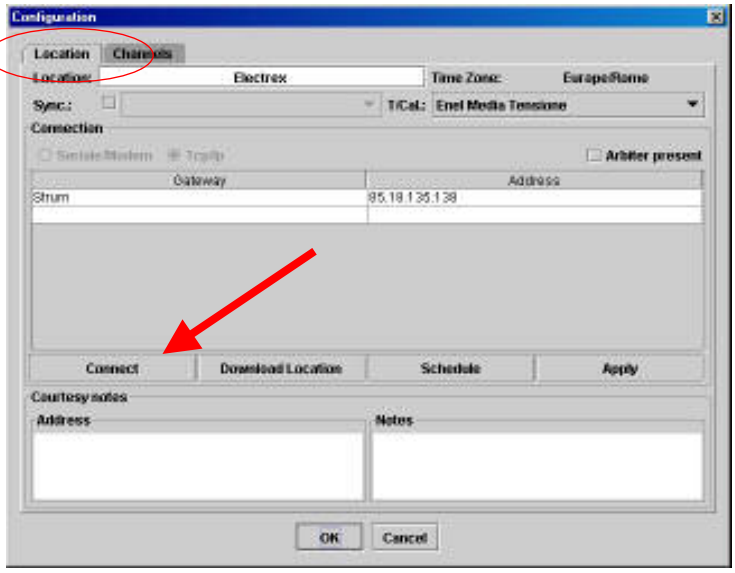
New functions implemented in Energy Brain version 4.0

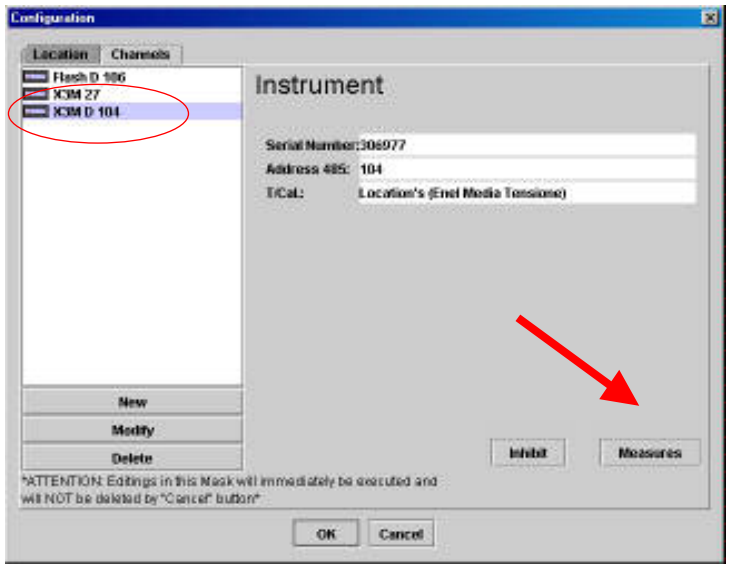
On-line readings display — *for instruments type X3M, X3M-D Flash N, Flash-D, Fast*

In order to view the on-line readings supported by the meters, proceed to the configuration window likewise done when configuring the instrument and:

- connect the location



- select the channel to view

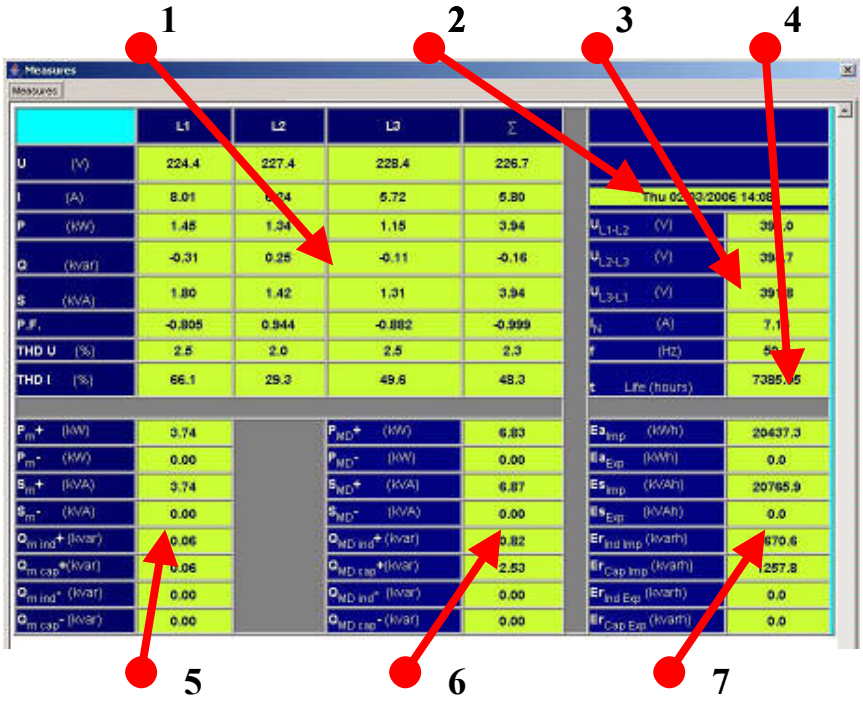


- Click the 

button

The following readings page is prompted showing the complete set of readings transmitted by the selected instrument.

The readings are grouped into sections as below indicated:

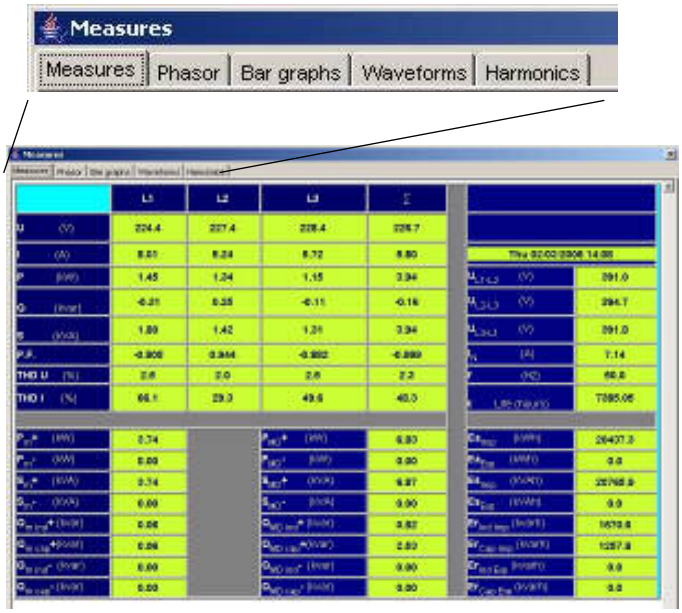


1. Readings of a three-phase 4-wire system. For instruments with different wiring configurations the non-applicable readings (example: phase-neutral voltages for a 3-wire configuration) are shown as "NaN" (Not a Number) per Modbus standards.
2. Instrument Date/Time.
3. Complementary readings.
4. Instrument lifetime.
5. Average power (rolling average) values on the 4 quadrants. For instruments set to import mode only, the non-applicable readings are shown as "NaN".
6. Maximum Demand values on the 4 quadrants. For instruments set to import mode only, the non-applicable readings are shown as "NaN".
7. Energy values on the 4 quadrants. For instruments set to import mode only, the non-applicable readings are shown as "NaN".

On-line readings display

for instruments type X3M-H, X3M-DH Flash-NH, Flash-DH and X3M, X3M-D Flash-N, Flash-D (with FFT Harmonics option)

The readings page for these instruments, prompts additional folder tabs, enabling to view additional readings pages and on-line graphs as indicated.

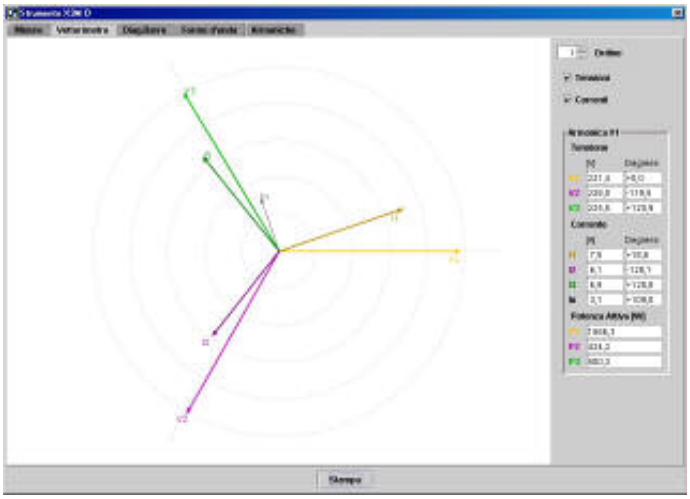


On line readings

Vectors

Harmonics order and vector (voltage/current) selection is made by the upper-right check boxes.

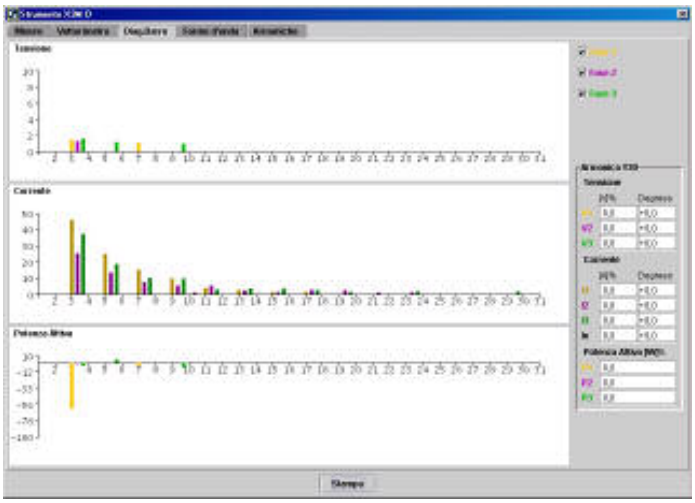
The applicable values show on the readings field on the right.



Harmonics bar graphs

Phase selection is made by the upper-right check boxes. The applicable values show on the readings field on the right.

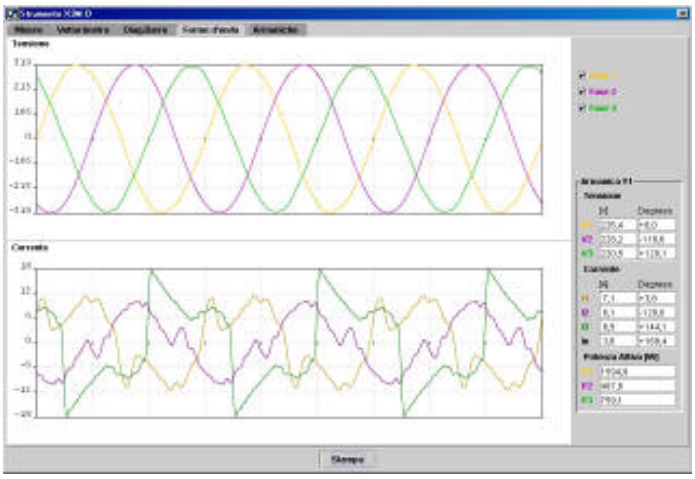
NB.
In 3P-3W and in 3P-3W-BAL wiring configuration, the readings of harmonic powers are not available.



Waveforms

Phase(s) selection is made by checking the relevant boxes on the right. The applicable values show on the readings field on the right.

NB.
In 3P-3W and in P-3W-BAL wiring configuration, the readings of harmonic powers are not available.



Harmonics readings

NB.
In 3P-3W and in P-3W-BAL wiring configuration, the readings of harmonic powers are not available.

Click the **Event Configuration** button to modify the parameters that discriminate/trigger the data logging of the Events service.
The meaning of the Description fields is as follows:

Voltage Dip/Sag & Undervoltage Threshold
Events log-on for voltage values below setpoint (in V)

Voltage Dip/Sag & Undervoltage Restore Threshold
Events log-off for voltage values above setpoint (in V)

Voltage Dip/Sag Max Duration
Events with duration (in number of cycles) below setpoint are logged as *Voltage Dip/Sag*; events with duration above setpoint are logged as *Undervoltage*.

Voltage Swell & Overvoltage Threshold
Events log-on for voltage values above setpoint (in volt)

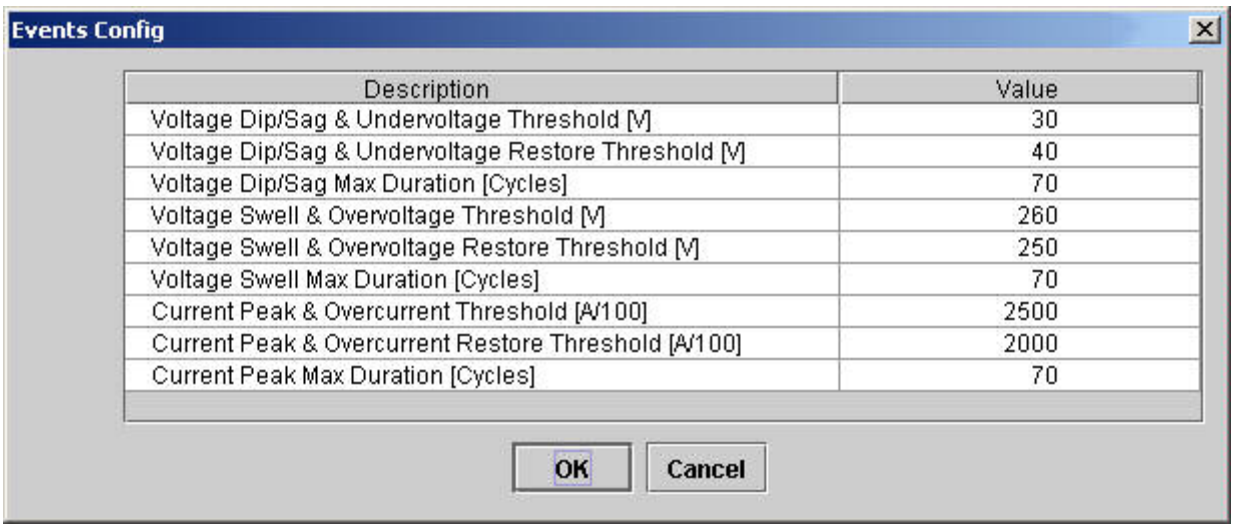
Voltage Swell & Overvoltage Restore
Events logoff for voltage values below setpoint (in volt)

Voltage Swell Max Duration
Events with duration (in number of cycles) below setpoint are logged as *Voltage Swell*; events with duration above setpoint are logged as *Overvoltage*.

Current Peak & Overcurrent threshold
Events log-on for current values above setpoint (hundredths of A)

Current Peak & Overcurrent restore threshold
Events log-off for current values below setpoint (hundredths of A)

Current Peak Max Duration
Events with duration (in number of cycles) below setpoint are logged as *Current Peak*; events with duration above set point are logged as *Overcurrent*.



Modification of the setpoints can be operated as follows:

1 overwrite the required setting(s) in the Value fields on the right.

2 confirm the new entries by pressing the "Enter/Return" key of your PC.

3 click the **OK** button to transfer the new settings to the instrument and to exit the Events Configuration window.
