

QUICK ANALYZER

User Guide

Version 5.3

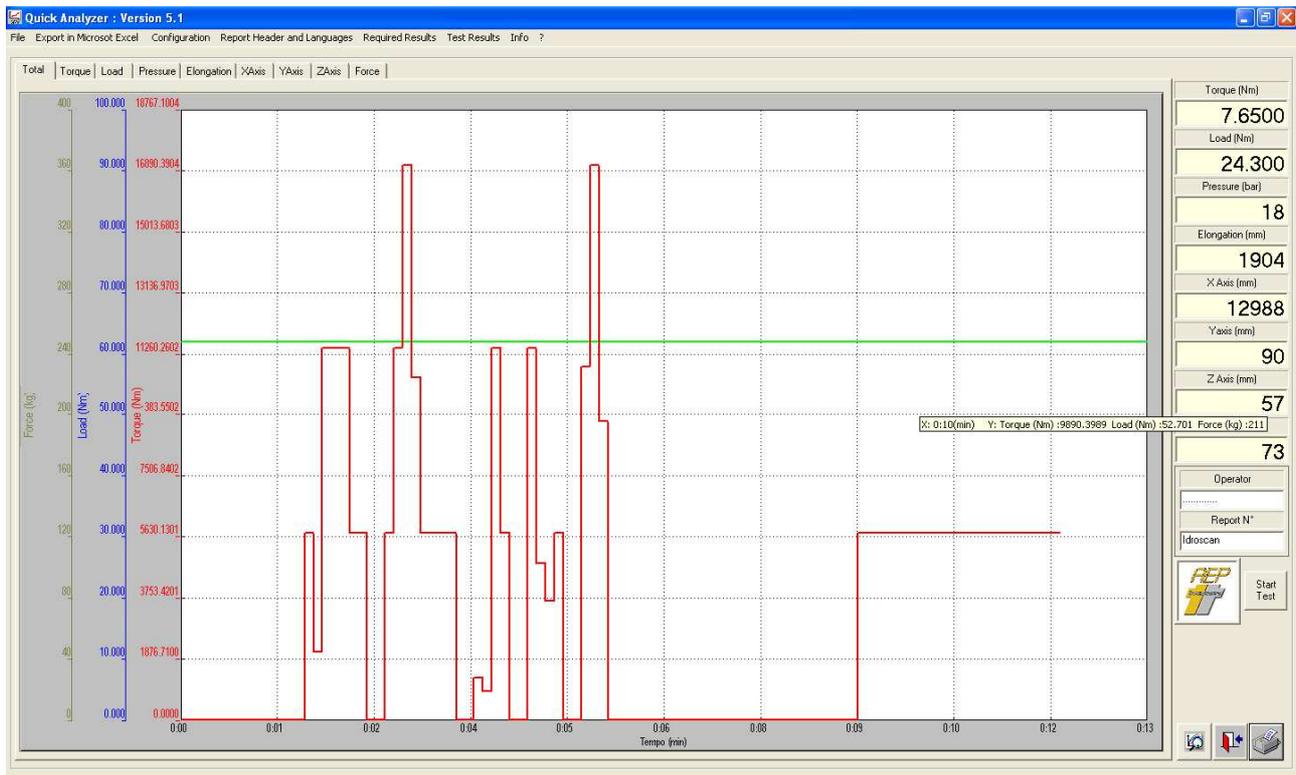
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1.0 Generality

Quick Analyzer is a powerful software that allows to connect any PC in an easy and efficient way to all instrumentations with serial and USB channels

Through a simple configuration of channels and effective setting of the characteristics of sensors which instruments are connected, you can check the status of communication, perform tests, saving curves of the obtained graphs, calculate main results of the test and print the certificates.



It is possible to connect up to 8 instruments on the RS232 or USB line.

If the PC is not equipped with serial channels simply add USB adapters with which the programme is totally compatible.

The curves obtained can be viewed either simultaneously in a single graph respect to the time or to another channel, with different colors and set for easier recognition of same, or individually (respect to the time) for easy analysis of detail of the individual sensor

The Zoom button allows an analysis of extreme detail of a portion of a curve.

To activate this feature click on the icon. Acceptance of the function will appear as the mouse cursor becomes a cross instead of an arrow. With your mouse, click on the graph the starting point of the area of interest and, keeping the mouse pressed, drop it in the end point. The area of interest is highlighted by a dashed rectangle. After enabling the zoom function the relevant icon becomes as shown aside.

Clicking once with the mouse on the chart, you can define more and more restricted areas.

To return to the original click again on the button zoom





Through an immediate menu you can access to all pages configuration program.

Tests can be stored in a proprietary database and called to be viewed and / or printed at a later time.

The program can be configured to manage the main European languages.

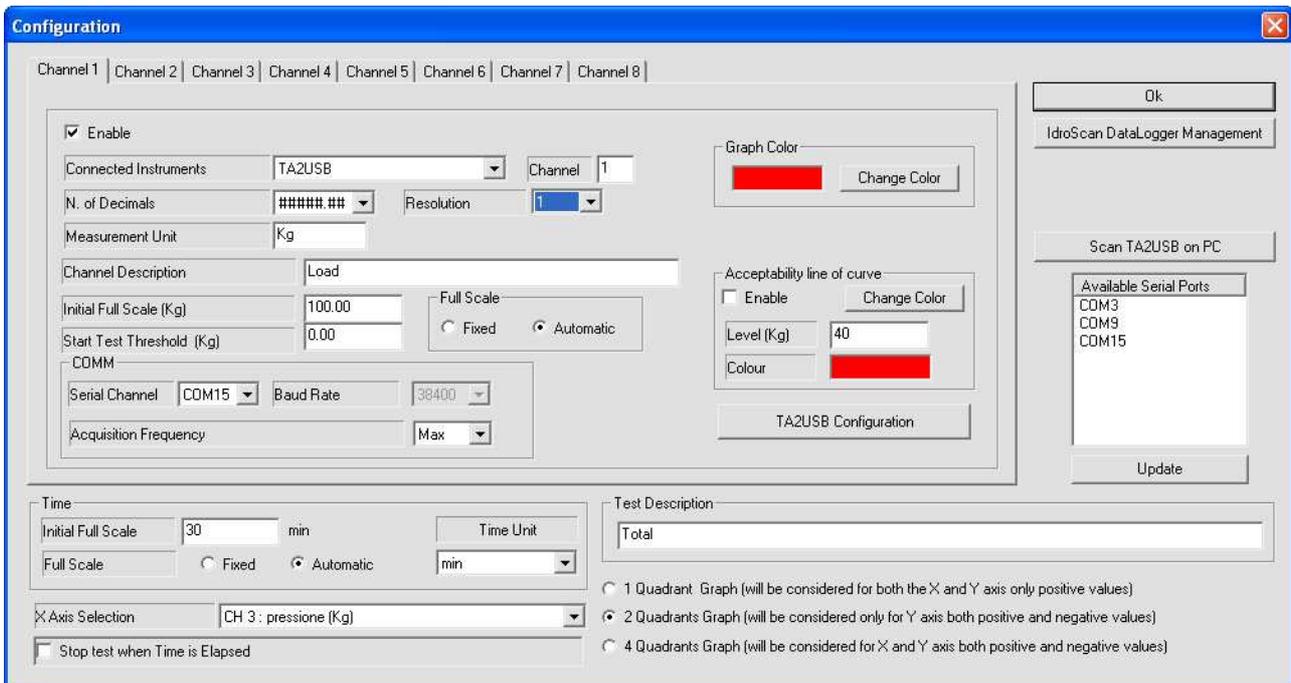
LICENSE AGREEMENT

1. We grant the customer a non-exclusive and non transferable right to use Quick Analyzer software on a single computer and at only one place.
2. The licence holder is not permitted:
 - a) to pass on or otherwise make the software or associated material accessible to third parties without prior written agreement
 - b) to modify the software without prior written consent
 - c) to create works derived from software or to duplicate the written material
 - d) to translate or modify it to create works derived from the written material
- 3) the right of use is dependent on the customer observance of these general conditions of supply

Acceptance of this license agreement is formally required during the installation of the software.

2.0 Channels Configuration

The configuration page provides access to define the characteristics of each channel separately and independently.



Each channel can be enabled or disabled so that the operator can easily define the configuration of the test.

Some parameters relate to the characteristics of the instrument you want to connect.

- **Connected Instruments** : allows, through a drop-down menu, select the instrument you want to connect. In the case of multi-channel instrumentation (eg. MP4) will be required to specify the channel you want to connect to.
- **Serial Channel** : You can specify the serial channel which is connected to the computer. It is possible to verify in the window **Available Serial Ports** the Com ports installed in your computer. Through the button **Update** you can check the com port assigned to any removed/inserted serial channel. Check, in the event of doubt, the page of the channels available in the Windows Control Panel. In the case of TAUSB or TA2USB a dedicated button will be enabled for an automatic search of all TAUSB/TA2USB connected to the PC (see note below)
- **Baud Rate**: This parameter defines the communication data rate with the instrument. This parameter must match the one set on the instrument itself. Check inside the manual of the instrument how to check or possibly how to change the Baud Rate of the instrument

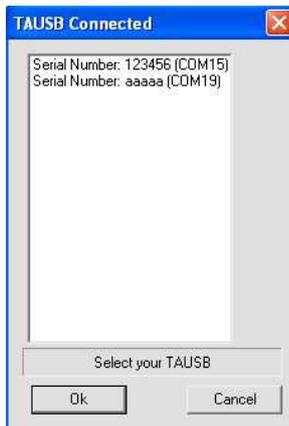
Note

Instruments MP2000- MP2-MP4 communicate with Quick Analyzer with address 00
TA5F communicate with address 01

Note: Scan TAUSB / TA2USB connected to the PC

Scan TAUSB on PC

To facilitate the selection of a TAUSB/TA2USB you can create a list of all TAUSB/TA2USB connected to the PC via the button "Scan TAUSB on PC" or **Scan TA2USB on PC**



A list of all TAUSB / TA2USB connected to the PC will be shown. For each of them the Serial Number and the serial virtual channel assigned by Windows to the instrument will be indicated.

Select your TAUSB / TA2USB and confirm with OK.

In the case of TAUSB/TA2USB the window on the selection of the baud rate is disabled.

The other configuration parameters instead refer to the characteristics of the sensor and setting conduct of the test.

- **Channel Description** : It is a symbolic name to be assigned to the channel for easy identification of the curve. Usually you set the variable associated with the sensor (load, pressure etc.)
- **Measurement Unit** : it defines the measurement unit of the channel
- **N. of Decimals** : Allows you to select how many decimal digits should be shown for the channel
- **Acquisition Frequency**: Determine the time interval between 2 acquisitions. For short-term tests is advisable left set with the default setting "Max". For particularly long tests agrees decrease the time of acquisition to avoid creating too large files. If you select "Max" the actual frequency of acquisition will depend on the characteristics of the instrument and on the set Baud Rate.
- **Full Scale : Automatic / Fixed** : Selecting the Automatic Full Scale the axis of the curve will be sized from time to time to the values actually acquired by the instrument starting from the initial value set in the "Initial Full Scale" parameter. By selecting the Fixed Full Scale the axis is defined by the parameter "Initial Scale Fund" and there will be no auto sizing of the curve.
- **Start Test Threshold** : The Start Test Threshold is, in all respects, a trigger level for the test. This threshold can be set individually for each channel. To not activate a trigger level for a channel, please leave it set to the default value of 0. The value of Start Test Threshold can , of course, be both positive and negative
- **Change Color** : Through this button you can change the color of the curve. The active color is currently shown
- **Resolution (only TAUSB and TA2USB)** : Allow to set the TAUSB / TA2USB resolution among 1-2-5-10-20-50-100

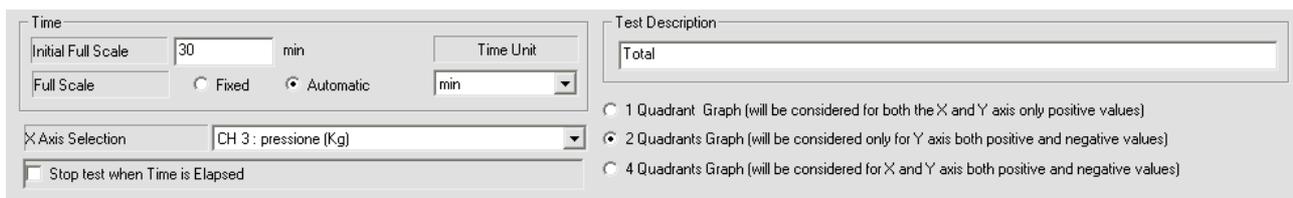
It is possible to define a line of acceptability for each channel. In this way a line will be drawn on the graph and it will be easy to define the region where the curve is above a certain value or not. The parameters relevant for this selection are :

- Enable /or disable the function
- Level : where the curve will be drawn
- Color

The end of the test (similar to Start of the test) can be manual through the STOP button or turning on the switch “Stop test when Time is elapsed” after a time define by the field “Initial Full Scale”.

Some other parameters allow to define the X full scale axis (Time), the time measurement unit among seconds, minutes and hours and a comprehensive description of the test itself.

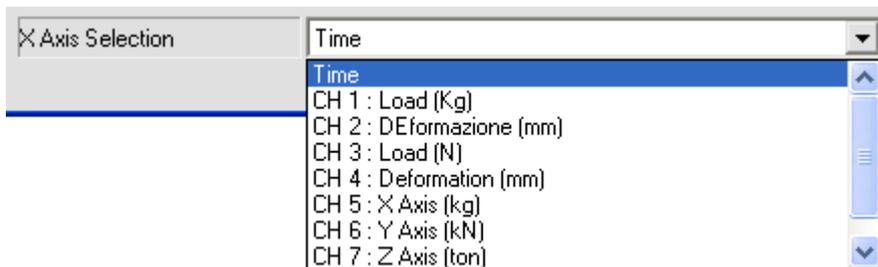
For the X axis it is possible to define the kind of Full Scale between Fixed and Automatic while a further selection allows you to define if you want to select the graph in 1 Quadrant , 2 Quadrants or 4 Quadrants. This allow to show both positive and negative values for both X and Y axis.



The screenshot shows a software configuration window with the following elements:

- Time** section: Includes fields for 'Initial Full Scale' (set to 30) and 'Full Scale', a 'Time Unit' dropdown menu (set to 'min'), and radio buttons for 'Fixed' and 'Automatic' (with 'Automatic' selected).
- Test Description** section: A text input field containing the word 'Total'.
- Axis Selection** section: A dropdown menu currently showing 'CH 3 : pressione (Kg)'. Below it is a checkbox labeled 'Stop test when Time is Elapsed' which is currently unchecked.
- Graph Selection** section: Three radio button options:
 - 1 Quadrant Graph (will be considered for both the X and Y axis only positive values)
 - 2 Quadrants Graph (will be considered only for Y axis both positive and negative values)
 - 4 Quadrants Graph (will be considered for X and Y axis both positive and negative values)

The X axis can be select among time and one of the other enabled channels.



The screenshot shows a dropdown menu titled 'X Axis Selection'. The menu is open, displaying a list of options:

- Time (highlighted in blue)
- CH 1 : Load (Kg)
- CH 2 : DEformazione (mm)
- CH 3 : Load (N)
- CH 4 : Deformation (mm)
- CH 5 : X Axis (kg)
- CH 6 : Y Axis (kN)
- CH 7 : Z Axis (ton)

2.1 IdroScan Data Log Management

The IdroScan instrument has an Datalogger functionality.

Quick Analyzer allows full control of the Datalogger functionality of the instrument and allows to:

- Define the time of acquisition
- Define the duration of the cycle
- Give the Start and / or Stop the Cycle
- Acquire all values and save them to a file
- Display the curve test

These features are extended to all the 8 Quick Analyzer channels and so you can synchronize up to 8 IdroScan in Datalogger functionality and then create and display a curve with all test values.

To activate this feature, you must select in the Configuration page as a Connected Instrument "Data Logger IdroScan".

When at least one instrument "IdroScan Data Logger" is select will appear, at the bottom right of the Configuration page, the button "Set Data Logger IdroScan".

It is recommend, using this feature, to select the Baud rate of the instrument to 38400 to get the data transfer rate higher (check that the instrument is selected with the same Baud Rate)

IdroScan DataLogger Management

Clicking this button you will access to the page "Management Datalogger IdroScan"

For each selected channel its configuration is displayed and during the storage time you can see the time elapsed for the running cycle

At the end of the test it will be enabled the button "DownLoad Logger" and it is possible to acquire the entire curve of the test and save it in a file with the name you want using the button "Save Acquisitions."

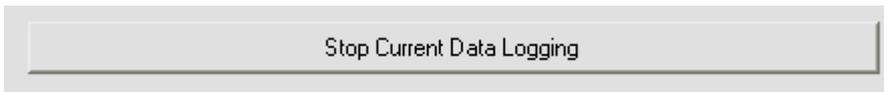
This button is enabled when it is carried out at least a download from an instrument and it is inserted a filename in the dedicated window.

Quick Analyzer can download both the pressure and temperature measured by Idroscan. If you download the temperature, a channel of Quick Analyzer is dedicated to this purpose. To enable this feature, it is required that both channels has been enabled and set as a instrument “ Idroscan datalogger” . By definition, the 2 channels must be consecutive (es: channel 1 and 2 or 3 and 4). The first channel will be assigned to pressure the next to the temperature.

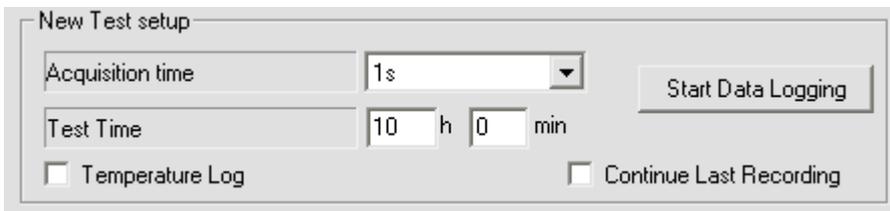
The curve created is effectively managed by Quick Analyzer as a test performed and it is therefore possible

- Display
- Print
- Export to Microsoft Excel

Through the "Stop Current Data Logging" button you can stop the cycle simultaneously on all 4 channels regardless of the settings stored in the end of the test every instrument



If there is no active Datalogging on any instrument, it is enabled the button "Start Data Logging." Based on the test settings a new test will be activated, in a synchronized way and on any instrument,



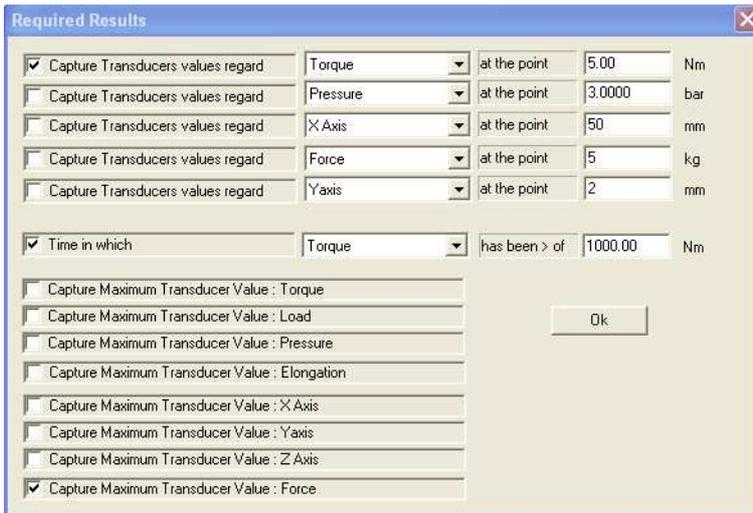
The Test Parameters are :

- Acquisition time : is the time between two acquisition point.
- Test Time : determines the test duration.
- Temperature Log : allow to enable the temperature during the data logging.
- Continue Last Recording : allow to make partial recording (up to 5) inside to the Idroscan (of course in the same parameters conditions)

In case of partial recording during the download of the datalogger will be created a single file with all the recording data and a single file for each partial recording-

3.0 Test Results

It is possible to define some of the main results of the test. These can be set in the "Required Results" page.



Required Results

<input checked="" type="checkbox"/>	Capture Transducers values regard	Torque	at the point	5.00	Nm
<input type="checkbox"/>	Capture Transducers values regard	Pressure	at the point	3.0000	bar
<input type="checkbox"/>	Capture Transducers values regard	X Axis	at the point	50	mm
<input type="checkbox"/>	Capture Transducers values regard	Force	at the point	5	kg
<input type="checkbox"/>	Capture Transducers values regard	Yaxis	at the point	2	mm
<input checked="" type="checkbox"/>	Time in which	Torque	has been > of	1000.00	Nm

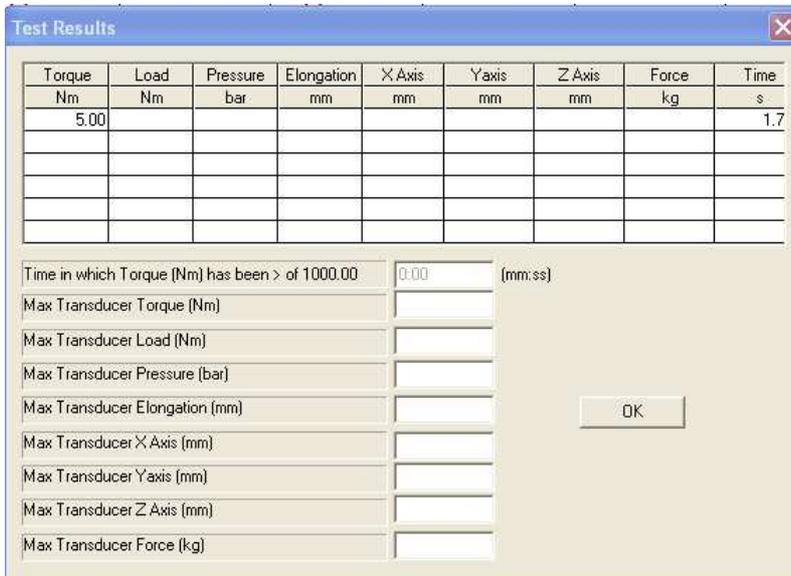
Capture Maximum Transducer Value : Torque
 Capture Maximum Transducer Value : Load
 Capture Maximum Transducer Value : Pressure
 Capture Maximum Transducer Value : Elongation
 Capture Maximum Transducer Value : X Axis
 Capture Maximum Transducer Value : Yaxis
 Capture Maximum Transducer Value : Z Axis
 Capture Maximum Transducer Value : Force

Ok

It is possible to define a point on the curve through the "Capture Transducers values regard" parameter specifying the variable and its associated value.

Quick Analyzer will calculate the values of the other variables at that point. Obviously, it will be considered the first occurrence of variable at that point

It is possible also to specify, with a variable selected, for how long this has remained far above a given value.



Test Results

Torque	Load	Pressure	Elongation	X Axis	Yaxis	Z Axis	Force	Time
Nm	Nm	bar	mm	mm	mm	mm	kg	s
5.00								1.7

Time in which Torque (Nm) has been > of 1000.00: 0:00 (mm:ss)

Max Transducer Torque (Nm)
 Max Transducer Load (Nm)
 Max Transducer Pressure (bar)
 Max Transducer Elongation (mm)
 Max Transducer X Axis (mm)
 Max Transducer Yaxis (mm)
 Max Transducer Z Axis (mm)
 Max Transducer Force (kg)

OK

Finally, each of the variables is possible to calculate the maximum value during the test. At the end of the test by selecting the "Test Results" page is possible to verify the data obtained. The results will be recalculated each time you enter in this page. So you can change the settings required to have results automatically updated.

4.0 Excel Export

It is possible to export curves test in Microsoft Excel for an analysis curves more detailed.

Since the program runs physically Microsoft Excel during the export job it is necessary to have the program installed on your PC to obtain this feature.

The name of the file created will be prompted before to export data.

The format in which the data is exported is represented in the figure below

	A	B	C	D	E	F	G	H
1	Load	t(s)	Torque	t(s)	Pression	t(s)	Elongation	t(s)
2	-0.060	0.014	-15.800	0.000	0,347222	0.000	-10.700	0.005
3	-0.060	0,072917	-16.300	0.004	0,347222	0.007	-11.000	0.010
4	-0.060	0,128472	-17.000	0.008	0,347222	0.014	-11.300	0.013
5	-0.060	0,177083	-17.600	0.012	0,416667	0.021	-11.600	0.017
6	-0.060	0,215278	-18.400	0.016	0,416667	0.028	-11.900	0.020
7	-0.060	0,285417	-19.200	0.020	0,416667	0.035	-12.100	0.025
8	-0.060	0,329861	-20.000	0.024	0,347222	0.042	-12.300	0.030
9	-0.060	0,386111	-20.900	0.028	0,416667	0.049	-12.600	0.033

For each test curve are defined two columns respectively Y axis and X axis (time).

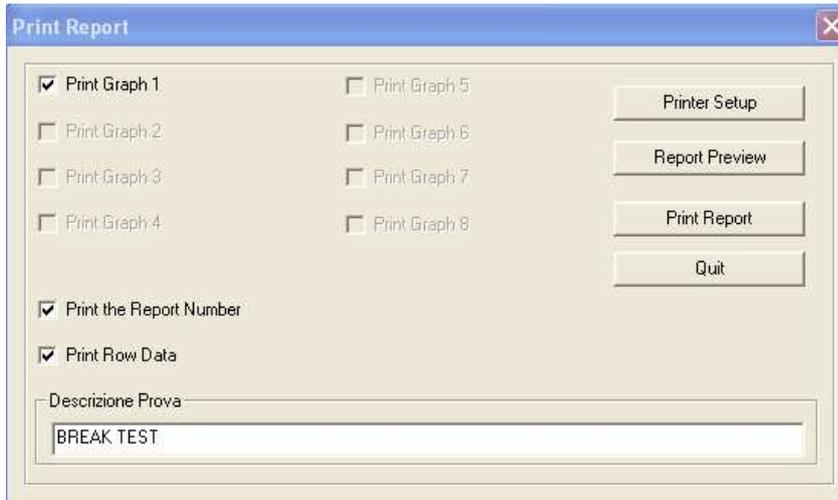
The time axis is repeated for each curve because to the Quick Analyzer could be connected instruments for each channel, so you can have time acquisition time for single pair of points.

To do a proper export to Excel, you must have set in the settings of the Windows the character '.' as decimal separator.

To do this you must go to the Windows Control Panel, select International Settings and set the character '.' as decimal separator.

5.0 Report

Entry to the printing of test report through a dedicated button. It is possible to configure what you want to print according to the figure below



Each curve can be printed individually or through a chart total.

It is also possible to enable / disable each curve.

The function of Report Preview lets you verify the report before being sent physically Print

Enabling "Print Row Data" will be print all the acquisition

points of the curve.

This function is enabled only if you are printing 1 channel a time or when the function "Print the enabled Graph on the same Graph" is enabled.

The certificate may be registered according to the own company brand and / or by 3 lines of text headers.



To add a new brand just copy it in the "Loghi" folder (inside the installation folder in the program) the relative file. This must be in a bitmap format (max dimension 1500x500 point).

To select it just select it as the active brand on the page "Report Header and Languages"