Pulsar Instruments –

Acoustic Toolbox Reporting Software

The Pulsar Acoustic Toolbox is a powerful analysis software tool to be used with the Model 30 and Model 33 ranges.

Overview

Acoustic toolbox is a convenient environment that allows you to do the following tasks:

- Program the setup of your sound level meter
- Display data files in graphical and numerical formats and copy these into Word or Excel documents
- Display data on your PC in real time by connecting your Model 30 and Model 33 to your computer
- Analyse data in great depth
- Analyse data every 1/8th second (Model 33 only)
- Live remote download and configuration
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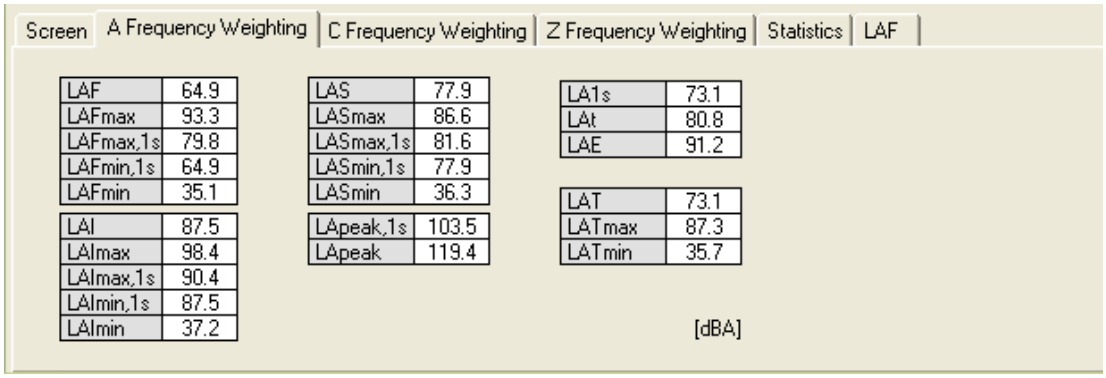
You can use either the menu systems or icons to quickly navigate through the software.

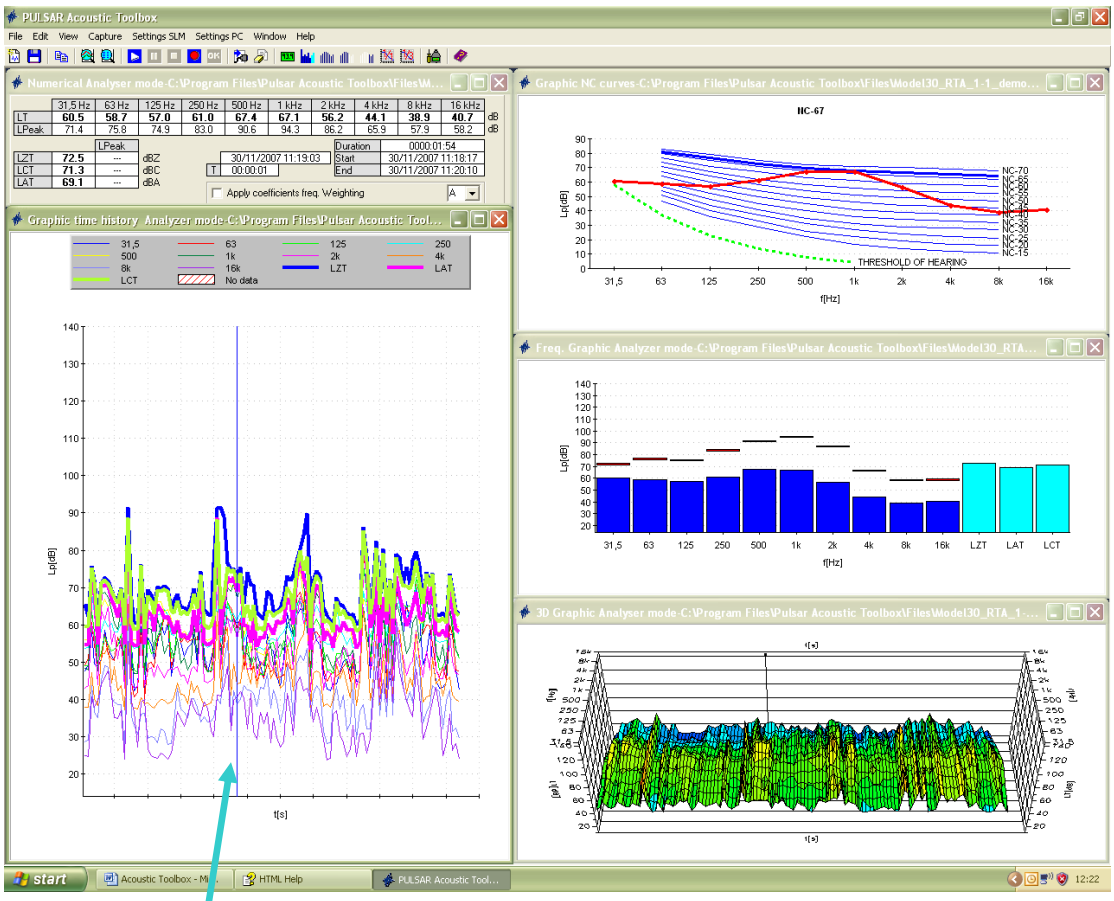
Live computer 'on screen' display in Sound Level Meter

Any 3 parameters can be displayed graphically live and the 'frequency' tabs allow you to look in more detail at a particular weighting and parameters:

Comprehensive numerical Data for all parameters of a chosen Frequency Weighting



Typical data View of a 1:1 Octave Band Measurement download



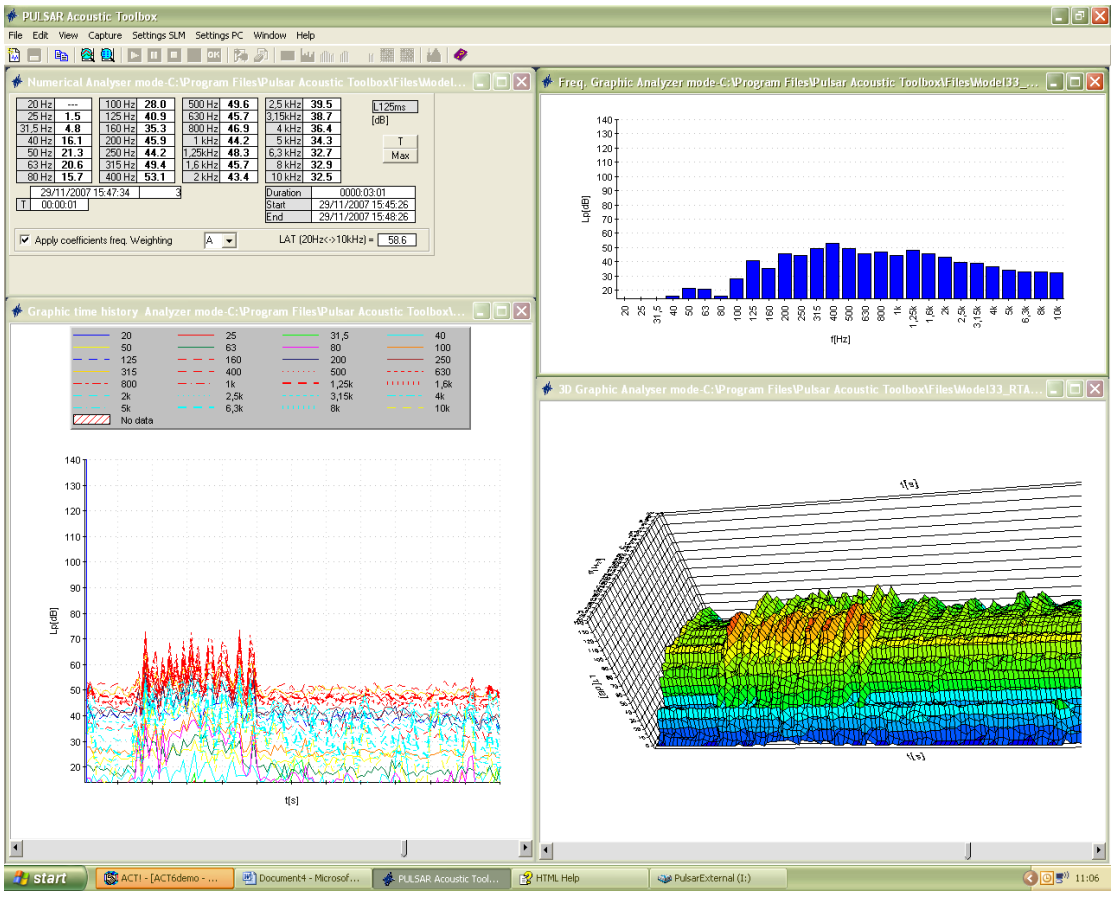
Using the cursor you can examine any part of the measurement by simply moving the cursor. You can select a variety of visual data as shown above. Numerical values, waterfall graphs, NC calculations, Octave Band Graphs and a 3D plot.

Extra features available with the Model 33

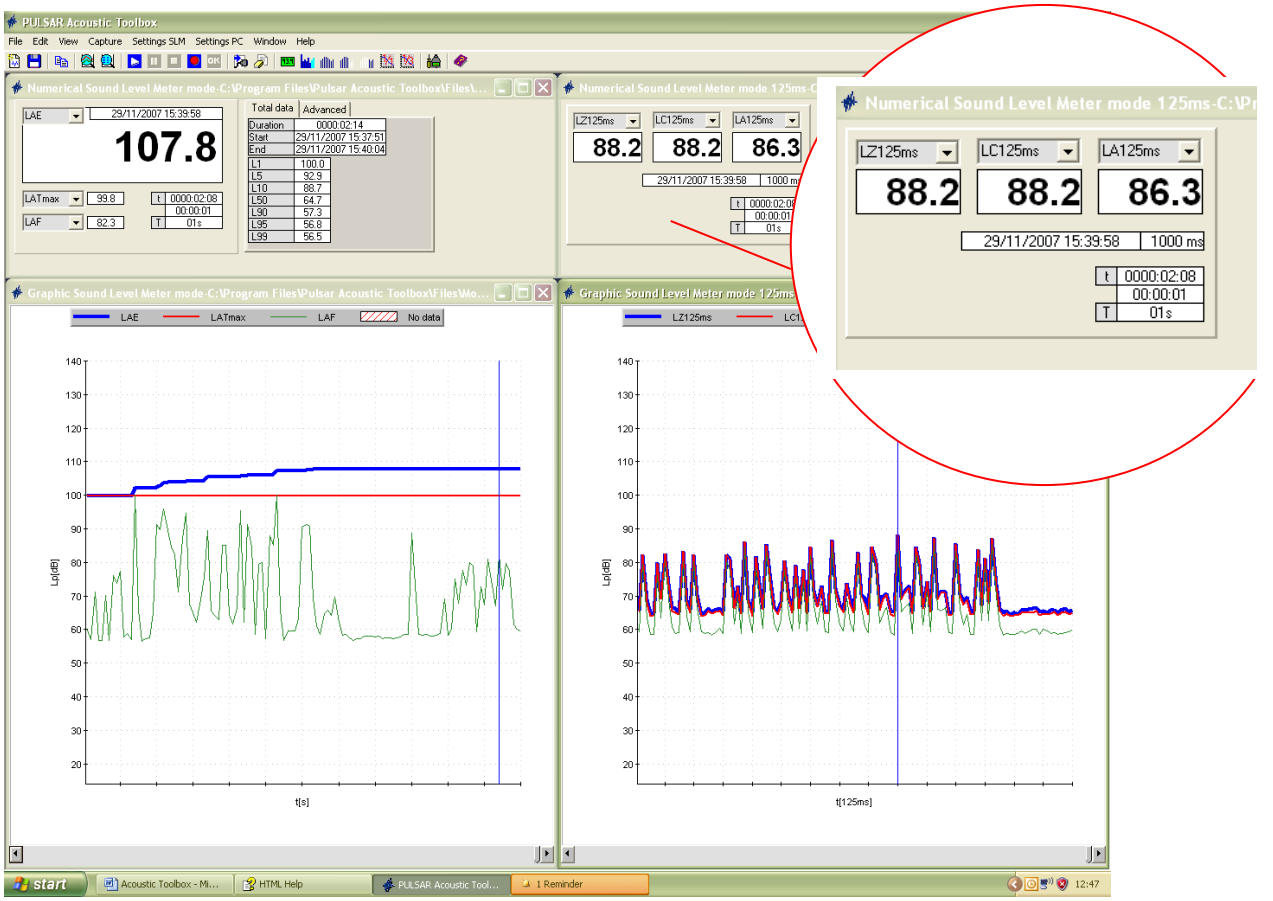
The Model 33 has many extra options available apart from the obvious 1:3 Octave Data.

- 1/8 of second analysis in broadband and tonal modes. Especially useful for engineering and acoustic applications.
- Optional extended frequency downloads down to centre point of 6.5Hz and up to centre frequency of 20KHz
- Max / Min reports for 1:3 Octave Band Measurements

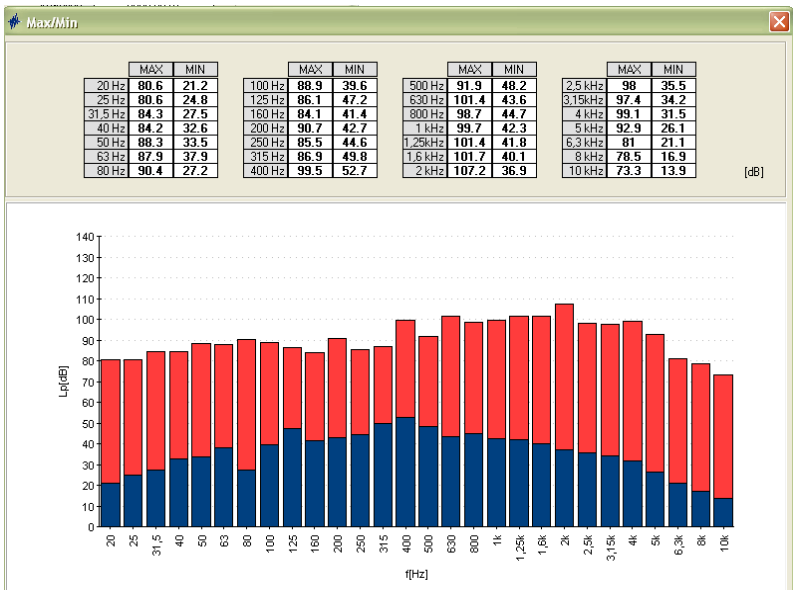
Typical graphical displays for 1:3 Octave Band Measurements



1/8th Second Analysis - Typical display of numerical, graphical, waterfall and 3D views of a 1:3 Octave Band Measurement.



Max / Min report for a 1:3 Octave Band Analysis measurement.



	MAX	MIN
20 Hz	80.6	21.2
25 Hz	80.6	24.8
31.5 Hz	84.3	27.5
40 Hz	84.2	32.6
50 Hz	88.3	33.5
63 Hz	87.9	37.9
80 Hz	90.4	27.2
100 Hz	88.9	39.6
125 Hz	86.1	47.2
160 Hz	84.1	41.4
200 Hz	90.7	42.7
250 Hz	85.5	44.6
315 Hz	86.9	49.8
400 Hz	99.5	52.7
500 Hz	91.9	48.2
630 Hz	101.4	43.6
800 Hz	98.7	44.7
1 kHz	99.7	42.3
1,25kHz	101.4	41.8
1,6 kHz	101.7	40.1
2 kHz	107.2	36.9
2,5 kHz	98	35.5
3,15kHz	97.4	34.2
4 kHz	99.1	31.5
5 kHz	92.9	26.1
6,3 kHz	81	21.1
8 kHz	78.5	16.9
10 kHz	73.3	13.9

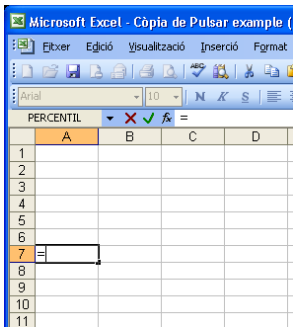
Acoustic Toolbox

Environmental Reports

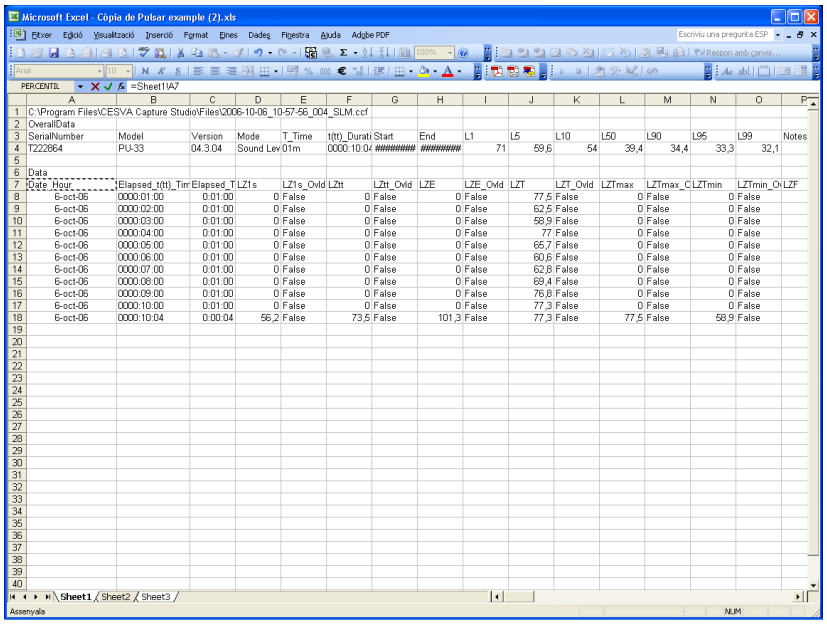
The Model 33 and Model 30 (now obsolete) can do repeated measurements (for example 5 or 15 minutes) during the day. Many parameters are recorded (130 columns) and little of this information is actually needed in most reports. The best way is select Display -> Text and then copy into Excel. A way of representing these results in a straightforward manner is as follows.

No macros are needed. Just go to 'sheet2' and follow these instructions (see attached spreadsheet).

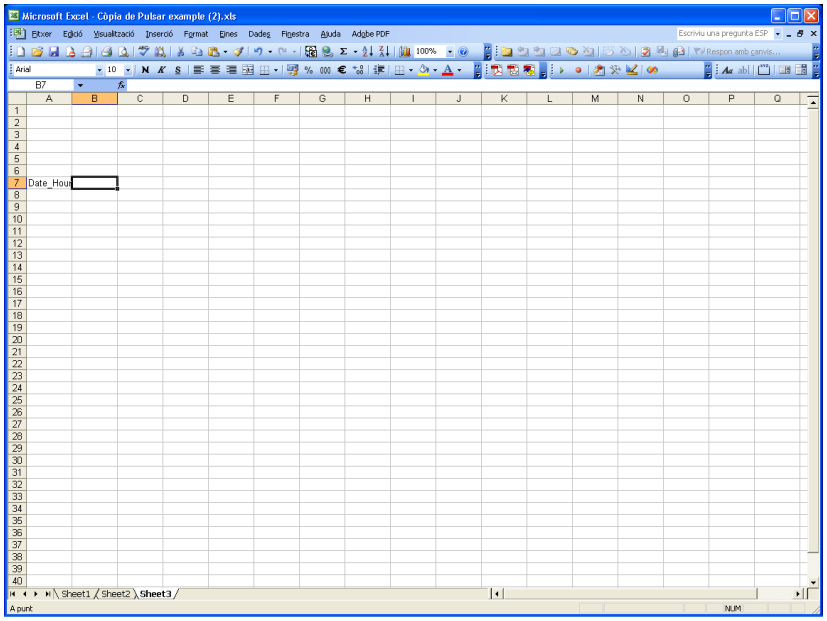
1) Go to a cell and type '='



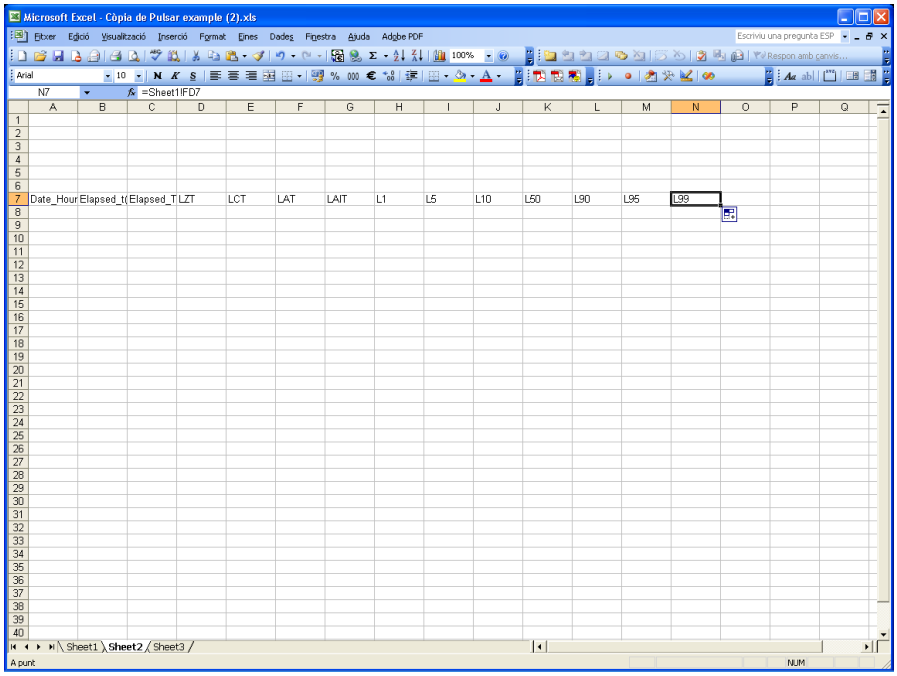
2) Go to 'sheet1' and select the cell with the name of the function you want (time, Leq, etc.)



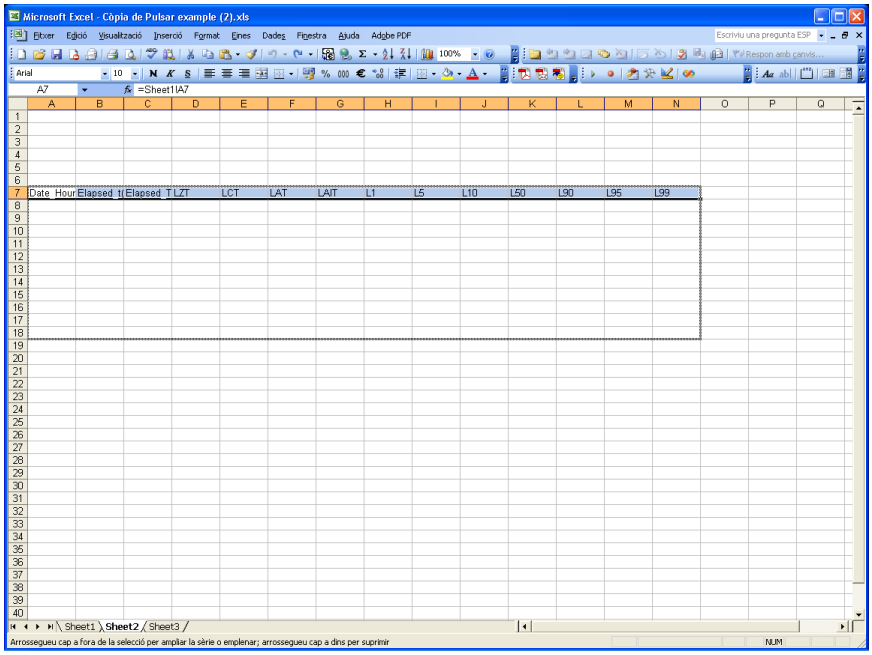
3) Press TAB key



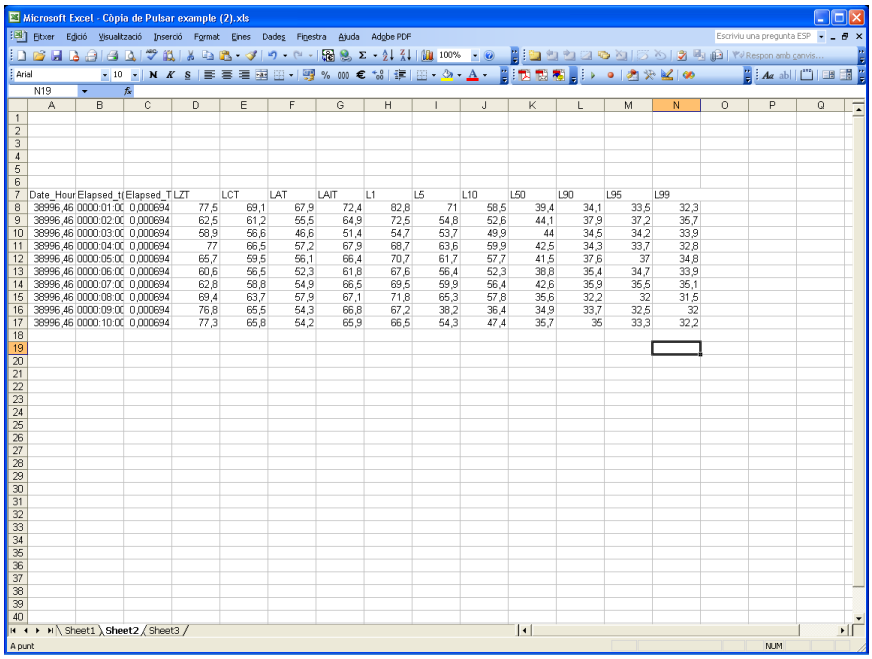
4) Do this for all the functions you want



5) Select cells and drag for all the rows you have data available



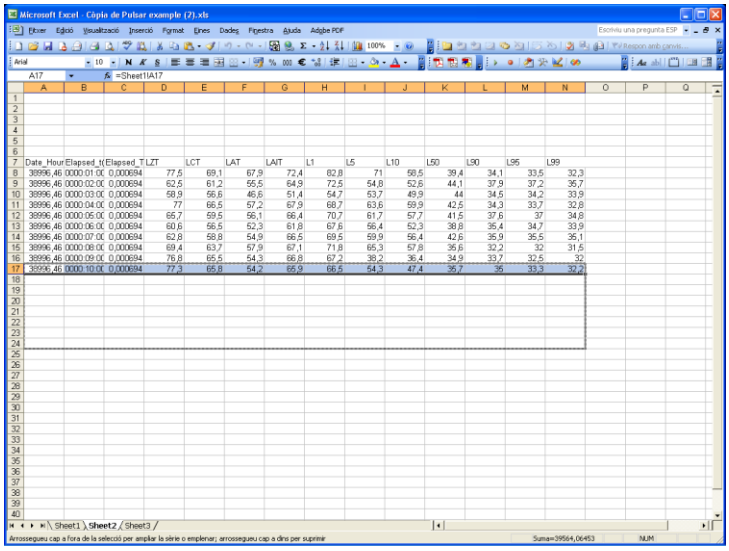
6) Now you can add any graphic you want



7) Save the file

The way of working with another file is just; select Display -> Text from Acoustic Toolbox. Open the Excel file that you have already done, not a new one. Select cell A1 of the 'sheet1' and copy the data.

As you can see the data on 'sheet2' is updated. Just read the rows for which you have data by selecting the latest row with data and dragging it, as previously.



We hope this will be useful to you. If not, do not hesitate to let us know.

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