

EVOSOFT

Fte[®]
maximal

Index

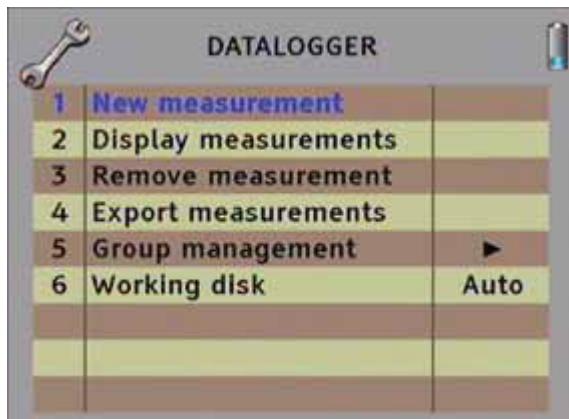
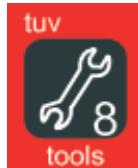
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Introduction

EVOSOFT is an application for computers with Windows operating system (see system requirements), which makes easier the programming of the data acquisition, from now on Datalogger, of your field meter **FTE mediaMAX EVO**, **mediaMAX EVO S2**, **mediaMAX mini S**, **mediaMAX mini S2**, **mediaMAX mini ST** or **mediaMAX mini S2T**.

EVOSOFT allows automatizing your measurements, and it helps you in the creation of programs which you can save in your internal Database for future uses.

To reach an optimal performance of **EVOSOFT**, knowing how to use the **Datalogger** of your field meter is necessary. Make sure that you have read all the functionalities of the **Datalogger** in the manual of your meter.



The interaction between **EVOSOFT** and the meter is carried out through a **USB Memory Device**, like the one provided when the product is purchased.



Glossary

This manual requires that the user have a good knowledge of how the meter works (**FTE mediaMAX EVO**, **mediaMAX EVO S2**, **mediaMAX mini S**, **mediaMAX mini S2**, **mediaMAX mini ST** or **mediaMAX mini S2T**), as well as basic notions about the Windows operative system, the one the document is being referred at any time.

Find below the terminology used in this manual, which corresponds to the terms used in the **Datalogger** of the meter.

- **Program:** Set of parameters of the meter, where one measurement is carried out, and it is stored as an element of the folder **prog**.
- **Measurement:** Set of data of levels, powers or figures gathered by the meter for a concrete program, in a certain **Point of Measurement**. It's stored like an element inside one subfolder **measurement point**.
- **Point of Measurement:** Set of measurements carried out in a concrete point of the installation, which will be stored in one subfolder under the folder **meas**.
- **Group of Measurements:** Structure that covers a group of programs and a group of measurements carried out in these programs in some points of the installation. In this structure also the number of repetitions is specified, as well as the time between repetitions, the pause between bands, etc.
- **Data-Logger:** Utility of automatizing and controlling the capture of measurements, present in the meters **FTE mediaMAX EVO**, **mediaMAX EVO S2**, **mediaMAX mini S**, **mediaMAX mini S2**, **mediaMAX mini ST** and **mediaMAX mini S2T**.

Quick start

To summarize the sequence of working is the following one:

1. From EVOSOFT, the different parameters of the meter are selected for a set of measurements to be carried out. For this purpose, you can use the **Assistant for creation of groups**. The assistant will guide us to create the **structure of the measurements**, which is the base of the **datalogger**. This structure is made of 2 components:
 - o A set of **programs of measurement**, where the parameters of the channels to be measured are specified.
 - o The different **points of measurement**, which are the interesting places to measure the signal.
2. Once the **structure of measurements** is created, it is dumped from the computer to the USB device. The memory is then connected to the meter, and through the command "**New measurement**" of the "**TOOLS > DATALOGGER**" menu, it executes all the programmed measurement procedures, storing the results in the same USB memory device.

In the same manner, the meter can import the structure of measurement to its internal memory, to use it to carry out the measurements, and once they are over, to export the measurements to the USB memory device. In this case you might make sure the limitations imposed due to the capacity of the internal memory of the meter (see manual) that, for instance, does not allow storing the picture of the programs.

3. The data, figures and pictures gotten, can then be loaded on the computer again, where **EVOSOFT** will allow its viewing and processing. Finally, the software allows generating detailed reports of the installations, which can be customized by the customer to make them fit with its needs.

Basic features

EVOSOFT will make easier the following tasks:

- Create **structures of measurements** to be used with the **datalogger** of the meter, and store them in the USB memory device.
- Use assistants to create groups that compose the structure of the **datalogger**.
- Save in a Data Base all the programming parameters, and reuse them in future works.
- Restore the information of the datalogger from the USB memory, and view the measurements, the figures of the spectrums (in peak and average mode) the oscillogram of one specific CVBS line (for analogue TV) and one capture of a Picture of the TV channel.
- Create customized **reports** from different patterns, which can be created or adapted with the **pattern editor**.
- Create, Save and Restore programs that, without being part of the **datalogger**, they can be used by the meter in the **program navigation** mode.

Installation and registering

Content of the package

The **EVOSOFT** packet is delivered into **USB 2.0** memories, which must contain the following elements:

- Installation software of **EVOSOFT**.
- The current user's manual in PDF format.
- The needed *firmware version* to be able to use **EVOSOFT** with your field meter **mediaMAX EVO**, **mediaMAX EVO S2**, **mediaMAX mini S**, **mediaMAX mini S2**, **mediaMAX mini ST** or **mediaMAX mini S2T**.
- The upgrading manual of your field meter.

This memory can be used to the data transfer between the PC and the meter, as well as for other uses.

It is highly recommended to save the information placed in the USB memory before using it as a storage data disk.

Program requirements

In order to make the program work properly, it is necessary:

- One field meter **mediaMAX EVO** with a *firmware* version 5.8.0 or higher, or one **mediaMAX EVO S2** with a *firmware* version 1.6.2 or higher or one **mediaMAX mini S**, **mediaMAX mini S2**, **mediaMAX mini ST** or **mediaMAX mini S2T** with a *firmware* version 1.4.3 or higher.
- One Personal Computer (PC) with:
 - Windows 2000, Windows XP or Windows Vista Operative System.
 - Minimum 512 Mbytes of RAM memory and at least 50 Mbytes of free space in your Hard Disk.
 - It is recommended a Pentium 4 processor with 2.4 GHz or faster speed.
 - One USB port free, better with version 2.0, for better data flow.
 - Minimum screen resolution of 1024x768 pixels, with a colour depth of 16 bits, (we recommend a resolution of 1280x1024 and a colour depth of 24 bits).
- To dispose of Internet connection in order to carry out the activation of the software.
- One USB 2.0 memory device to transfer and recover the information of the meter (delivered).

Installation

To install this software, please **connect your FTE Maximal USB stick which contains the EVO SOFT software. Connect to the USB port of your computer.** If you have auto run enabled in your operating system, a new window appears, with different execution options. Select “**Install EVOSOFT**”.



Otherwise, Open the USB stick and execute the program that appears in the **EVOSOFT** folder directly from the USB stick.

Follow the instructions step by step until the Installation Wizard ends.

Note for Windows 2000 and Windows XP users

To be able to install and correctly register the software, *you must have administrator permissions to install new software in your computer.*

Note for Windows Vista users

If you have the User Accounts Control enabled, you might carry out the installation as Administrator. Open the folder **EVOSOFT** in the USB stick, and execute the installation program. Press the right button of the mouse to open the contextual menu and select the option “*execute as administrator*”. From now on, follow the instructions of the installation program.

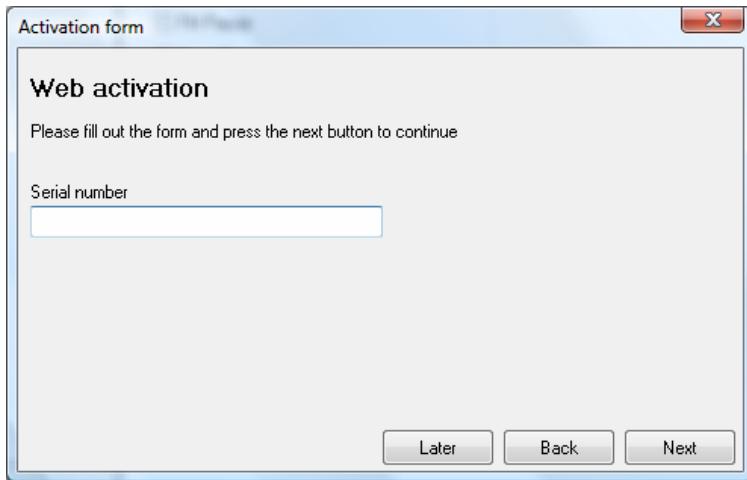
Register

After installing the EVO SOFT successfully:

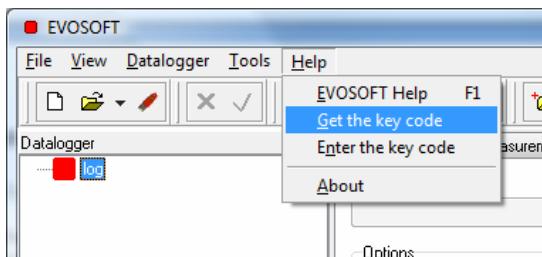
Before using any or all the functions of EVO SOFT, you must register the software. We require the software to be registered in order to avoid multiple copies of one Serial Number on different Computers.

To register EVO SOFT, you need Internet connection.

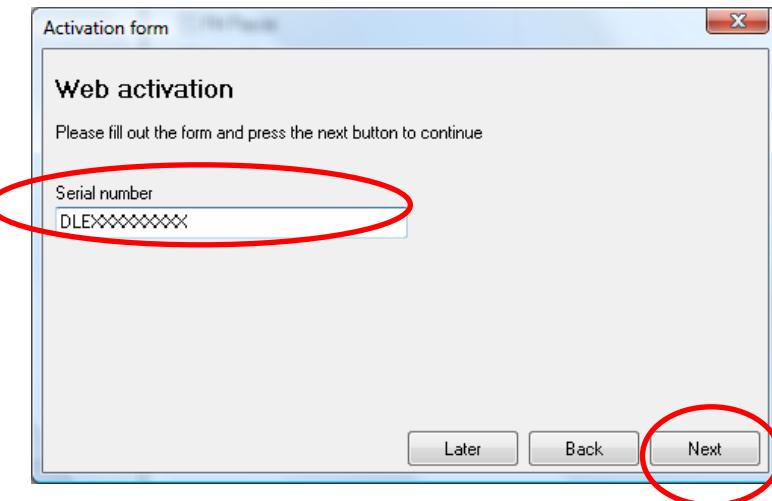
1. If the program has been installed correctly, **when you start EVO SOFT, a new activation window appears:**



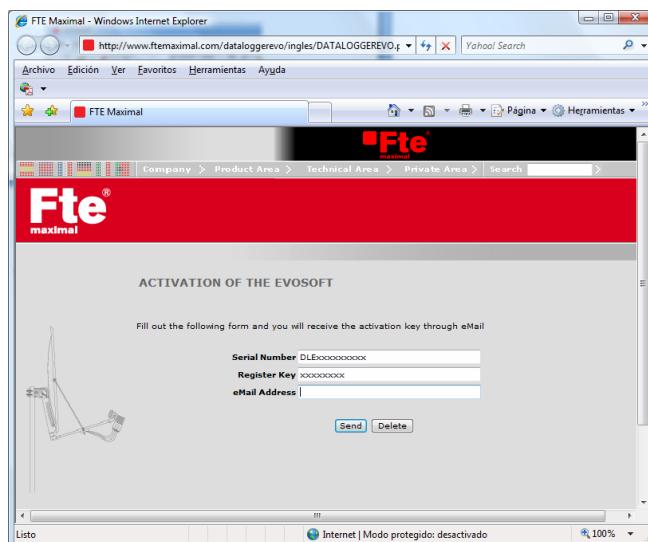
Note: If the window shown above does not appear automatically, you can access to it by going to "**Help → Get the key Code**"



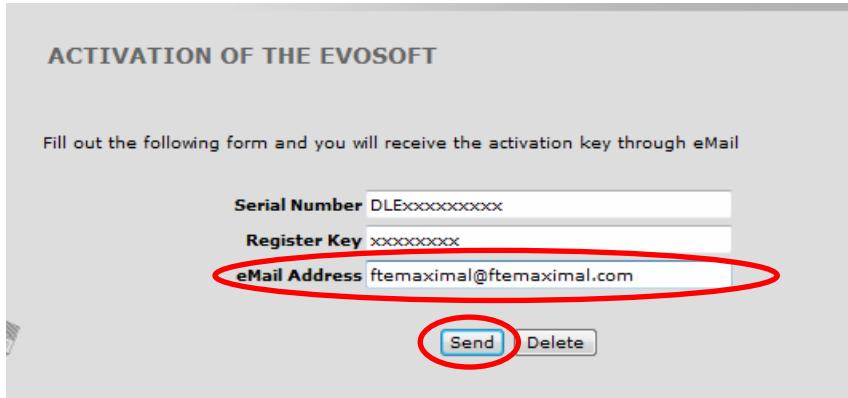
2. Enter into the field the Serial Number provided by FTE Maximal (labelled onto the box of the USB Device).
3. Click on the “Next” button.



4. You will be then connected to the FTE Maximal Website. A new window will be opened in your Internet Browser with a website like the following one, where your Serial Number and your Register Key already appear (they do not need to be edited).



- 5. Enter your email Address in the concerning field.**
- 6. Click on the “Send” button.**



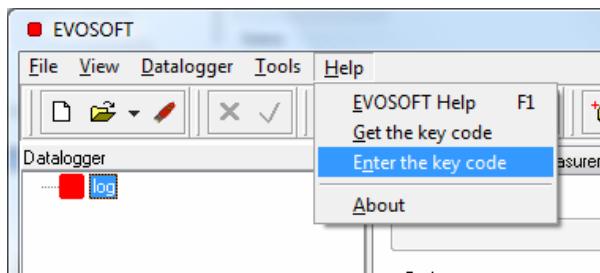
- 7. Once the entered information is verified, a new window appears showing your Activation Code, which automatically will be sent to the email address previously entered.**

Note: Take note of this Activation Code, since you will need it to activate EVO SOFT (last step).

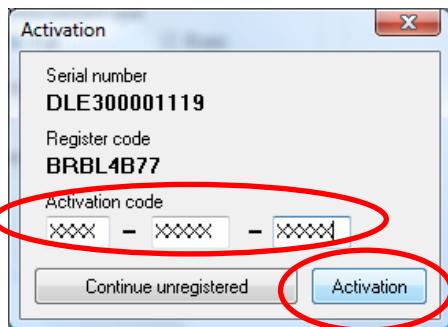
Activate the Software

The last step is to activate EVO SOFT software.

- 1. When you get the Activation Code (by email), you must enter the Activation Code into EVO SOFT. To do it, select the option “*Help → Enter the Key Code*”.**



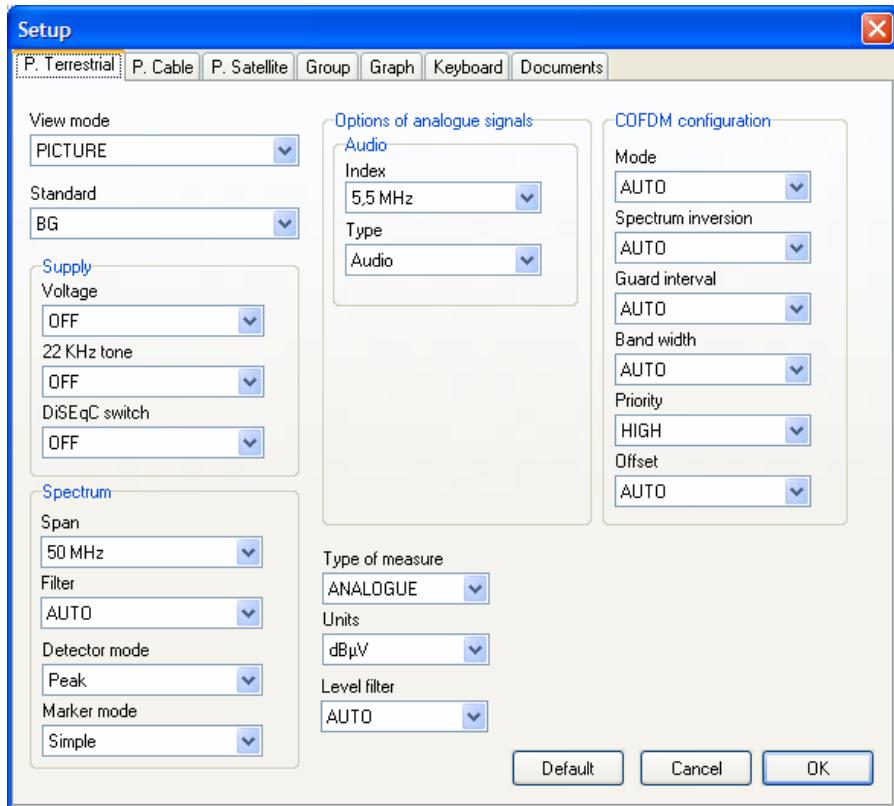
2. Enter the Activation Code.
3. Click on the “Activation” button.



4. A message will then confirm that the software has been properly registered. Otherwise, please verify that you have typed your Activation Code correctly. **If in any case, you cannot complete the process, please, contact Fte Maximal at sat@fitemaximal.com.**

Configuration

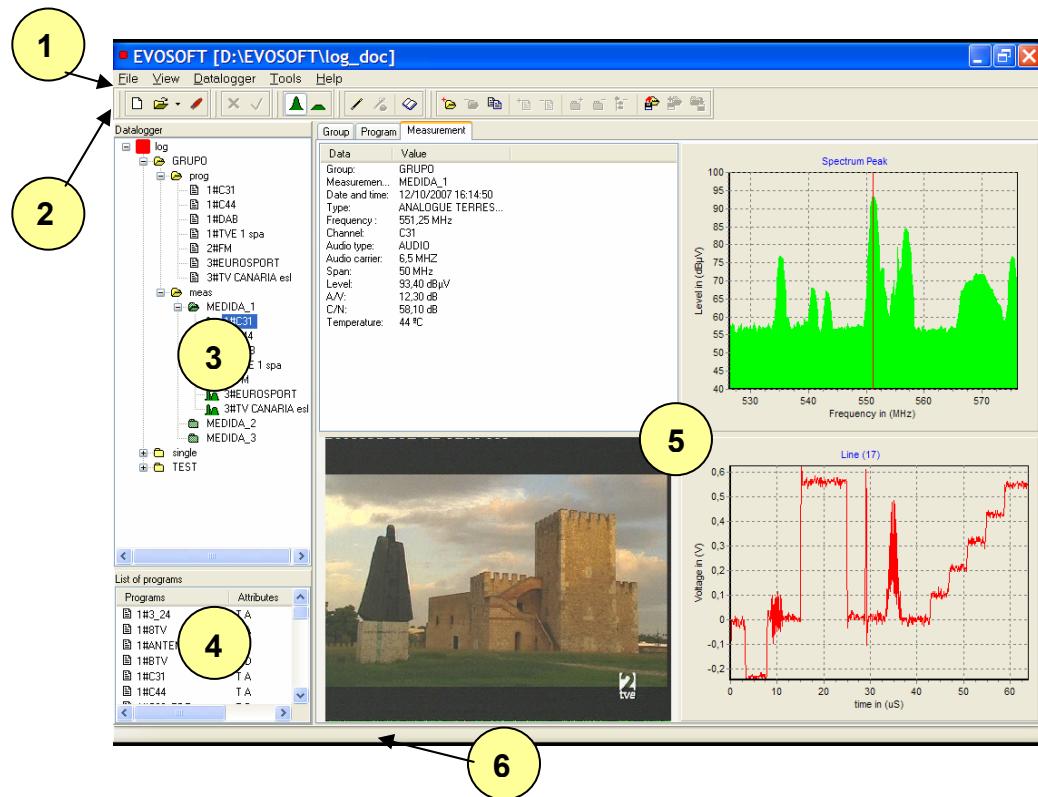
As you can see in the following chapter, from the **Tools** menu, you can accede to the **Configuration** window. In this window, you can specify the default values which will appear in the different windows of **EVOSOFT**, as well as the fast access with the keyboard and routes of accessing to the documents, following the user's preferences.



Working environment

The main window of **EVOSOFT** is composed of the following main elements:

1. Menu bar
2. Tools bar, with fast access icons
3. Datalogger Tree structure
4. List of programs
5. Panel of data
6. Status bar

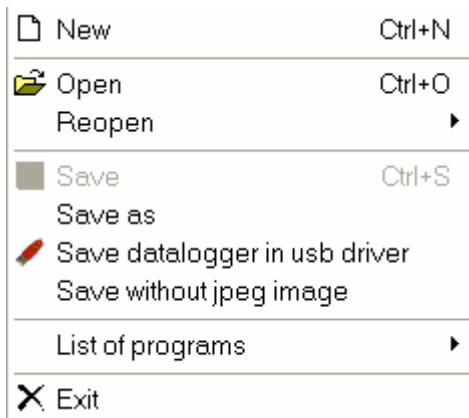


Menu bar

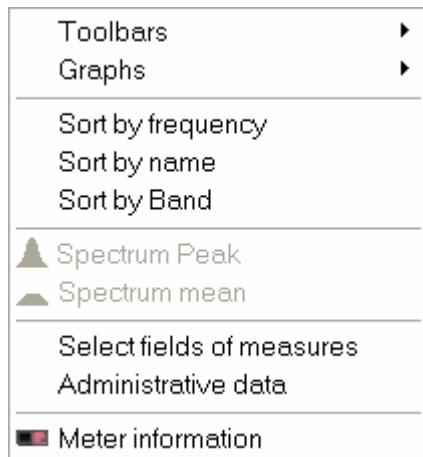
This bar allows the access to the majority of the functionalities of the software.



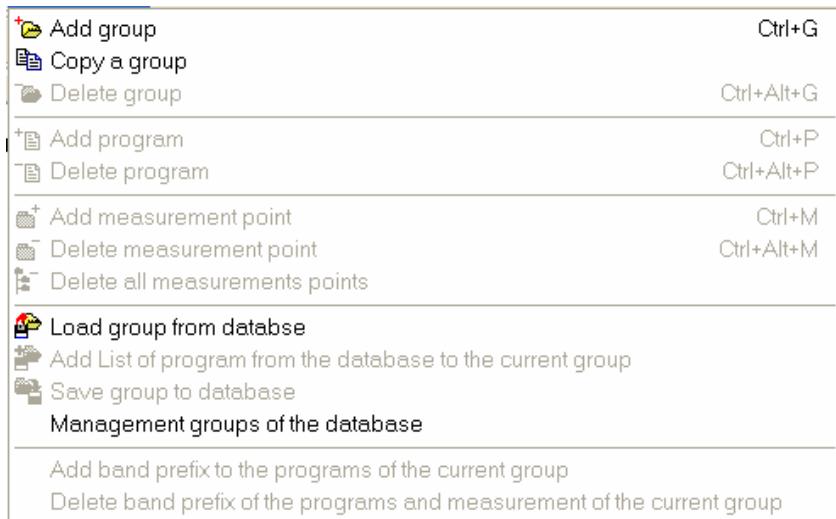
- **File:** accede to open and save data.



- **View:** allow adjusting the presentation of the viewed components, showing or hiding them, depending on the user's preferences.



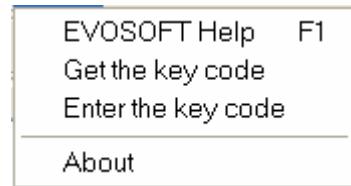
- **Datalogger:** creation and management of groups, programs, measurement points and other datalogger elements.



- **Tools:** creation and edition of reports and measurements utilities



- **Help:** access to the manual, options of registering and credits.



Tools bar

In this bar, the most common functions of **EVOSOFT** appear. They are also accessible through the menu.

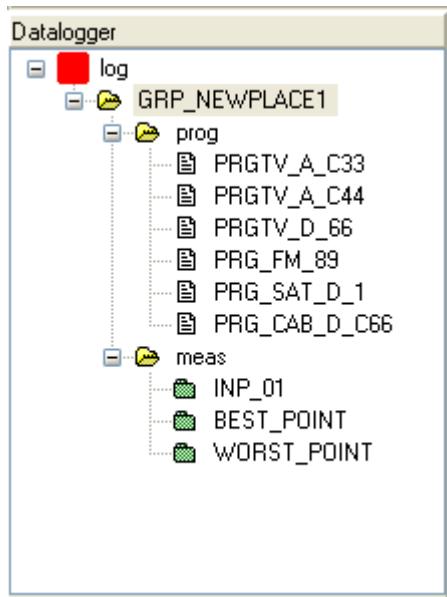


It is divided in 5 independent bars, with the following functions:

- **Standard**
 - New datalogger Tree
 - Open Tree
 - Open recent Tree
 - Save in USB
- **Edit**
 - Confirm changes
 - Cancel changes
- **Spectrum**
 - Spectrum in peak mode
 - Spectrum in average mode
- **Tools**
 - Assistant for creation o fan ICT group
 - Assistant for creation of group
 - Edit the group using the assistant
 - Create report
- **Datalogger**
 - Add/Delete/Duplicate group
 - Add/Delete program
 - Add/Delete/Delete_All the measurement points
 - Load group from the Data Base
 - Add programs from the Data Base
 - Save group in the Internal Data Base

Datalogger panel

This panel allows exploring the datalogger tree, composed by different groups of measurement.



Each **group of measurements** is represented in folder mode, which holds other two folders, named **prog** and **meas**.

The folder named **prog** shows the different programs. One **program** is the set of parameters of the meter where the measurements will be done. In one program the parameters of frequency, band, modulation, standard, different variables of the spectrum analyzer, etc are specified, and they will keep stored in the folder **meas**.

In the folder named **meas** the points of the installation with special interest are defined, where we have decided to measure the signal: before amplifying, at the closest and farthest outlet, etc. A folder is associated to each measurement point, where the meter will store the measurements, which are the acquired data for each program defined in **prog**.

From the datalogger Tree, you can drag and drop elements and folders among different parts of the tree, and towards the List of Programs. You can, for instance:

- Copy a program from one group to the other.
- Add to a folder **prog** other programs of other folders **prog**.
- Copy a **measurement** in a **prog** folder. Since the measurements store also the information of the program, you can transfer this information to a new program.
- Drag one folder **prog** to/from the **List of Programs**

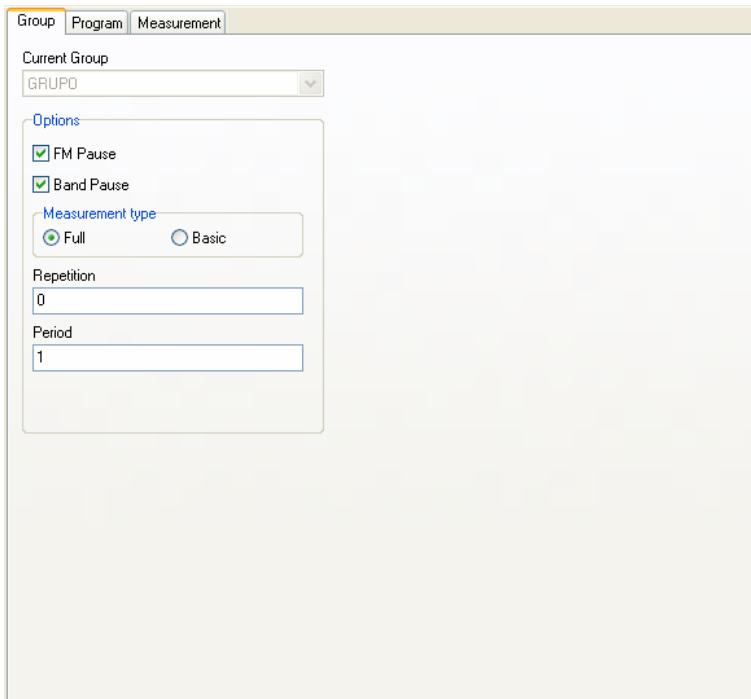
Like in other Windows applications, using the right button of the Mouse, in this panel we accede to a contextual menu, which from we can carry out the basic management operations with **groups**, **programs** and **measurement points**.

Wizard of group	Ctrl+W
Edit group using the wizard	
Add group	Ctrl+G
Delete group	Ctrl+Alt+G
Copy a group	
Save group to database	
Add band prefix to the programs of the current group	
Delete band prefix of the programs and measurement of the current group	
Add program	Ctrl+P
Delete program	Ctrl+Alt+P
Add measurement point	Ctrl+M
Delete measurement point	Ctrl+Alt+M
Delete all measurements points	
Change the name	F2
Sort by frequency	
Sort by name	
Sort by Band	

Data panel

The data panel has three types of different viewing, associated to the tabs marked as **Group**, **Program** and **Measurement**. When you navigate through the datalogger Tree, and you select different elements, you can see their content in this panel. The type of tab is automatically adapted to the selected content.

Group tab



The options of pause, allow us to pause the meter when it detects we are changing the band in the automatic process of measurement; therefore the installer can change the input cable for the correct one at each time.

You should select the type of measurement to carry out between the "Complete" and "Basic" options.

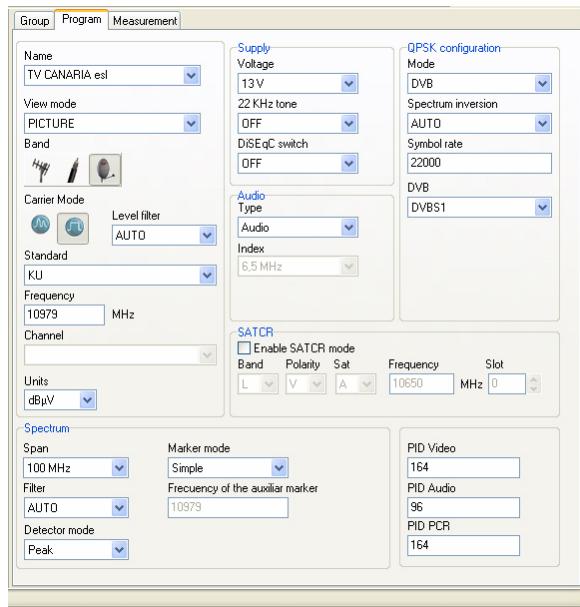
The **Repetition** indicates the number of times that the measurement process will be done, while the **Period** establishes the waiting time between the repetitions, in minutes.

You can find more details about these parameters in the chapter "**Datalogger**" in the user's manual of your **mediaMAX EVO or mediaMAX mini**.

Program tab

The options shown in this panel will change dynamically depending on the type of program selected, basically it depends on the Band (terrestrial, cable, satellite), and the carrier mode (analogue or digital modulation) that we select.

In the following figure, the aspect of a program in **terrestrial** band and **digital** carrier is shown.



The meaning of each parameter can be checked out in different chapters of the manual of your meter.

Note: Setting to '1' the value of the PIDs will force the meter to find them automatically.

Measurement tab

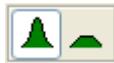
Once the measurements have been carried out, and all the data have been imported from the meter, we can view the results comfortably, selecting the different measurements which remain stored in each subfolder of **points of measurement** inside the folder **meas**.



The data of the measurements are shown in 4 parts: measured values, spectrum figure, picture capture and selected video line figure. Each part (except the one of measured values), can be dragged out of the **Measurement Tab**, creating in this manner a new independent window, which can be maximized in order to observe it better.

Notes:

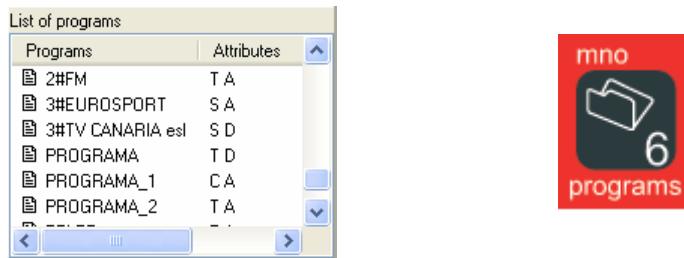
- The figures allow the **zoom** function over a rectangular selection, made pressing the left button of the mouse, and dragging over the area of interest. You can get back selecting in the opposite direction or from the contextual menu.
- You can also shift the figure in the axes x and y, dragging it while pressing the right button of the mouse.
- The spectrum figure allow the combined viewing of the peak and average data, from the contextual menu, or through the icons:



List of programs

This window is related to the **programs** menu of the meter. Its basic utility is to keep a programs library that you can use in the future in the meter, in different measurement scenarios.

Through the **list of programs** you can explore the comfort and facility of editing programs with EVOSOFT, and you will reach taking advantage of the meter in your field work.



(Button of mediaMAX EVO or mediaMAX mini)

From the contextual menu, where you can accede pressing the right button of your mouse inside this window, you can import or export the programs from/to the meter through a USB device, as well as store them in the Hard Disk of our computer.

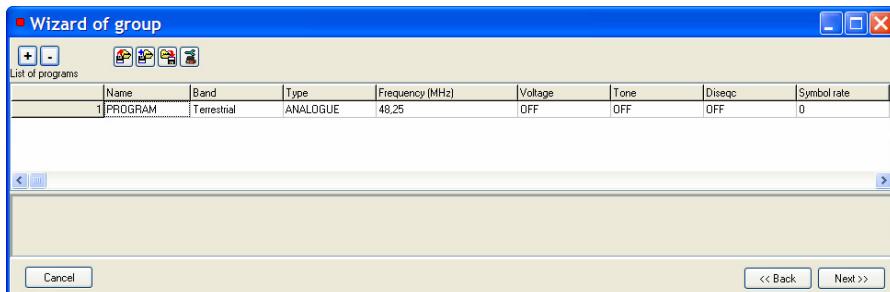
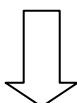
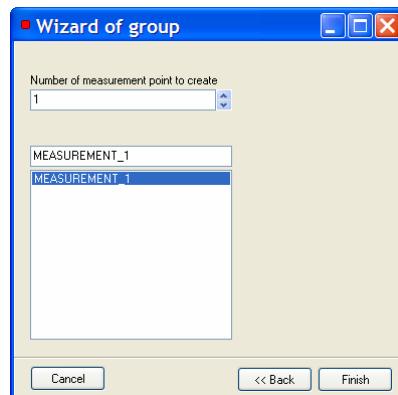
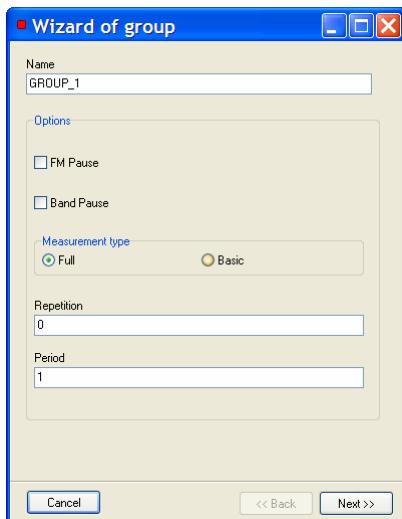
The programs of this window can be dragged to/from any other folder **prog** of a **group of measurements**.



Assistants

The assistants are utilities that will guide you step by step during a process. In this case, the assistants will help you to create or edit a group of measurements:

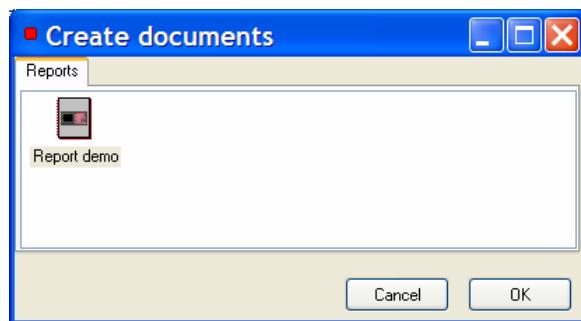
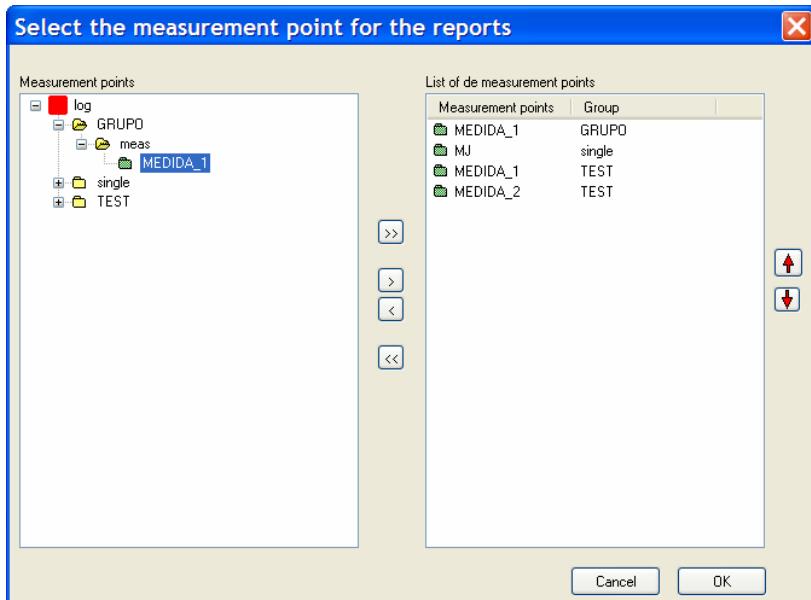
- Assistant of creation of group.
- Edit the group using the assistant.
- Assistant of creation of new groups for ICT.¹



¹ Option only available in the version for Spain.

Create report

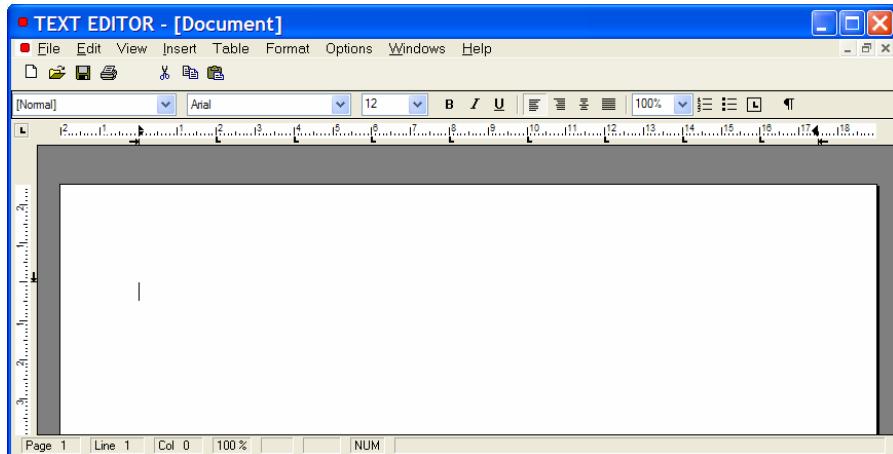
This utility allows carrying out automatically detailed reports, following the default patterns established in **EVOSOFT** or other specify customized by the user.



Depending on the kind of pattern selected, the software will generate a report with 'doc' extension that you will be able to see with the external editor or with the default Windows editor.

Text editor

This tool gives the typical functionalities of a text editor, that you can use to create or modify the generated reports by EVOSOFT, or whatever other documentation which is necessary for your projects.



Pattern editor

The pattern editor is a utility, with identical aspect than the Text Editor, but with the following features:

- **Type of pattern**, which allows to select between “Special” and “Report”.^(*)
- **Insert variables**, which allows link to the pattern any of the imported values from the meter, as well as the administrative parameters.
- **Insert marks of repetitive block**: the text that is involved between the marks will be repeated for each measurement you have selected to be included, making easy the creation of exhaustive reports.

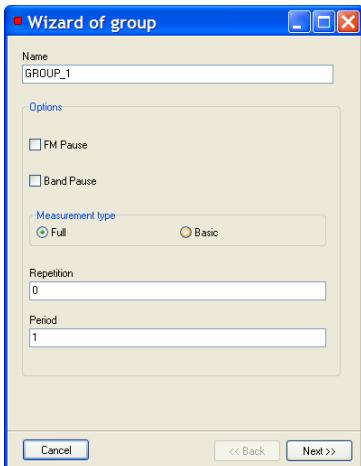


^(*) Option only available in the version for Spain.

Example of use

Below, a typical sequence of use of **EVOSOFT** is described.

- 1 Select **File > New**
- 2 Start the **Assistant of Creation of Groups** from the **Tools** menu.

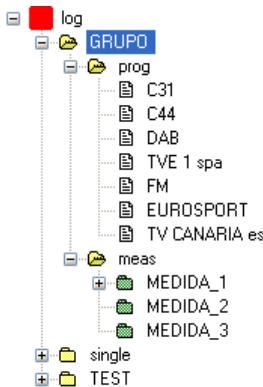


- 3 Assign a name to the group and fix the rest of parameters as you prefer.
- 4 Click on **Next**. A new table appears, where you have to add the programs (channels) you want to measure on, with their appropriated options. You can recover from the internal Data Base programs that you could define in the past for other works.

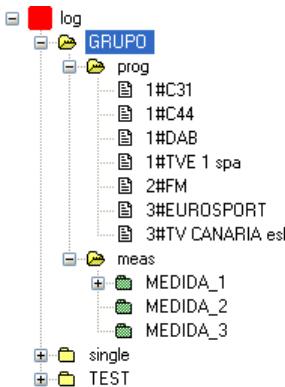
- 5 Once all the programs are included, click on **Next**. A new **Assistant of Creation of Group** window appears then:



- 6 Select the number of measurement points that you want, and give them an appropriated name (FAR_OUTLET, INPUT_AMPLIFIER, etc...). Then, click **End**.
- 7 With this, you have created your structure of measurements. You can revise and adjust with more detail the parameters of your programs navigating through the **prog** folder.



- 8 Select in the Datalogger panel the created group. In this point, it is convenient to use the option Datalogger > Add Band Prefix in the name of the programs of the group, with which you will reach the meter to carry out the measurements in an order that minimizes the number of changes of band.



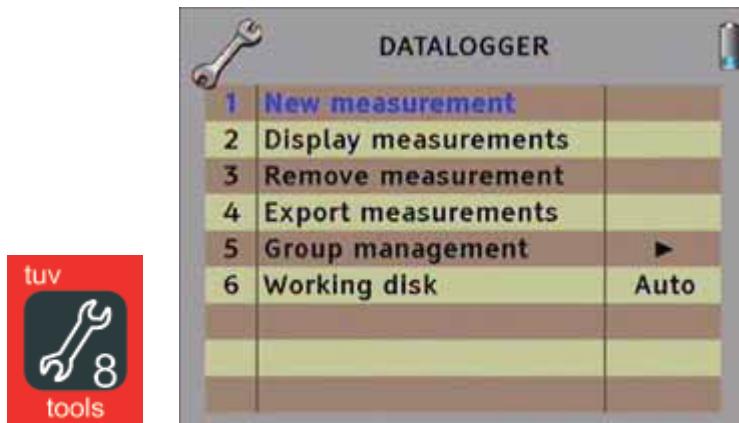
9 Select the option **File > Save Datalogger in USB unit**.



10 Select the correct unit and click **OK**.

- 11 In the USB unit, a log folder will appear, which contains our structure of measurements. Close the EVOSOFT, extract the USB⁽¹⁾ and connect it to the meter.
- 12 Go to the option **TOOLS > DATALOGGER** and select the option '**New Measure**'. Select one of the points of measurements and press **Start**.

¹ Use the option '*Extract hardware safety*'



- 13 The meter will carry out all the programmed measurement procedures, storing the results in the USB¹. If you selected the option **Pause between bands**, the meter will pause to allow you change the connection when it is necessary.
- 14 When you finish the measurement process, the data, figures and pictures gotten are stored in the USB device. Take it off and connect it again to your computer.
- 15 Ejecute **EVOSOFT** y desde **Archivo>Abrir**, seleccione la unidad USB adecuada y recupere la información de las medidas.
- 16 Once the data is imported, **EVOSOFT** allow having an amazing viewing and handling. Into the folder **meas** of the **Datalogger panel** you will find subfolders with your point of measurements and, inside them, the particular data for each program.
- 17 If you want, to make your reports clearer, it would be convenient to remove the prefix previously added in the step 8 to the program names and points of measurement.
- 18 Navigate through the different measurements to verify the data are correctly captured.
- 19 Create your own reports from **Tools > Create Report**.

¹ In the same manner, the meter can import the structure of the measurements to its internal memory, store the measurements internally (see limitations of capacity) and, once the process is finished, export the measurements to the USB device.

In case of problems

If you have any problem during the installation, or if you have any doubt about how the program works, please send an email with your contact data and the description of the problem to the email address which appears in the activation email, and we will be pleased to help you as soon as possible.

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