

# NG-Gateway – Tutorial 6

## Historical and instant data visualization

### 1. Introduction

NG-Gateway offers simplified visualization of real time and historical data, depending on the purchased version.

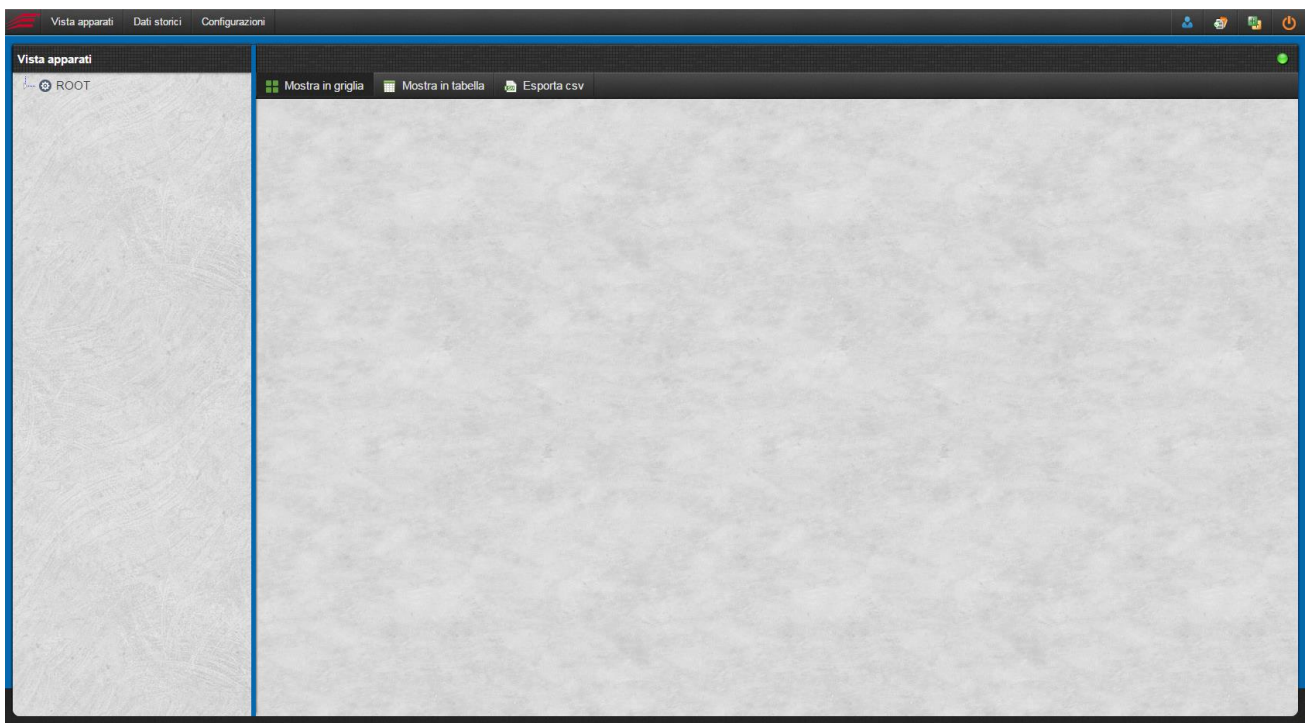
In data logger and Mini web server modes, NG-Gateway web interface offers a real time visualization of the devices connected and configured in the system.

In data logger mode, we can consult historical data of only one day at the time, whether, Mini web server mode offers the visualisation of data up 1 months' worth.

Let's take a look on these two kind of views.

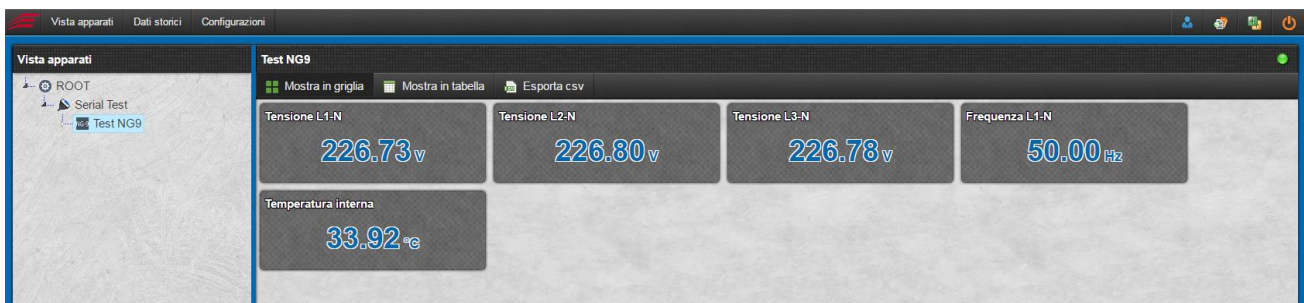
### 2. Device view

Access the web interface and select *Device view* from the main toolbar.



In the left column, there is the device and channels tree. Expand the tree (clicking on the specific white arrows) and double click on a device to visualize in the right column the real time acquired measure. We can visualize only five channel at the time. Furthermore, if you want to visualize a channel that is not in the device tree, you need to configure it on the device channel list first, through the device configuration procedure.

Double click on a device to view the real time measures.



In the right column, in the real time data view area, there is a toolbar with three buttons.

- *shows as box* is selected by default and offers the possibility to visualize data in a grid composed by grey boxes. Real time values appear in blue. Shouldn't real time data be available, the system will show the last available ones in red;
- Click on *shows as a table*, to have the system rearranging real time data visualisation into a chart; every measure represents the value taken on the last request.

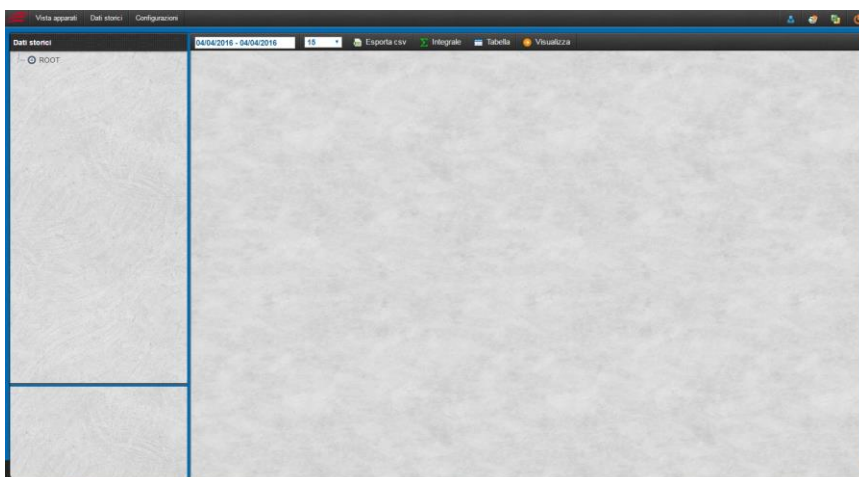
The screenshot shows the 'Vista apparati' window with a sidebar containing 'ROOT', 'Serial Test', and 'Test NG9'. The main area displays real-time data for 'Test NG9' in a table layout. The data is as follows:

Misura	Valore	Ultimo aggiornamento
Tensione L1-N	226.03V	04/04/2016 11:49:44.664
Tensione L2-N	226.14V	04/04/2016 11:49:44.664
Tensione L3-N	226.16V	04/04/2016 11:49:44.664
Frequenza L1-N	49.98Hz	04/04/2016 11:49:44.664
Temperatura interna	34.11°C	04/04/2016 11:49:44.664

- *Csv export* button allows you to download a csv file containing data visualized in the instant of the action.
- On the right upper corner of the window, a small coloured ball shows current reading state. If this ball is green the communication it's happening successfully. If the data reading is faulty, the ball will turn red.

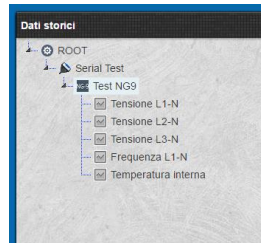
### 3. Historical data

Select *History data* from the main toolbar.

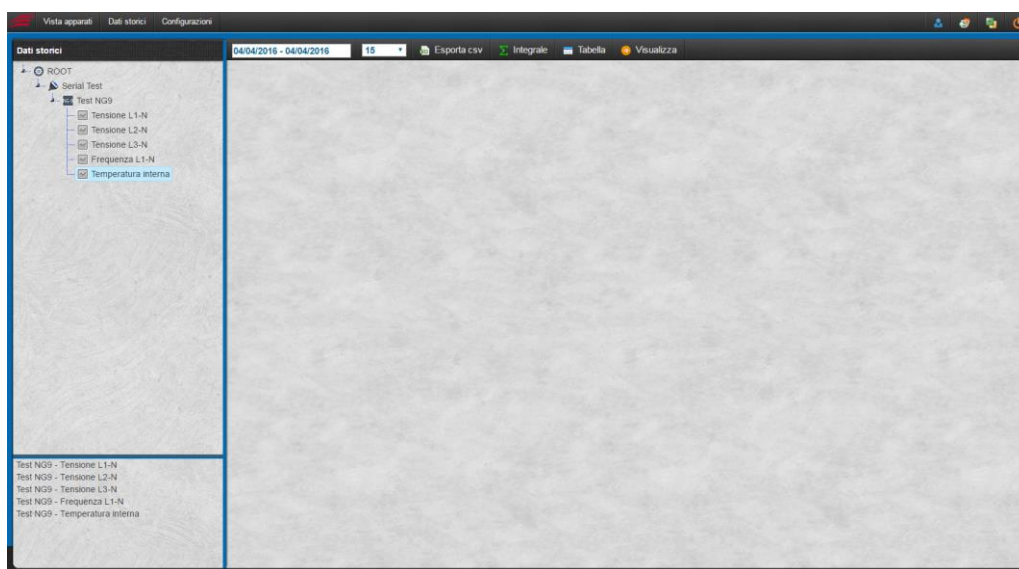


The left hand side column is divided into two sections. The upper one contains the device tree from which to select the channels to visualize. The other one, the Channel list, will be populated every time we select any of the channels from the device tree.

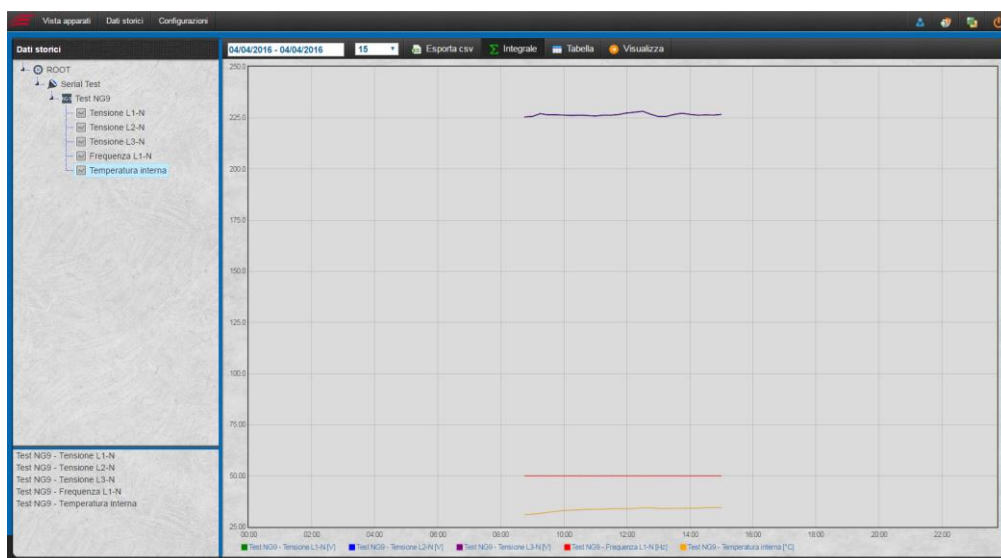
The right hand side column is dedicated to historic data visualization.



Select at least one channel from the device tree. The channel will appear on the channel list below.



Select *View* from the toolbar to show the selected channels inside the area.



At first, data will appear in a graphic visualization. Below the graphic, there will be the channel's legend. Every channel will appear in a different colour, both in the graphic, and in the legend. A maximum of five channels can be viewed at the time. Double click on the channel's name on the legend will exclude it from the view.

The graphic's X axis, represents time as per the chosen visualisation. In data logger mode, the only time schedule possible will be within the 24 ours of the day.

The graphic's Y axis, represents a range of values automatically generated by the system depending on the selected channels. Click on the Y axis label to set minimum and maximum full-scale values.

Click *Table* to view all data into a chart recap.

Data	Test NG9 - Tensione L1-N [V]	Test NG9 - Tensione L2-N [V]	Test NG9 - Tensione L3-N [V]	Test NG9 - Frequenza L1-N [Hz]	Test NG9 - Temperatura interna [°C]
Valore minimo	225.43	225.51	225.50	49.97	31.12
Valore massimo	228.24	228.31	228.30	50.02	34.55
Valore medio	226.51	226.58	226.57	50.00	33.57
Totale/Integrale	-	-	-	-	-
04/04/2016 00:00					
04/04/2016 00:15					
04/04/2016 00:30					
04/04/2016 00:45					
04/04/2016 01:00					
04/04/2016 01:15					
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04/04/2016 03:30					
04/04/2016 03:45					
04/04/2016 04:00					
04/04/2016 04:15					
04/04/2016 04:30					

The first 4 rows of the table, show Minimum Value, Maximum value, Average and Total value within the selected period of time.

Click *CSV export* to download a csv file containing the selected measure.