

# **SX-METRO**

**Software**



**User's Guide**

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## Introduction

SX-METRO is a programme which runs under Windows 98 / Me / NT / 2000 / XP.  
The minimal configuration is : Pentium II 350MHz, 64MB RAM.

The software restores from the analogue-digital oscilloscopes :

- acquisitions in a wave shape
- instrument configurations
- hardcopy as a BMP file

It also enables :

- documentation
  - data export to EXCEL
  - screen copy in the clipboard
-

# Main Menu


## File

---

### New

Creates a new graph without curve in the main window.

New graphs may be opened at any time. A maximum of ten graphs may be opened at any time.

This option is available in the toolbar when clicking on the icon : 

Shortcut key : [Ctrl][N].

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### Open

This option opens a data file.

File types refer to the following data :

A file	contains
*.trc	a curve which is displayed in the active graph.
*.rec	a recording which is displayed in a new graph.
*.cfg	an instrument configuration.
*.bmp	a hardcopy.
*.grf	a graph with its curves and comments.
*.per	a curve in persistence mode.

This option is available in the toolbar when clicking on the icon : 

Shortcut key : [Ctrl][O].

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### Save

This option saves the curves in a data file (\*.trc, \*.rec or \*.txt) or a complete graph (\*.grf).

The data file created can be loaded with the option Open.

This option is available in the toolbar when clicking on the icon : 

Shortcut key : [Ctrl][S].

---

### Close

This option closes the active graph.

This option is available in the toolbar when clicking on the icon : 

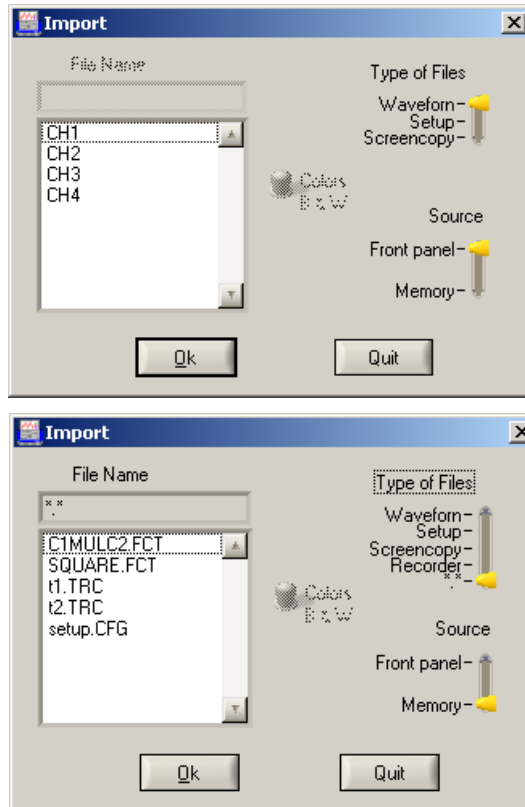
---

## File (cont'd)

### Import

This option imports curves (oscilloscope and recorder), configurations and screen copy from the connected oscilloscope.

The option <\*. \*> in the file types saves directly the file selected on the PC.



This option is available in the toolbar when clicking on the icon :

### Export

This option exports traces and configurations to the connected oscilloscope.

This option is available in the toolbar when clicking on the icon :

### Print

This option prints the active graph.

This option is available in the toolbar when clicking on the icon :

Shortcut key : [Ctrl][P].

### Exit

This option quits the SX-METRO application.

## Edit

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### Cut

This command deletes the selected curve in active graph, and keeps it in memory.


This option is available in the toolbar when clicking on the icon : 

Shortcut Key : [Ctrl][X]

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### Copy

This command copies the selected curve in memory.

This option is available in the toolbar when clicking on the icon : 

Shortcut Key : [Ctrl][C]

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### Paste

This command restores the curve in active graph.

This option is available in the toolbar when clicking on the icon : 

Shortcut Key : [Ctrl][V]

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### Delete

This command deletes the selected curve in active graph.

Shortcut Key : [Del]

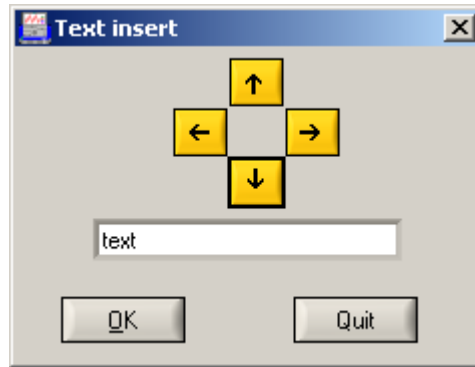
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## Edit (cont'd)

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### Text insert

This option inserts text and moves it along the graph.



The user may insert, modify or withdraw 3 different texts.

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### Copy window

This option copies the screen.

Everything that can be seen on the screen is copied in the clipboard to be worked out in any other Windows application.

Shortcut Key : [Ctrl][Shift][C]

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### Rename Window

This command modifies the title of the selected graph.



## Options

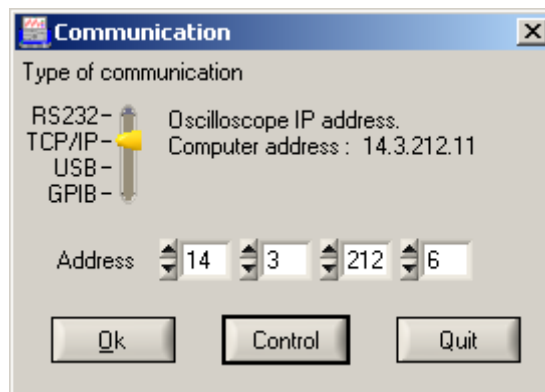
### Communication

This option validates the type of communication used to dialogue with the oscilloscope.

Communication on serial port is configured :

- the highest speed (9600, 19200, 115200 bauds, etc ... depending on the type of instrument which is connected),
- no parity,
- 8 bits,
- 1 stop bit,
- RTS/CTS protocol.

Specify the device's IP-address for the TCP/IP-connection.



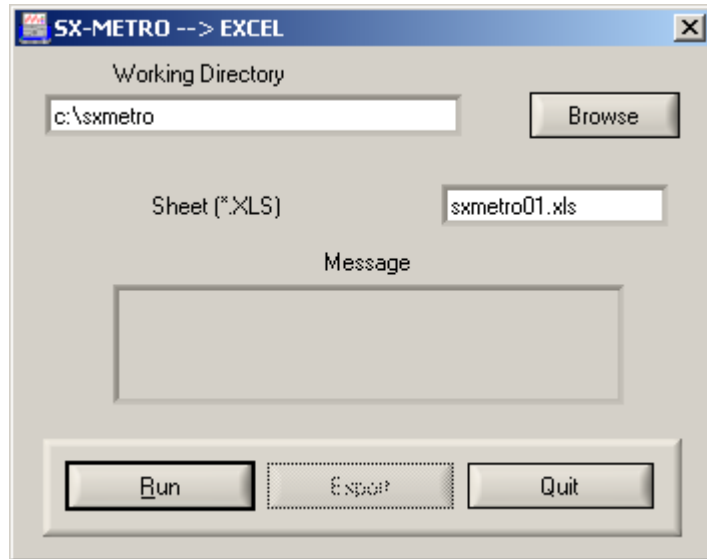
Make sure that the configuration is identical on the instrument connected to the computer.

Type of communication	Specifications
<b>RS232</b>	detects automatically the speed. No parity, 8 bits, 1 stop bit, BTS/CTS protocol.
<b>TCP/IP</b>	indicates the IP address of the oscilloscope, (the IP address of the PC is given for information).
<b>USB</b>	for oscilloscopes especially equipped (the driver must be properly installed).



## Options (cont'd)

**Export to EXCEL** This option exports measurement results to EXCEL.



EXCEL starts by clicking on the Run EXCEL button.

If the launching is successful, the data can be exported by clicking on the Export button.

The dialog box can be used to select the name and the destination of the calculation sheet, where the data is exported.

The Message control informs about the nature and the result of the different procedures.

This option is available in the toolbar when clicking on the icon : 

## Options (cont'd)

### Control

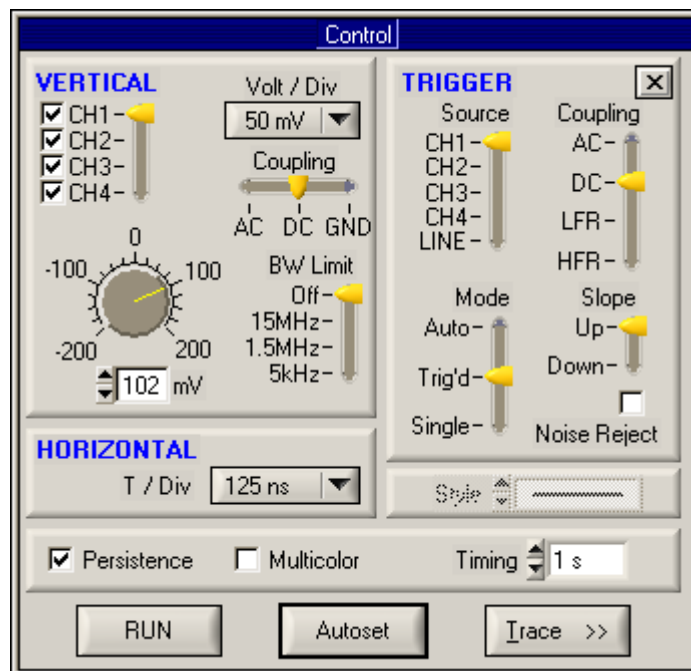
This option enables the front of the instrument to be checked.

The following parameters can be modified:

- the calibre of each channel,
- the coupling of each channel,
- the validation
- the BW of each channel
- the time base,
- the trigger mode,
- the trigger source,
- the trigger slope,
- the trigger coupling,
- the rejection,
- the persistence
- the autoset,
- Run / Stop.

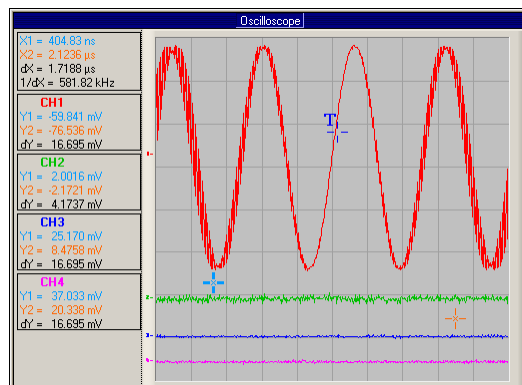
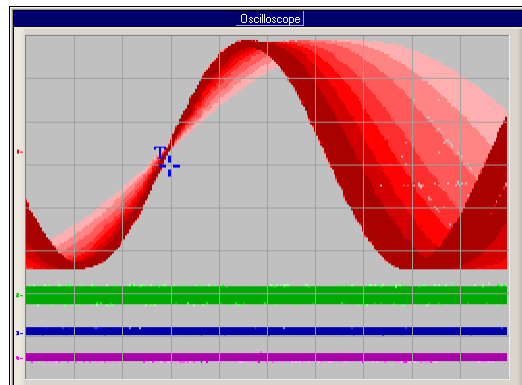
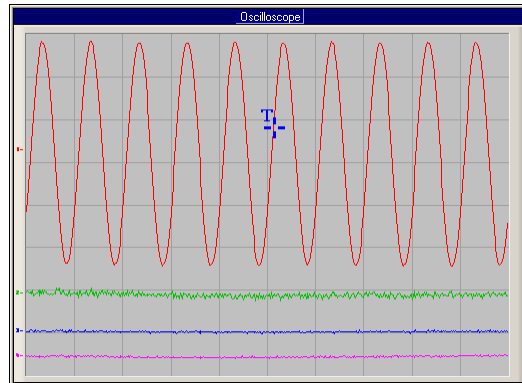
It is possible :

- to visualize the curves in real time,
- to modify the trigger levels,
- to perform cursor measurements.



## Options (cont'd)

### Control (cont'd)



This option is available in the toolbar when clicking on the icon :

### Language

This option selects the application language.

### Save settings on exit

This option saves the general setting on quitting the application. It can thus open the application as it was on exit.

## Display

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### Grid

Enables or disables displaying the grid on the selected graph.

This option is available in the toolbar when clicking on the icon : 

### Variation cursors

Enables or disables displaying cursors on the selected graph.

This option is available in the toolbar when clicking on the icon : 

### Legend

Enables or disables displaying signal acquisition characteristics of the selected graph.

The caption indicates the x- and y-axis of the blue cursor.

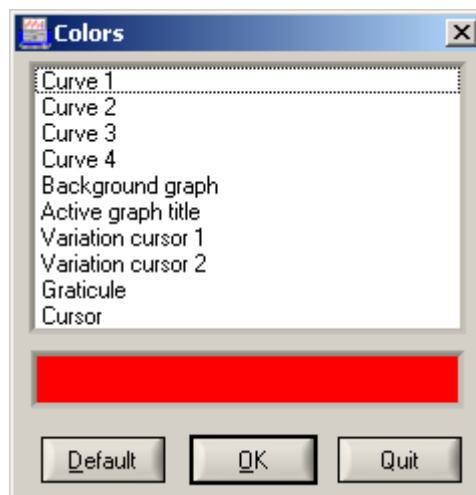
If the variation cursors are displayed, their values appear in the caption too.

This option is available in the toolbar when clicking on the icon : 

### Colors

This option modifies the different colors of SX-METRO window.

It is possible to modify the color of :



## Display (cont'd)

### Zoom

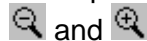
This option expands or compresses a curve.

The zoom value is displayed at the top of the graph.

By default, the zoom is neutral and its value is x 1.

Each click on Zoom-in button increases or decreases the zoom value from x 100 to x 0.05.

This option is available in the toolbar when clicking on the icons :



### Full screen

Allows a full screen display of a graph.

Double click with the mouse right button.

The graph is displayed on full screen. Double click again and the graph will return to its previous position.

This option is available in the toolbar when clicking on the icon : 

### XY

Starting from a selected graph containing at least two curves, this function opens a new graph and inserts new curves derived from the representation into it.

Curve : X (Signal1) and Y (Signal2)

If the initial graph contains:	The final graph contains:
- two curves : S1, S2	- one curve: X(S1) and Y(S2)
- three curves : S1, S2, S3	- two curves: X(S1) and Y(S2), X(S1) and Y(S3)
- four curves : S1, S2, S3, S4	- three curves : X(S1) and Y(S2), X(S1) and Y(S3), X(S1) and Y(S4)

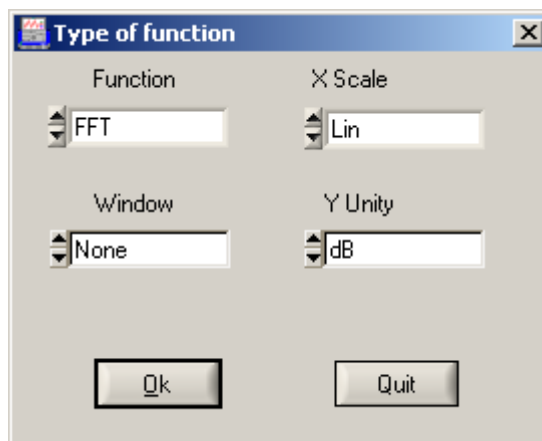
This option is available in the toolbar when clicking on the icon : 

## Display (cont'd)

### Function

This option configures the different functions :

- the F.F.T. (Fast Fourier Transform) with several choices:
  - display the results in “Volts” or in “dB”
  - application of a processing window (Triangular, Hamming, ...)
  - the X-scale (linear or logarithm)
  
- Mathematical functions with :
  - the function type (+, -, x, / )
  - the source of the signals to be combined
  
- Derived function
  
- Integral function
  
- Digital filters (low-pass, high-pass, bandpass)



This menu opens a new graph and inserts the result of the calculated function into it.

This option is available in the toolbar when clicking on the icon : 

## Window

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### Cascade

This function replaces all graphs in the SX-METRO window so that they are partially visible.

This option is available in the toolbar when clicking on the icon : 

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### Tile

This function replaces all graphs in the SX-METRO window so that they are fully visible.

This option is available in the toolbar when clicking on the icon : 


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## Contents

This option runs the help file SXMETRO.HLP

This option is available in the toolbar when clicking on the icon : 

Shortcut Key : [F1]

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## Registration

This option lets you register for our support site, which enables you to download software updates.

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## About SX-METRO

This option displays information about SX-METRO.

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