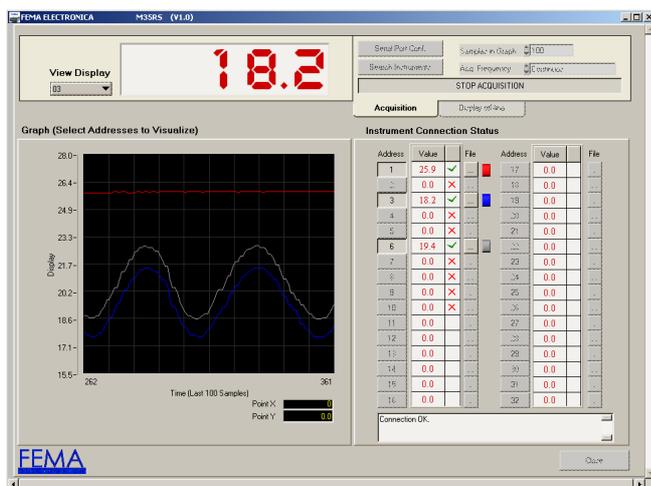


# Series MAG-35

## PANEL METERS

### SOFTWARE M35\_RS

ACQUISITION SOFTWARE FOR MAG-35  
INSTRUMENTS WITH DIGITAL OUTPUT RS232 OR  
RS485



ACQUISITION SOFTWARE for MAG-35 instruments, allows to receive the display values of the panel meters, to visualize the values on the PC screen both in display and graph format, and to store the received data inside «.txt» files for further processing. For MAG35 instruments with options RS2 or RS4 for serial retransmission (RS232 or RS485)



FEMA ELECTRÓNICA, S.A.

USER'S MANUAL  
(HT130607-r130607)

# Software M35\_RS

The M35\_RS software allows the acquisition of the display values of up to 32 MAG-35 instruments, with mounted transmission options RS2 or RS4.

The M35\_RS software allows the visualization in graphical mode of the acquired values while being acquired, and stores the acquired data inside «.txt»

files, for further processing with spreadsheets or similar applications.

The M35\_RS software is free and provided to be used in applications with MAG-35 instruments, it runs under Windows-XP operating systems and it can be downloaded from the web site [www.fema.es](http://www.fema.es).

## Main Window

Once installed, the main window of the M35\_RS software is divided in several sections :

### «Instrument Connection Status»

Information relating the connection status of the instruments, selection of the instruments to be displayed on the graph, change the file names for data storage, visualizes the actual value of the instrument's display, and informs the color used on the graph for each instrument. The bottom box visualizes the messages of the system.

### «Graph»

Visualizes the acquired data in graphical mode for the selected instruments.

### «View Display»

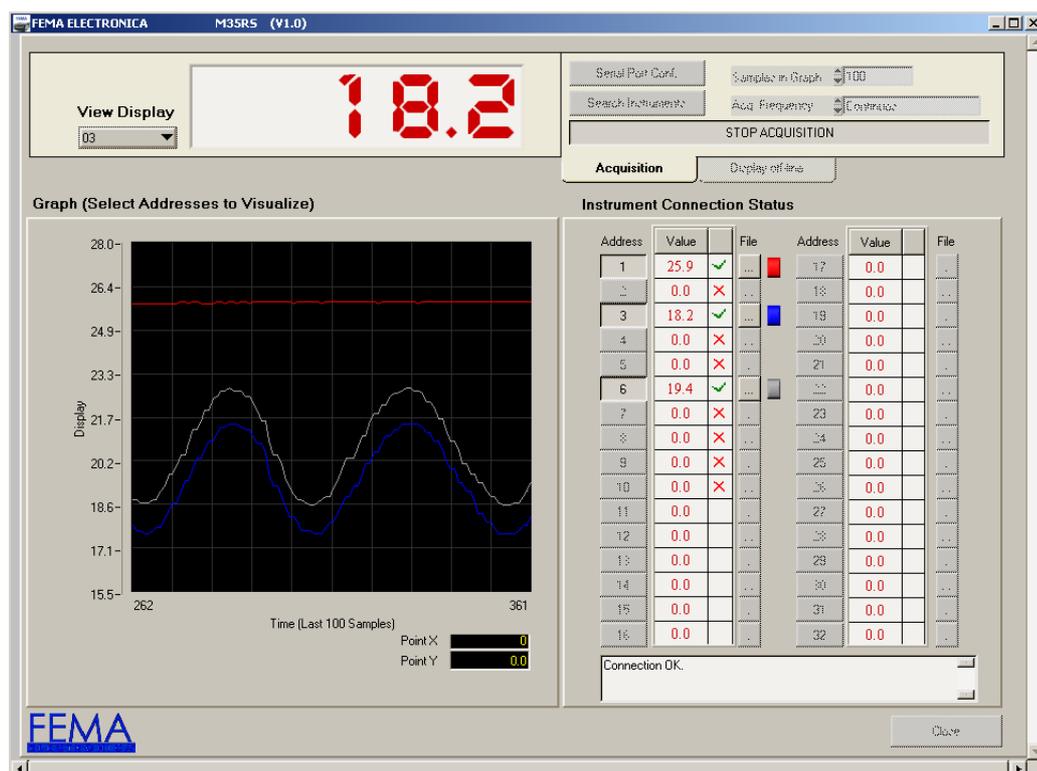
Select an instrument to visualize its display value in a larger mode.

### «Acquisition»

Configuration for the communications port (COM, speed, parity, ...), definition of the acquisition frequency (samples per time), the number of samples for the X axis of the graph, and a tool to search instruments on the bus.

### «Display Off-line»

Allows to reload and visualize data acquired in the past, from the data files stored on acquisition.



## Installation and start-up

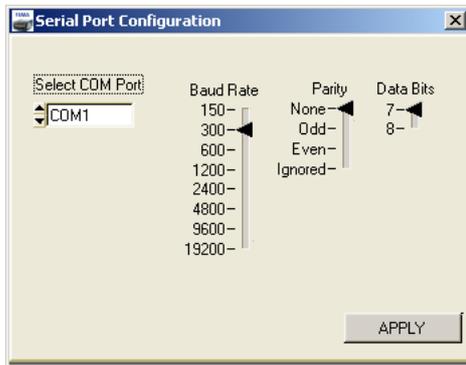
It is needed for the MAG-35 instruments to have included the «RS2» or «RS4» options in order to retransmit its display values. For more information on the configuration for these options and its connections to the PC, check the user's manual for the series «MAG-35 Options».

### A - Install the Software

Download from [www.fema.es](http://www.fema.es) the file «M35\_RS\_VX.X», unzip, and execute «*setup.exe*». The install files are placed in «C:\ProgramFiles\M35RS\_V1.0». Execute the program «M35RS\_V1».

### B - Port Configuration

Click the button «Serial Port Conf.» to configure port  
speed  
parity  
data bits

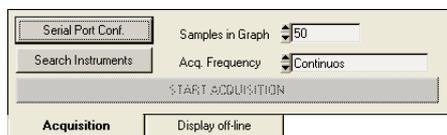


### C - Search instruments

«Search Instruments» button localizes the MAG-35 instruments which are connected to the bus. Instruments are marked with a green check or a red check depending if they have been located or not.

Note .- If no instrument is detected, verify the connections and verify that the parameters defined in the section «Serial Port Conf» match those parameters configured in the communication boards of the instruments.

Note .- To leave the search state, click again on «Search Instruments» button.



### D - Configure the samples of the graph

«Samples in Graph» selects the number of acquisitions to visualize in the X axis of the graph.

### E - Configure the data acquisition frequency

«Acq. Frequency» selects the frequency of acquisition in [samples/ unit of time]

Note .- If the application uses slow transmit speeds (300bps) together with high acquisition frequencies (1 sample per second), the transmit speed could be too slow and data could be lost. In this case, confirm that the following formula applies :

$$[Acq/Seg] < (250/baudrate[bps])*number\_of\_instr.$$

### F - Configure data storage files

Change the location and name of the data storage files, see page 4 for more information.

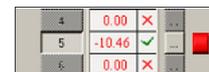
### G - Start acquisition

Push «START ACQUISITION» button.

The data storage files are generated for the located instruments. If these files already exist, the system will ask to overwrite the files or to append the new data at the end of the existing file.

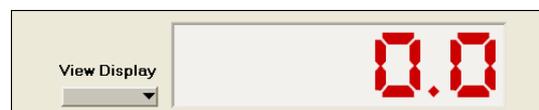
### H - Activate the Graph

To visualize the acquired data on the graph, select the button «Address» which contains the address number of each instrument, at the «Instrument Connection Status» section.



### I - Select «View Display»

Select an instrument to display in a larger format.



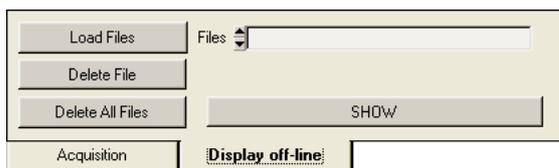
### Visualization of Data Files

The data stored inside the files can be visualized again by using the tools on the «Display Off-line» section.

The button «Load Files» allows to select the data files to visualize.

The button «Show» visualizes the files on the graph.

The buttons «Delete» deselect the files in order to not show the data on the graph.



### Error Files

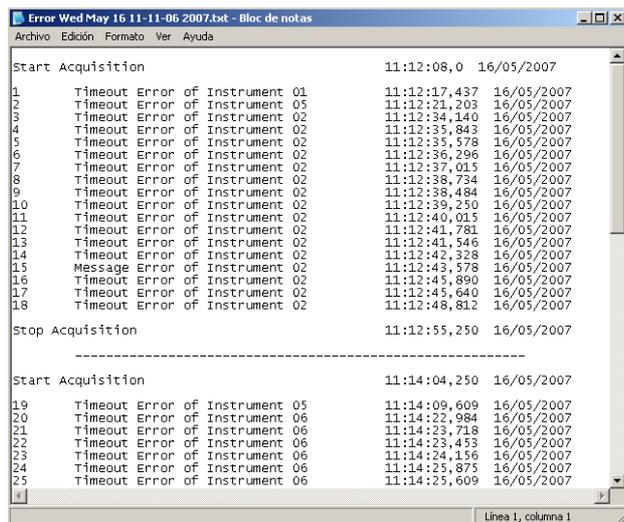
All errors occurred during the data acquisition will be registered inside a log file located in :

C:\ProgramFiles\M35RS\_V1.0\Mag35\_Error

The name of the error files have the following format :

Error Tue Jun 12 09-05-26 2007.txt

The following image is an example of an error file, with an initial acquisition and a second acquisition added, each one with several «TimeOut» errors.



### Data Files

The data files are stored by default in the following path :

C:\ProgramFiles\M35RS\_V1.0\Mag35\_Test

The file names are :

Instrument\_01.txt  
 Instrument\_02.txt  
 ...  
 Instrument\_31.txt  
 Instrument\_32.txt

Both the path and the file names can be changed pressing the icon «...» placed beside the instrument display. Changed parameters will be maintained for future acquisitions.

The structure of the data files consists of a header and a data section. The header contains the instruments address, file name, and date of creation. The data section is made of lines lines ordered by number of acquisition, and includes the display value and the acquisition time.

The following image is an example of a data file with an initial acquisition and a second acquisition appended.

