

The software **WinTest1** manages the serial communication with some of the **LR-Cal** digital instruments with internal battery.

It allows to create and archive test graphs, to export data to Microsoft Excel and to manage basic serial commands to the instrument connected.

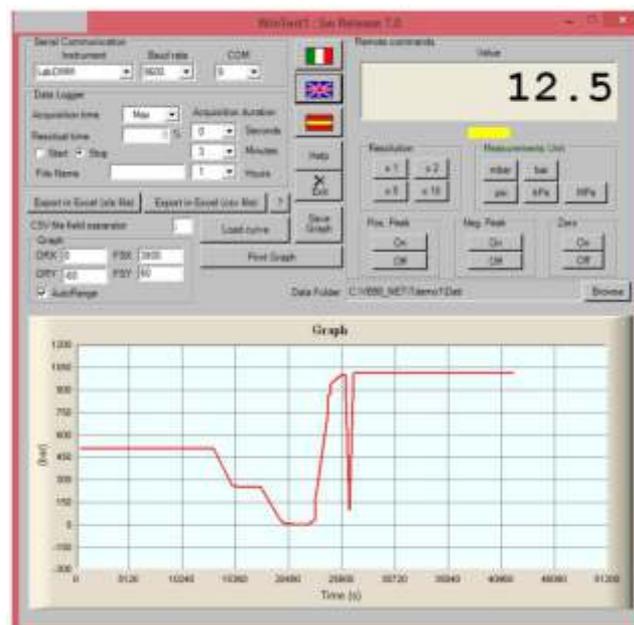
IMPORTANT:

If you use the serial communication to your PC/Laptop with an USB/RS232 converter, first of all you have to install the driver software of your converter!

After install of the software, you have to select the instrument, connected to your PC/Laptop. Please use following „conversion table“ for choosing the right instrument:

Selectable Instruments **Connected real instrument**

- DFI
- DFIF
- BTR select this in case of a BTR, versions before 2009
- DTR select this in case of a DTR, versions before 2009
- **DFP** select this in case of a **LR-Cal DFP** instrument
- DNA
- **LabDMM** select this in case of a **LR-Cal TLDMM** instrument
- **BIT02** select this in case of a **LR-Cal TLDMM-A01/-A02**, versions **before 2009**
- **BIT02B** select this in case of a **LR-Cal TLDMM-A01/-A02**, versions **after 2009**
- PGE
- DTRB select this in case of a DTR, versions after 2009
- BTRB select this in case of a BTR, versions after 2009
- IDROSCAN
- DFX
- DFXFast
- **JET** select this in case of a **LR-Cal LDM 80** instrument
- **BTR2** select this in case of a **LR-Cal LFC 80** instrument



- In the Serial Communication window select :
 - o **Instrument** : Select the connected instrument
 - o **Baud rate** : Select the baud rate at which the instrument is transmitting
 - o **COM** : Select the serial communication port to which the instrument is connected
- The **Remote Commands** Window displays the data received from the instrument and allow to perform some operations on the instrument through direct serial control buttons (keys: Zero, Peak, resolution, etc.).
- In the Window **Data Logger** you can select some parameters to run, store, create the graph of a test:
- **Acquisition Time** (50mS ÷ 24h): This is the time interval between two or more data storage, if you choose **Max** the program stores the data as fast as possible. If you choose **Manual** it will appear the button **Save Point** . A measurement point will be stored any time you press **Save Point**.
- **Acquisition Duration** (Seconds, minutes, hour): define the duration of the test. It is not active with Acquisition time set to Manual.
- **File Name** : where to save received data. If the file name box is empty the data will not be saved to file but you can also see anyway the graph

The **Start button** starts the recording and the **Stop button** stops the recording.

The files are saved in the folder selected in the field **Data Folder** that you can change using the button **Browse**. By default the Data Folder is set in the folder "Data" placed inside the installation folder.

Any records consist of three fields : sequential number, data received by the instrument, time.

The graphics window allows the setting of the parameters of real-time graphic. The X-axis is the time while the Y axis is the output of the instrument

- **XOR**: defines the starting point of the X axis
- **FSX**: defines the full scale of the axis X. FSX should be greater than ORX
- **ORY**: defines the starting point of the axis Y. This can also be a negative number
- **FSY**: defines the full scale of the axis Y. Can also be a negative number. Obviously the only condition is that FSY > ORY

If you set the selection **Autorange** the chart will auto size during the test by comparing the actual values as specified. During the test parameters ORX, ORY, FSX, FSY are allowed to select portions of the graph of interest.

Graphs saved can be re-analyzed by using the "**Load Curve**" button. More than a chart can be selected to make comparisons between different tests. Curves are displayed with different colors.

The scale will automatically adapt to the maximum values recorded in the tests if the active function **Autorange**

It is always active the zoom function. To activate, simply click on the chart with the left mouse button and define the portion of the chart concerned.

To return to the initial condition is sufficient to confirm the value in one of the 4 parameters ORX, ORY, FSX, FSY.

The image of the graph can be saved as .Bmp file through the **Save Graph** key, or printed directly via the **Print Graph** button.

It is also possible to perform an export of data collected in a Microsoft Excel file with the button **Export to Excel**. This feature is only available when Microsoft Excel is installed on your computer. Any way it is possible to export data in Excel as .csv file. In this way it is not necessary to have Excel installed on your PC.

The buttons with the flags (Italian , English and Spanish) choose the language.