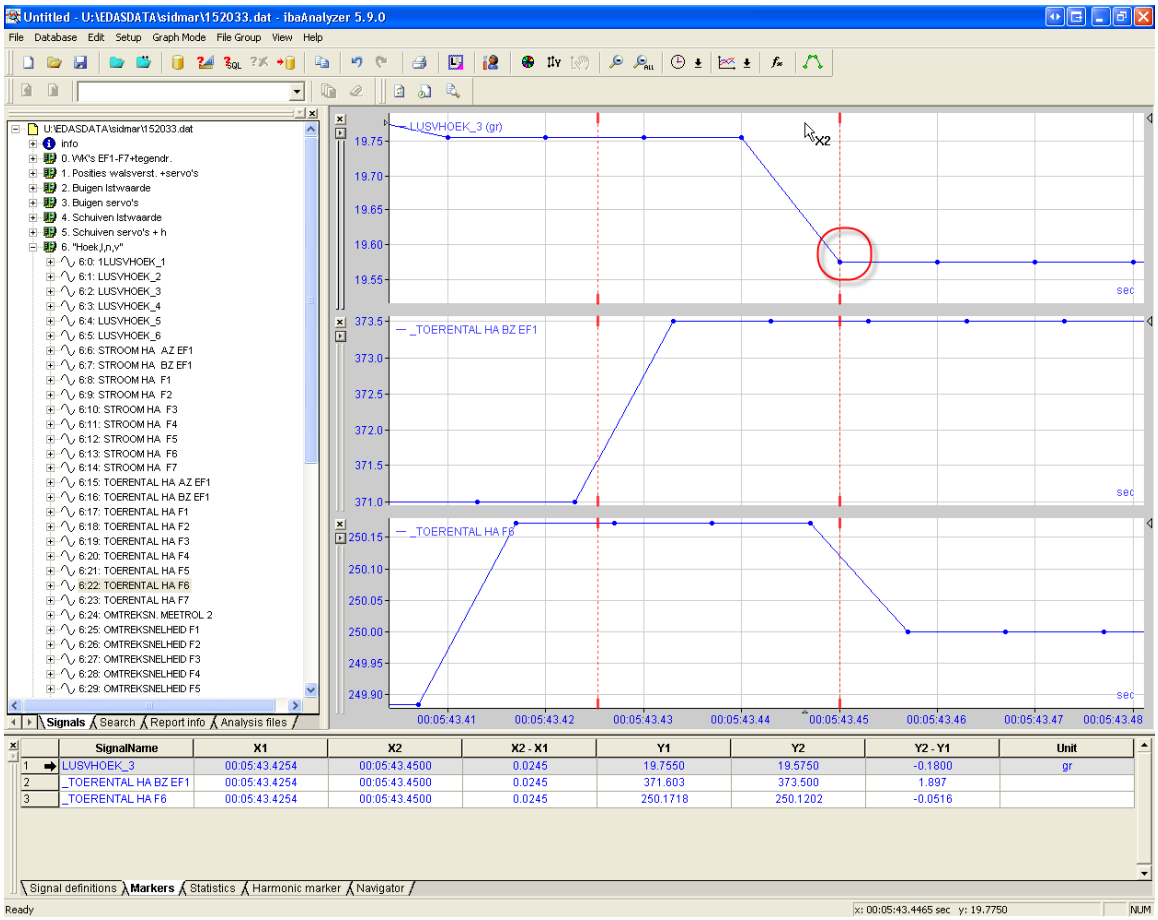
IbaAnalyzer 5.9.0 new functionality description

Markers

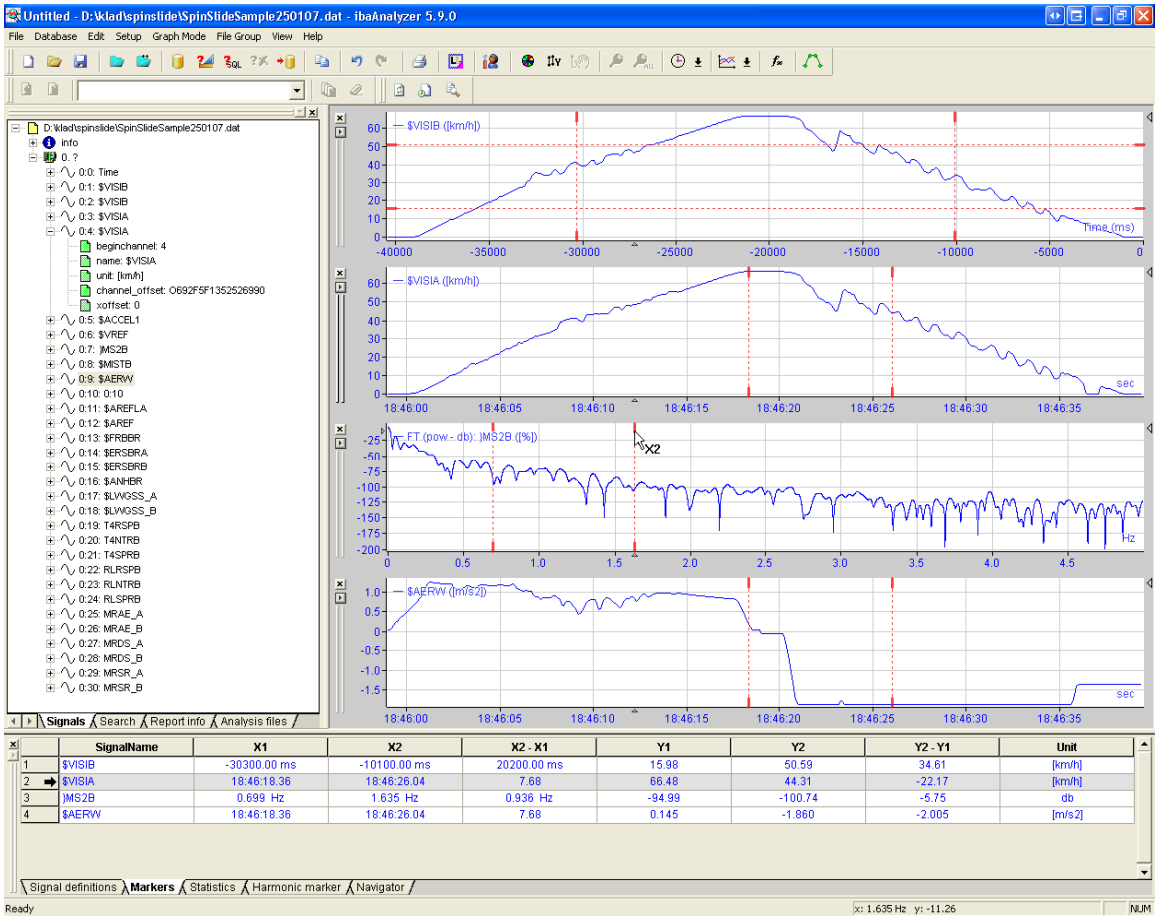
Snapping to the closest sample point

If the ‘Ctrl’- button is pressed while dragging one of the classic markers, the marker will move to the x-position of the sample point closest to the mouse cursor. Only the sample points of the *current signal* will be considered as candidates to snap to. The *current signal* is the signal that is selected in the signal, marker or statistics gridview (i.e. the signal that is highlighted in the gridview). If no sample points are visible (for instance because you have zoomed in too much) no snapping will occur and the markers will behave normally.



Independent markers for each X-axis

Each X-axis now has its own pair of classic markers which can be dragged independently of each other. In previous versions of ibaAnalyzer, moving for instance a classic marker on a graph that was time based, would also move the marker on a graph that was for instance length based to the same screen pixel, however since the time and length axes represent different units, the position of the last marker was meaningless.
Note that an X/Y-graph has also its own axis and thus has also its own pair of classic markers. Multiple X/Y graphs which have the same expression for their X-axis, have in fact the same X-axis and hence also share their classic markers.



Greater accuracy of the markers

In previous versions of ibaAnalyzer, the classic marker positions where internally stored by the X-coordinate of the pixel they were on. From this pixel an actual position on the axis was derived to calculate the marker statistics from. However, since that position was only accurate on the pixel scale, zooming in or out, panning the X-axis or resizing the width of the recorder window would cause this position to change slightly. In the current ibaAnalyzer, after positioning a marker, a position on the axis is derived and that value is kept constant during zooming, panning or resizing actions. Of course, if you zoom or pan out so much that the marker drops out of the X-range of the graph then it is repositioned to one fourth or three fourths of the X-range for respectively the X1 or X2 marker.

New functions

VarDelay

This function is nearly identical to the VarDelay function introduced in ibaPDA version 6.13. The function takes two arguments, *'Expr'* and *'Delay'*. For each time sample *t* the value *Expr(t – Delay(t))* is returned.

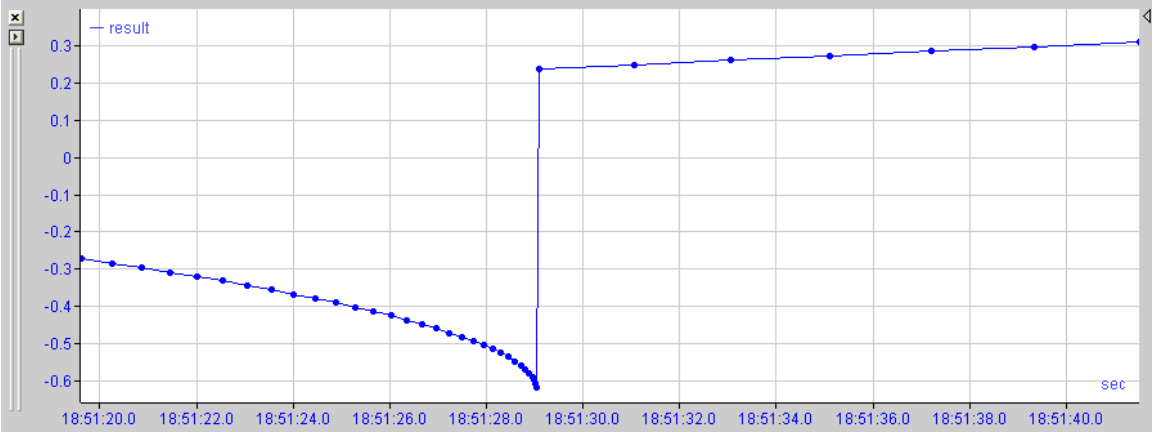
XY

While you can display an X/Y plot of one signal versus another signal with the X/Y display mode option, you cannot do further calculations with the result. With the XY function, you generate a plot similar to the X/Y plot, but the result is not put on a different axis (it uses the axis the arguments were using) and the result can be used in further expressions.
The function has three arguments.

- *'Y'*,, the Y signal of the resulting X/Y plot
- *'X'*, the X signal of the resulting X/Y plot
- '*Precision'*, this argument is optional and is the sample rate at which the resulting signal is resampled in further calculations.

The result of the function is depicted and stored non-equidistantly, i.e. not every sample point of the resulting function is the same distance away from its previous sample point, in fact the resulting sample points are entirely defined by the 'X' argument. However, since other ibaAnalyzer functions expect equidistant data, if the result is used in further calculations, it is resampled to equidistant data with a sample distance equaling either the parameter 'Precision' or if this parameter is ommited, the smallest difference between any two consecutive values of the 'X' signal.

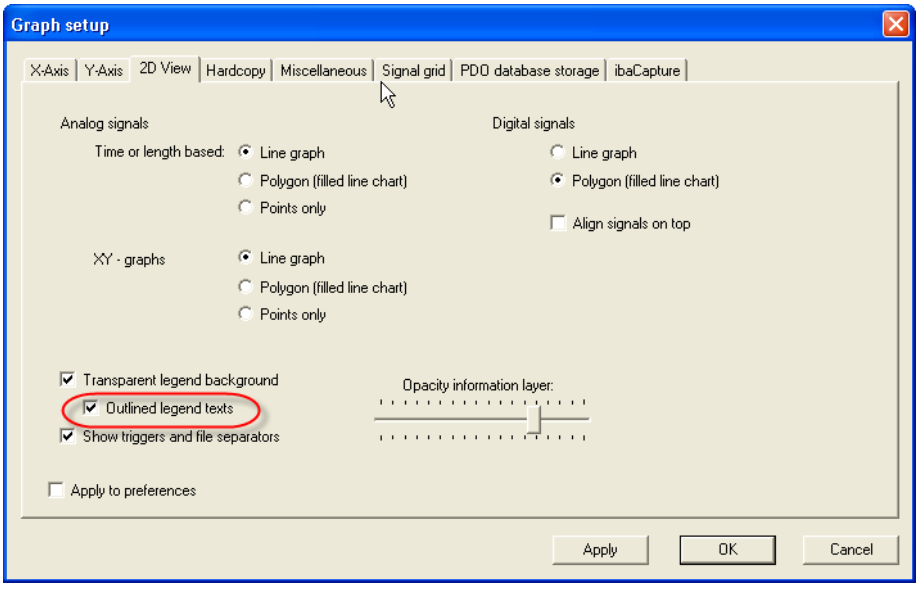
The ‘X’ signal is assumed to be an increasing function; this is to ensure that the resulting function is a mathematical function (i.e. for every X-value only one Y-value). If a sample point value of the ‘X’ signal is smaller or equal than its previous sample point value, it is ignored along with its corresponding sample point in the ‘Y’ signal.

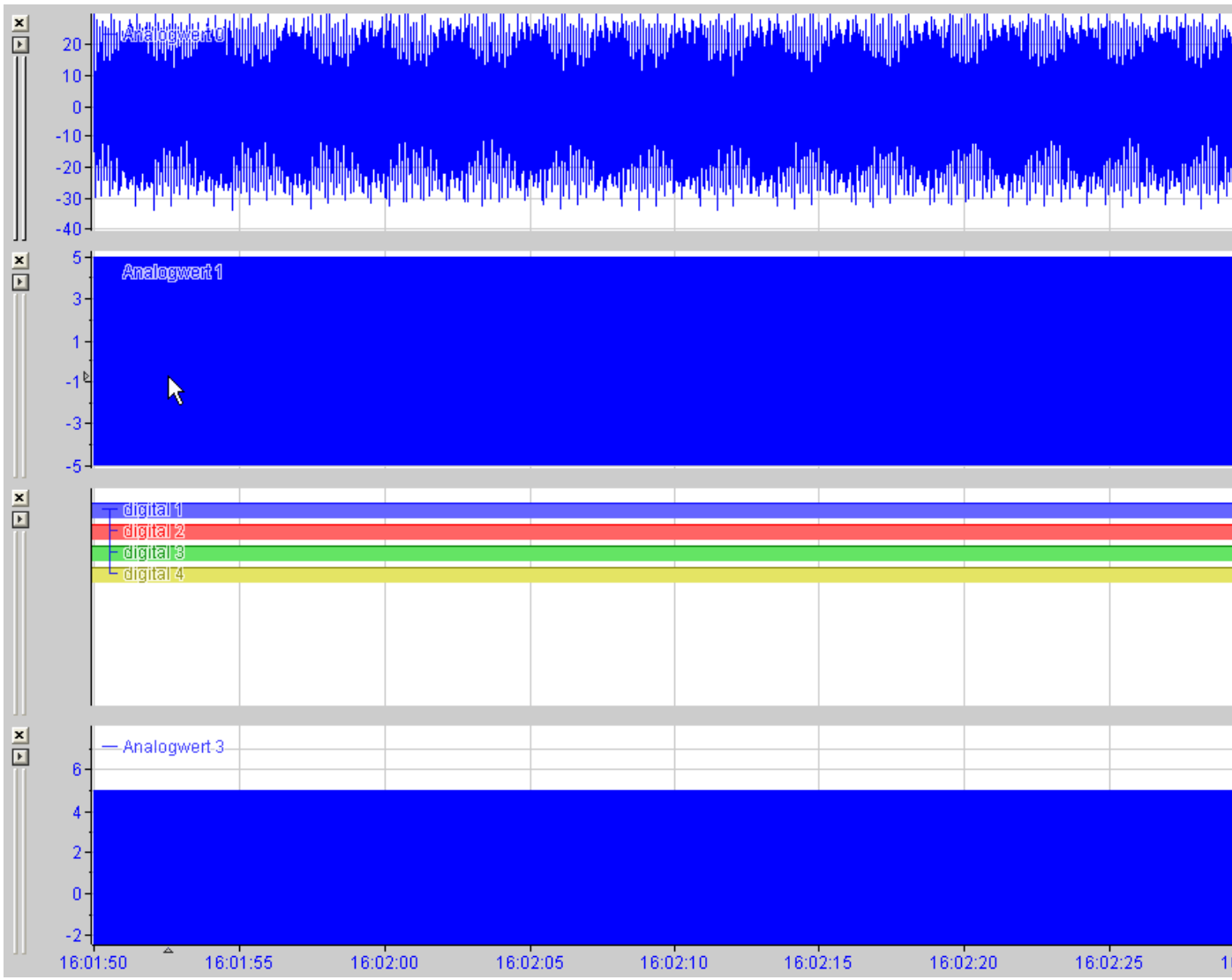


Legends

In previous versions of ibaAnalyzer, if you selected the legends to have transparent background, the legend was sometimes not readable because the signal was drawn over it. On the other hand, if you selected to have nontransparent legend backgrounds, a part of the signal was sometimes not visible. In the current version of ibaAnalyzer you can select in the case of a transparent background, to have the legend text outlined with a one pixel wide outlining in the background color, so the legend text is readable at all times.

You can select this option in the same place where you can select the legend background transparency (Preferences or graph setup, and then the 2D-view options tab)

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