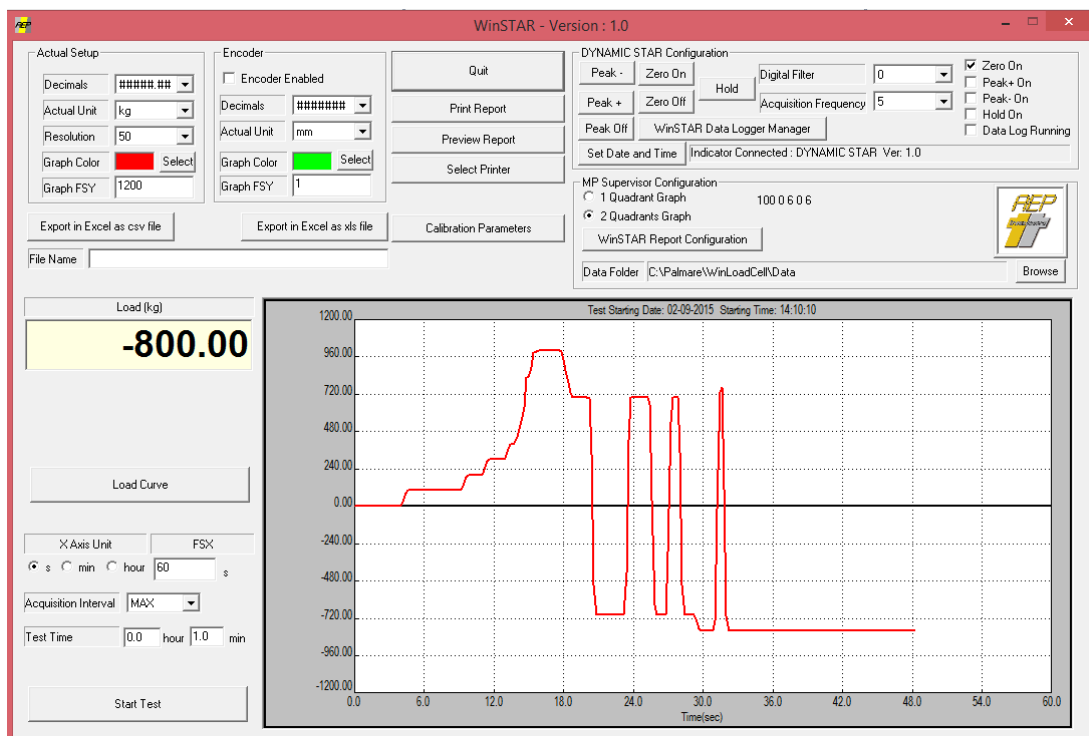


WinSTAR

USER GUIDE

Ver. 1.0



WinStar allows you to communicate with the Dynamic STAR instrument easily and friendly using the USB port. It is possible to connect just one instrument a time.

WinStar main features are:

- Makes graphs test acquiring data at the maximum speed (up to 19200 Hz). Curve can be saved and reviewed later.
- Allows to Export acquired data to Microsoft Excel (from real time cuve or DataLogger)
- Allows to Print Reports with custom logo as report header
- Allows to download internal Datalogger and shows it as curve graph
- Allows you to change easily the calibration parameters of the active channel
- Allows to change most of the Dynamic STAR (Filter, Unit, decimal point etc, date and time etc)

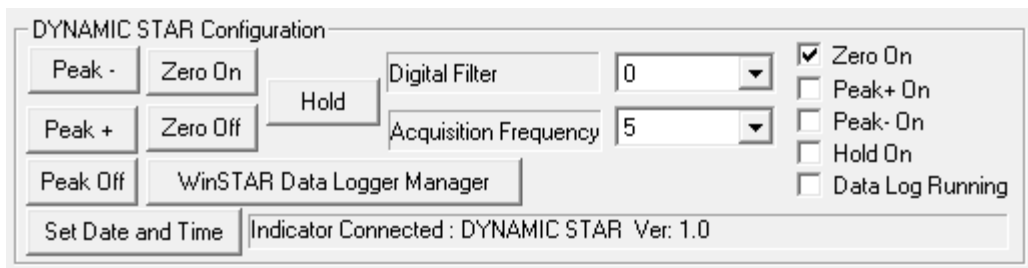
MAIN PAGE

In the main page you have most of the feature you need to use your Dynamic STAR instrument.

The software automatically connect to the instrument using the USB port, download the Dynamic STAR actual configuration and at the end displays the acquired value .

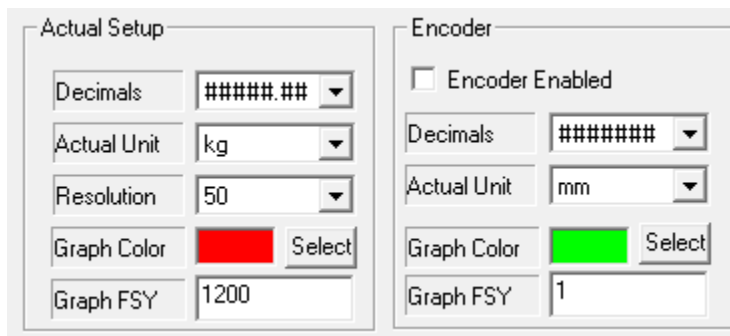
Some buttons allow you to perform the main commands like ZERO ON/OFF , PEAK mode , HOLD mode.

The **Set Date and Time** button allows to set, just pressing it, the current date and time of your computer directly on the Dynamic STAR

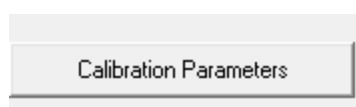


Another window allows to set some important parameters for each channel like:

- The enable state of the encoder channel
- The decimal point position
- The actual unit
- The resolution
- The curve color in the graph
- The FSY value for the channel



The **Calibration Parameters** button gives access to the Calibration Page for the channel (see the dedicated paragraph).



START TEST

It is possible to create real-time tests

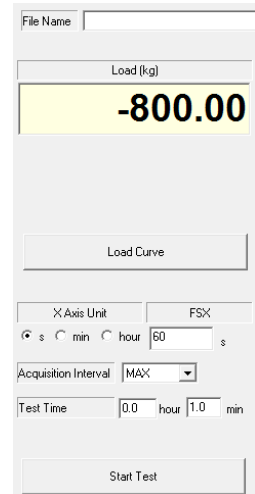
To setup a test you are required to define only two test-parameters.

- **Test Time:** defines the time the test will last (in hour and minutes).

The test can be stopped any way by pressing the **Stop** Button

- **Acquisition Interval:** defines the time between two acquisition points. Setting MAX the acquisition interval is equal to the acquisition frequency set for the channel.

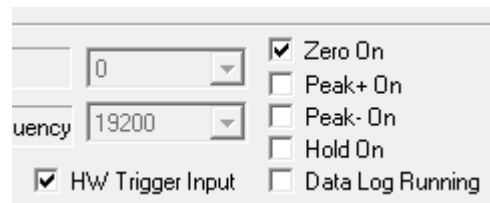
By pressing the **Start Test** button, WinSTAR start to record all the acquisition points creating raw data.



The effective acquisition is conditioned by the trigger setting inside the datalog management page.

The trigger can be :

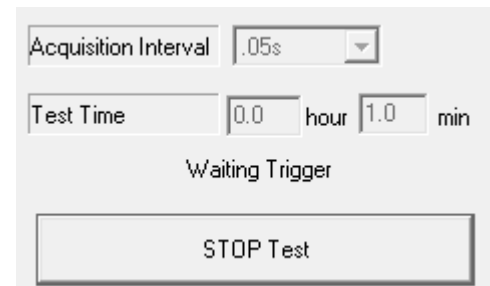
- No trigger: The test Start automatically as soon as the Start Test button is pressed
- Hw : the test start when the Dynamic STAR trigger will occur (see the Dynamic STAR manual). The status of the Hw trigger is shown in the main page
- Sw : the test start when is detected a load (in absolute value) greater then the threshold value set in the datalog management page.



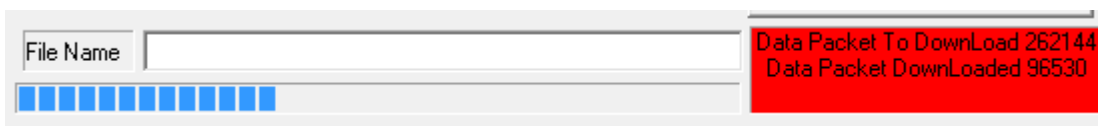
When the Start test button is pressed and the trigger is not occurred yet the message **Waiting Trigger** will appear just above the STOP test button.

Up to the acquisition frequency of 1200 points per seconds the graph is created in real time while for greater frequencies the whole curve is downloaded at the end of the test automatically.

Any way during the test a curve graph is created but not all the acquisition points are shown.



The downloaded process is shown. The download time can take up to 1min and 45s when the whole internal memory is used.



The Dynamic STAR internal memory can store up to 262144 acquisition points (161077 in case the Encoder channel is enabled).

For an acquisition frequency of 19200 Hz this is useful for a test time of 13s. For the other frequencies see the table 1. So when acquisition frequencies greater then 1200Hz are used the maximum test time is limited by the size of the internal memory.

Any way using the Trigger mode (Hw or Sw) it is possible to start the acquisition curve when needed.

In case the Encoder channel is used the maximum test time are halved (see table 1)

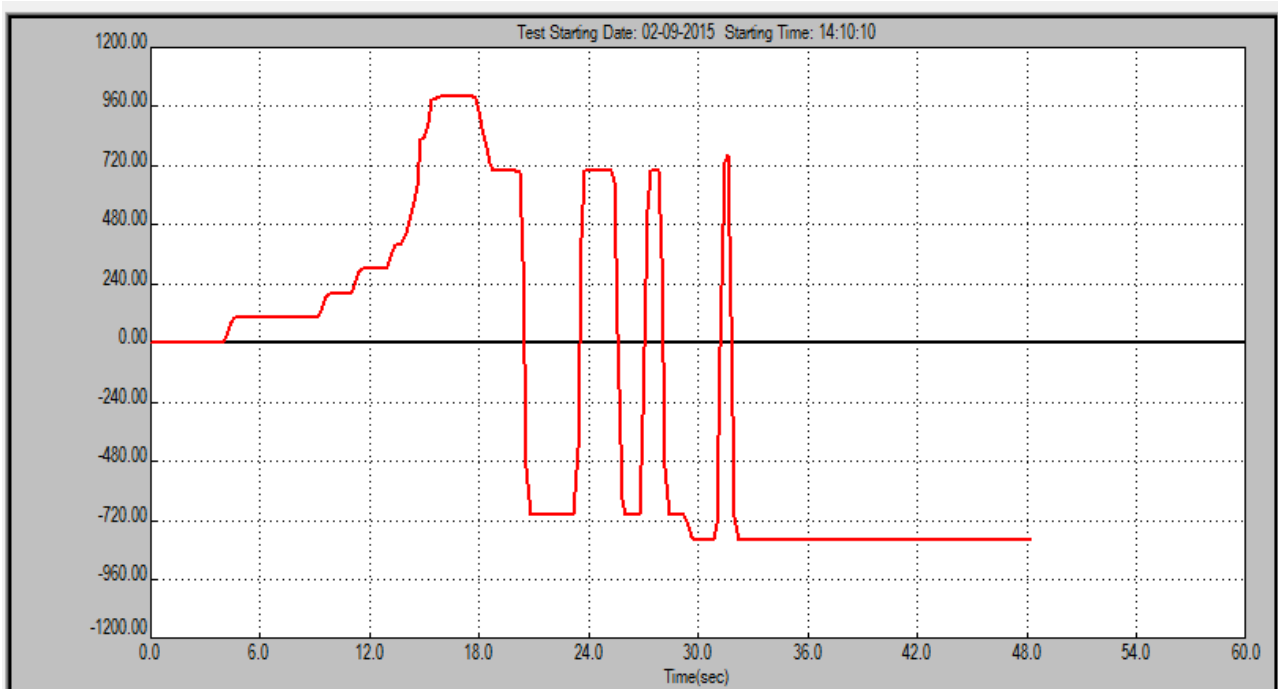
Acquisition Frequency	Test Time (sec) with Encoder Channel Disabled	Test Time (sec) with Encoder Channel Enabled
19200	13s	6.5s
14400	18s	9s
7200	36s	18s
4800	54s	27s
2400	109s	54s

Table 1

Of course this limitation does not applies in case of acquisition frequencies lower then 2400Hz because the curve is acquired in real time without using the internal memory of Dynamic STAR.

At the end at the programmed test time or by **Stopping** the data recording manually by using the STOP button, data will be stored in a text file in the folder **Data** present inside the installation folder with the filename assigned inside the field **File Name**.

The graphics window allows the setting of the parameters of real-time graphic. The X-axis is the time (with the unit assigned inside the field **X Axis Unit**), while the Y axis is the output value of the instrument for each channel.



FSX : defines the full scale of the axis X .

Graph FSY : defines the full scale of the axis Y for each channel.

Graphs saved can be re-analyzed by using the "**Load Curve**" button. You can choose the folder where data are saved selecting the Data Folder using the **Browse** button

Channel curves are displayed with different colors.

The scale will automatically adapt itself to the maximum values recorded in the tests .

It is also possible to perform an export of the 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.

NOTE : To Export data in Microsoft Excel you must have this program installed on your PC

If you save to export data in Excel using the csv file format it is not necessary to have Excel installed on your PC.

Using the buttons **Print report** or **Preview Report** it is possible to print a test report.

Using the button **Select printer** you can choose the printer where to address your printout.

Using the **Report Configuration** button it is possible to define the Logo, the report header (up to 3 lines of free text) the operator , notes, and the graph title.

Report Header Configuration Page

MP Supervisor Report Header

Graph Description

Operator

Note

In this field you can insert note to explain the test

Help For Note

These note will be printed on the report. Please, to insert a new Line in the Note Field press, at the same time, : CTRL+ ENTER Max 5 rows

Report Header

1° Row Header AEP transducers

2° Row Header via Bottego 33/A

3° Row Header Cognito Modena (Italy)

AEP2.BMP

AEP transducers

Quit

Here is an example of the **Report Header configuration Page**

It is possible:

- Insert a Graph description
- The operator name
- Up to 5 rows for insert note to describe the test
- Up to 3 text rows dedicated to the custom header address data
- The logo image can be select.

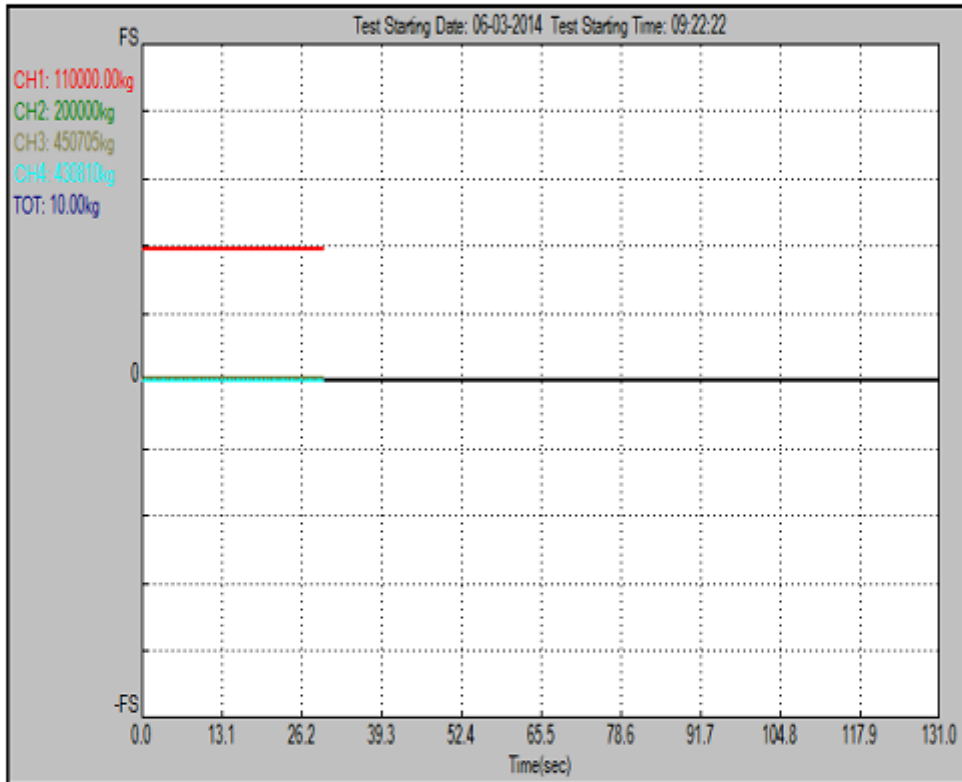
To add a new brand logo just copy in the “Loghi” folder (inside the installation folder of the program) the relative image file . The file must be in a bitmap format (max dimension 1500x500 point). To select it please choose the image in this page.

Report Example



AEP transducers

via Bottego 33/A
Cognento Modena (Italy)



Note:

In this field you can insert note to explain the test

Operator :

Time : 9:02

Date: martedì, aprile 21, 2015

Data Logger Management Page

Dynamic STAR allows to download the internal datalogger cycle and allows to select easily all the parameters to Start /Stop a new cycle.

For the meaning of the parameters please refer to the Dynamic Star Manual

To Start a cycle please select the **Time Duration** using the Day-Hours-Min-Sec fields and the acquisition interval in the **Storage Interval** window. You can also define a trigger for the start of the Datalogger using the **Start Threshold** window. (see the Dynamic STAR manual for the meaning of the parameters).

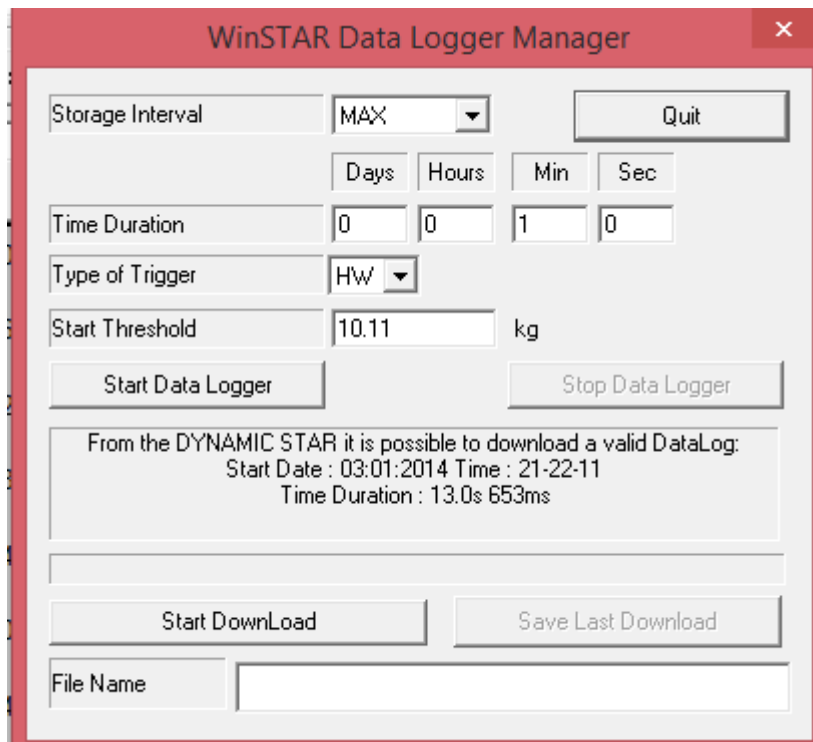
When all parameters are set, press **Start DataLogger** to start the cycle.

If a datalogger cycle is active you can manual stop it by using the **Stop DataLogger** cycle

To download a datalogger cycle press the **Start Download** button.

When done the acquisition points can be saved as a file. Insert a valid Windows filename in the **Filename** field and press **Save Last Download**.

In the main page the acquisition points are immediately shown as a curve and can be printed and exported in Microsoft Excel.



The screenshot shows the WinSTAR Data Logger Manager window. The interface includes the following elements:

- Storage Interval:** A dropdown menu set to "MAX" and a "Quit" button.
- Time Duration:** Four input fields for Days (0), Hours (0), Min (1), and Sec (0).
- Type of Trigger:** A dropdown menu set to "HW".
- Start Threshold:** An input field containing "10.11" and the unit "kg".
- Control Buttons:** "Start Data Logger" and "Stop Data Logger".
- Status/Info:** A text box displaying: "From the DYNAMIC STAR it is possible to download a valid DataLog; Start Date : 03:01:2014 Time : 21-22-11 Time Duration : 13.0s 653ms".
- Download/Save Buttons:** "Start DownLoad" and "Save Last Download".
- File Name:** An input field for saving the downloaded data.

Calibration Page

The screenshot shows a software window titled "DYNAMIC STAR Calibration Page" with a red border and a close button in the top right corner. The interface is organized into several sections:

- Type:** A dropdown menu set to "Force".
- Capacity:** A text input field containing "1000.00" and a unit dropdown menu set to "kg".
- Decimals:** A dropdown menu set to "#####.###".
- Transducer Sign:** Two radio buttons, "Standard" (selected) and "Inverted".
- Sens+:** A text input field containing "2.00000".
- Sens-:** A text input field containing "2.00000".
- Encoder SetUp:** A sub-section containing:
 - Type:** A dropdown menu set to "Linear".
 - Sensibility:** A text input field containing "1000.00000".
 - Unit:** A dropdown menu set to "mm".
- Uscita:** A button located at the bottom right of the window.

The Calibration page allows you to enter all the parameters you need for the channels calibration.

For the meaning of the parameters please refer to the Dynamic STAR manual

This page is password protect. The password is **6502**