

# IbaAnalyzer 5.12.0 new functionality description

## Grids

### General

Every grid in ibaAnalyzer has been replaced by a nicer looking grid supporting XP themed controls. The functionality present in the old grids is present in the new grids except for hiding columns and rows by dragging the column or row separators onto each other (accidentally hiding rows or columns isn't possible anymore). Additional copy/paste functionality is implemented. Checkbox columns and X-Type selection box columns have additional functionality to alter a range of values at once.

*oldgrid:*

	Show	SignalName	Expression	Unit
6	<input type="checkbox"/>	vl_pas5	$\text{xmarkvalid}(\text{vl\_pas5}) \text{ AND } (\text{pasnr} = 5) \text{ AND } (\text{valid})$	
7	<input type="checkbox"/>	vl_pas6	$\text{xmarkvalid}(\text{vl\_pas6}) \text{ AND } (\text{pasnr} = 6) \text{ AND } (\text{valid})$	
8	<input type="checkbox"/>	vl_pas7	$\text{xmarkvalid}(\text{vl\_pas7}) \text{ AND } (\text{pasnr} = 7) \text{ AND } (\text{valid})$	
9	<input type="checkbox"/>	valid	$\text{stddev}(\text{vl\_pas}) <= 0$	
10	<input checked="" type="checkbox"/>	vl_pas1_L	$\text{timetolength}(\text{vl\_pas1}, \text{xmarkvalid}(\text{vl\_pas1}), \text{pasnr} = 1, 2)$	
11	<input checked="" type="checkbox"/>	vl_pas2_L	$\text{xmirror}(\text{timetolength}(\text{vl\_pas2}, \text{xmarkvalid}(\text{vl\_pas2}), \text{pasnr} = 2, 2))$	
12	<input checked="" type="checkbox"/>	vl_pas3_L	$\text{timetolength}(\text{vl\_pas3}, \text{xmarkvalid}(\text{vl\_pas3}), \text{pasnr} = 3, 2)$	
13	<input checked="" type="checkbox"/>	vl_pas4_L	$\text{xmirror}(\text{timetolength}(\text{vl\_pas4}, \text{xmarkvalid}(\text{vl\_pas4}), \text{pasnr} = 4, 2))$	
14	<input checked="" type="checkbox"/>	vl_pas5_L	$\text{timetolength}(\text{vl\_pas5}, \text{xmarkvalid}(\text{vl\_pas5}), \text{pasnr} = 5, 2)$	
15	<input checked="" type="checkbox"/>	vl_pas6_L	$\text{xmirror}(\text{timetolength}(\text{vl\_pas6}, \text{xmarkvalid}(\text{vl\_pas6}), \text{pasnr} = 6, 2))$	

*newgrid:*

	Show	SignalName	Expression	Unit
6	<input type="checkbox"/>	vl_pas5	$\text{xmarkvalid}(\text{vl\_pas5}) \text{ AND } (\text{pasnr} = 5) \text{ AND } (\text{valid})$	
7	<input type="checkbox"/>	vl_pas6	$\text{xmarkvalid}(\text{vl\_pas6}) \text{ AND } (\text{pasnr} = 6) \text{ AND } (\text{valid})$	
8	<input type="checkbox"/>	vl_pas7	$\text{xmarkvalid}(\text{vl\_pas7}) \text{ AND } (\text{pasnr} = 7) \text{ AND } (\text{valid})$	
9	<input type="checkbox"/>	valid	$\text{stddev}(\text{vl\_pas}) <= 0$	
10	<input checked="" type="checkbox"/>	vl_pas1_L	$\text{timetolength}(\text{vl\_pas1}, \text{xmarkvalid}(\text{vl\_pas1}), \text{pasnr} = 1, 2)$	
11	<input checked="" type="checkbox"/>	vl_pas2_L	$\text{xmirror}(\text{timetolength}(\text{vl\_pas2}, \text{xmarkvalid}(\text{vl\_pas2}), \text{pasnr} = 2, 2))$	
12	<input checked="" type="checkbox"/>	vl_pas3_L	$\text{timetolength}(\text{vl\_pas3}, \text{xmarkvalid}(\text{vl\_pas3}), \text{pasnr} = 3, 2)$	
13	<input checked="" type="checkbox"/>	vl_pas4_L	$\text{xmirror}(\text{timetolength}(\text{vl\_pas4}, \text{xmarkvalid}(\text{vl\_pas4}), \text{pasnr} = 4, 2))$	
14	<input checked="" type="checkbox"/>	vl_pas5_L	$\text{timetolength}(\text{vl\_pas5}, \text{xmarkvalid}(\text{vl\_pas5}), \text{pasnr} = 5, 2)$	
15	<input checked="" type="checkbox"/>	vl_pas6_L	$\text{xmirror}(\text{timetolength}(\text{vl\_pas6}, \text{xmarkvalid}(\text{vl\_pas6}), \text{pasnr} = 6, 2))$	

### Checkboxes and XType selection

Similarly to ibaPDA, if you click on the header of a checkbox column, every checkbox from the selected row up to the last rows is checked or unchecked if the checkbox for the selected row was resp. checked or unchecked. Similar functionality is present to set the value of an X-Type (computed columns dialog and logicals dialog).

## Copy/paste functionality

You can select a single cell, any part of the grid or the entire grid at once. You can clear the selected area by pressing the delete button on the keyboard, cut and copy to clipboard the selected area by pressing *Ctrl* + 'X' or copy the selected area by pressing *Ctrl* + 'C'. From the clipboard the selected area can then be copied in a program like for example Ms Excel.

A row can be selected at once by clicking the row header.

The entire grid can be selected at once by clicking the header cell in the upper left corner. You can select multiple parts of the grid by holding the *Ctrl* key while selecting an additional part of the grid.

You can also select a part of the grid and paste the contents of the clipboard in it by pressing *Ctrl* + 'V'.

	Show	SignalName	Expression	Unit	Color
1	<input checked="" type="checkbox"/>	pasnr	(count(abs(diff(3))) <= 0.050) / 2 + 1		
2	<input type="checkbox"/>	vl_pas1	xmarkvalid(vlakh),(pasnr = 1) AND (valid)		
3	<input type="checkbox"/>	vl_pas2	xmarkvalid(vlakh),(pasnr = 2) AND (valid)		
4	<input type="checkbox"/>	vl_pas3	xmarkvalid(vlakh),(pasnr = 3) AND (valid)		
5	<input type="checkbox"/>	vl_pas4	xmarkvalid(vlakh),(pasnr = 4) AND (valid)		
6	<input type="checkbox"/>	vl_pas5	xmarkvalid(vlakh),(pasnr = 5) AND (valid)		
7	<input checked="" type="checkbox"/>	vl_pas6	xmarkvalid(vlakh),(pasnr = 6) AND (valid)		
8	<input type="checkbox"/>	vl_pas7	xmarkvalid(vlakh),(pasnr = 7) AND (valid)		
9	<input type="checkbox"/>	valid	stddev(vlakh) <= 0		
10	<input checked="" type="checkbox"/>	vl_pas1_L	timetolength(vl_pas1,xmarkvalid([0]60,(pasnr = 1),2)		
11	<input checked="" type="checkbox"/>	vl_pas2_L	xmirror(timetolength(vl_pas2,xmarkvalid([0]60,(pasnr = 2),2))		
12	<input checked="" type="checkbox"/>	vl_pas3_L	timetolength(vl_pas3,xmarkvalid([0]60,(pasnr = 3),2)		
13	<input checked="" type="checkbox"/>	vl_pas4_L	xmirror(timetolength(vl_pas4,xmarkvalid([0]60,(pasnr = 4),2)		
14	<input checked="" type="checkbox"/>	vl_pas5_L	timetolength(vl_pas5,xmarkvalid([0]60,(pasnr = 5),2)		
15	<input checked="" type="checkbox"/>	vl_pas6_L	xmirror(timetolength(vl_pas6,xmarkvalid([0]60,(pasnr = 6),2)		
16	<input checked="" type="checkbox"/>	vl_pas7_L	vl_pas7_L		
17	<input checked="" type="checkbox"/>	vl_pas1_L_pas7	xstretch(vl_pas1_L,vl_pas7_L)		
18	<input checked="" type="checkbox"/>	vl_pas7_L	timetolength(vl_pas7,xmarkvalid([0]60,(pasnr = 7),2)		
19	<input type="checkbox"/>	gemiddelde vlakheid pas 1	many(25,avg(xmarkvalid(256,(pasnr = 1)),avg(xmarkvalid(257,(pasnr = 1)),avg(xmarkvalid(258,(pasnr = 1)),avg(xmarkvalid(259)		
20	<input type="checkbox"/>	gemiddelde vlakheid pas 2	many(25,avg(xmarkvalid(256,(pasnr = 2)),avg(xmarkvalid(257,(pasnr = 2)),avg(xmarkvalid(258,(pasnr = 2)),avg(xmarkvalid(259)		
21	<input type="checkbox"/>	gemiddelde vlakheid pas 3	many(25,avg(xmarkvalid(256,(pasnr = 3)),avg(xmarkvalid(257,(pasnr = 3)),avg(xmarkvalid(258,(pasnr = 3)),avg(xmarkvalid(259)		
22	<input type="checkbox"/>	gemiddelde vlakheid pas 4	many(25,avg(xmarkvalid(256,(pasnr = 4)),avg(xmarkvalid(257,(pasnr = 4)),avg(xmarkvalid(258,(pasnr = 4)),avg(xmarkvalid(259)		

## Resizable dialogs

The database, report, logicals, query and marker dialogs are now resizable. Also, the position and size of the dialog is stored and restored the next time you visit one of the dialogs.

The screenshot shows the 'Trend Query builder' dialog box in its default size. It features a blue title bar and a light beige background. The interface includes several sections: a top section for selecting the 'Timestamp field column' (set to '\_TIMESTAMP') and 'Table' (set to 'DEFILE2'); a section for selecting 'Filename field column' (set to '\_FILENAME'); a list of 'Available numeric fields' (FILEID, AVG, MAX, MIN) with 'MIN' selected; a list of 'Selected numeric fields' (STANDAARDAFWIJKING); a 'Conditions' table with two rows; and a bottom section with checkboxes for 'Merge signals on database sync field', 'Add to previous query result', and 'Place result in overview instead of signal tree'. The dialog is compact and fits within a small window.

Field	Cond	Value
_TIMESTAMP	>=	4/22/2008 4:01:34 PM
_TIMESTAMP	<=	4/25/2008 4:01:39 PM

The screenshot shows the same 'Trend Query builder' dialog box, but it is now significantly larger, demonstrating its resizable capability. The layout and content are identical to the first screenshot, but the dialog box has been expanded to fill more of the screen. The 'Conditions' table and the list of available numeric fields are more prominent due to the increased size.

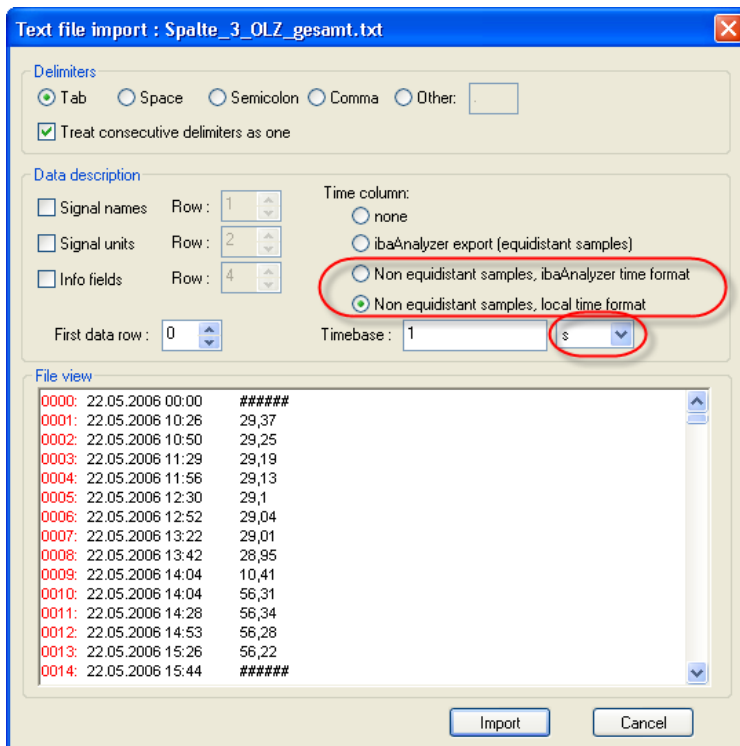
Field	Cond	Value
_TIMESTAMP	>=	4/22/2008 4:01:34 PM
_TIMESTAMP	<=	4/25/2008 4:01:39 PM

## Text import

In previous versions of ibaAnalyzer, when importing text files, you had the option to let ibaAnalyzer know that a time column was present. The *timebase* of the signal was then taken as the difference of the first two entries in the time column, other entries in the time column were ignored and the data was presented as equidistant data.

In the current version of ibaAnalyzer, you can select to import non-equidistant data from a text file. When doing so, each entry in the time column is used for the X-coordinate of the sample corresponding with the row of that entry.

Additionally you can specify that the timestamps are not in ibaAnalyzer format (which is the European default date/time format with any microseconds added as decimal part to the seconds) but in the local date/time format defined in the regional settings of your computer. When selecting the latter format, milliseconds are again expected to be specified as the decimal part of the seconds.



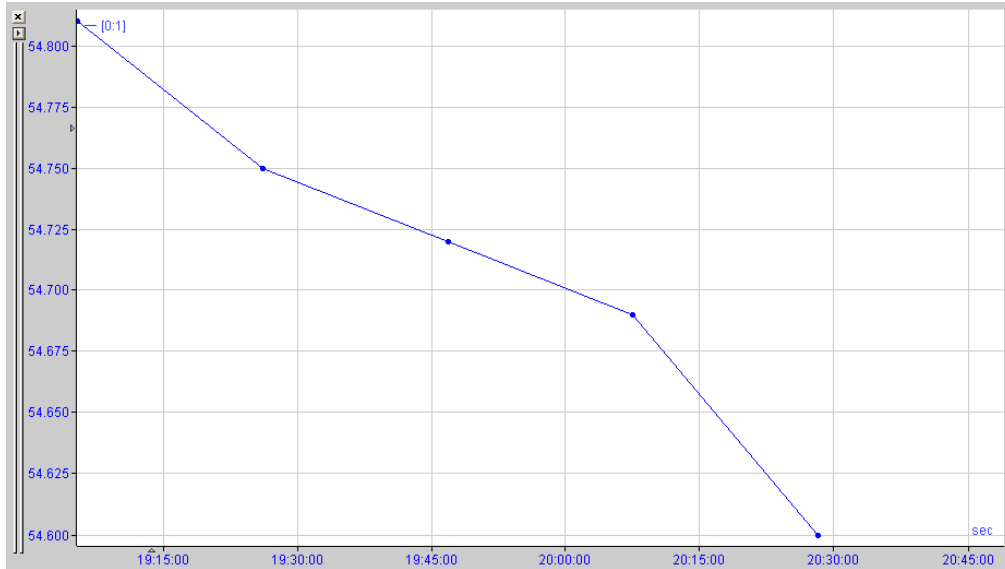
Even selecting one of the non equidistant data options, you can still specify a timebase manually; this timebase will then be used to resample the data to equidistant data when equidistant data is needed in a calculation performed on the imported data.

Note also that you can specify the timebase in another time unit than milliseconds by specifying the time unit from the dropdown list next to it.

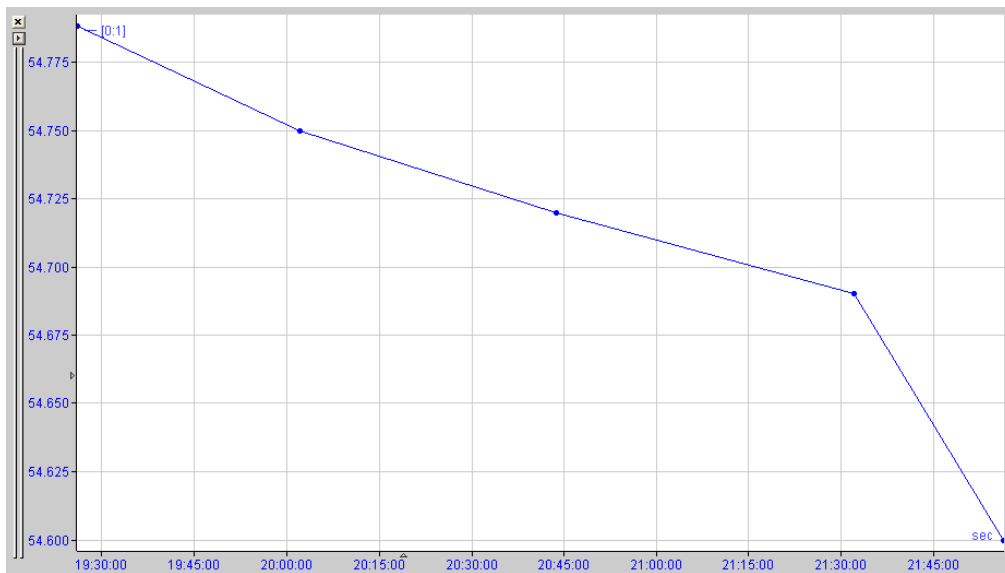
Example text file:

```
22.05.2006 19:05:30.002 54,87
22.05.2006 19:26:10.601 54,81
22.05.2006 20:02:10.708 54,75
22.05.2006 20:43:50.022 54,72
22.05.2006 21:32:00.340 54,69
22.05.2006 21:56:10.211 54,60
```

Imported equidistantly:

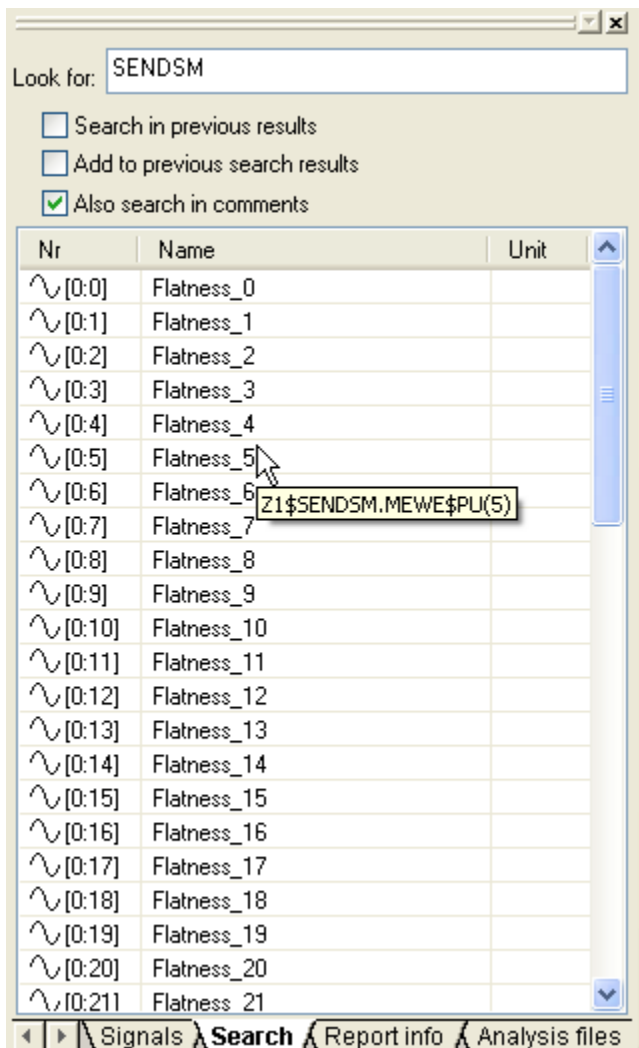


Imported with non equidistant timestamps:



## Search dialog

In the search dialog, any comments of signals or expressions are now visible as tooltips. Also you can select to have a signal or expression included in the search results when the search text matches with any of the comments of that signal or expression.



## Module names in signalgrid

An option is available in the *signalgrid* preferences to have the module name automatically prefixed to the signal name when opening a signal from the signal tree, search dialog or analysis tree.

