s032-01 SuperVis

Monitoring/remote controlling supervision networks software

User manual (vers. 5.12)

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SUMMARY

Linked documentation

s011-i *DYNAMIC RECORDs - Dynamic records layout description*

s032-02-di *GESTCONF- Configuration management program manual*

s032-03-di *IMPORTA - Relational database data import management program manual*

s032-04-di *VALIDA - Data validation management program manual*

s032-05-di *DATAVIEW - Report and graph generating software program manual*

s032-06-di *SUPERA - Pollution above level of attention and alarm management program manual*

1 Introduction

1.1 Document purpose

Document purpose is to supply both a description of characteristics and functions of the software product, and a useful guide for a complete and working use.

Supervis (data Control and Acquisition System of a stations network fit for remote controlling and/or environmental analysis) is a software product planned to manage a stations network for *environmental* and *industrial* monitoring such as Agrometeo networks, Water Quality Analysis, Air Quality Analysis, Remote Controlling, ecc... . Besides it has been planned to manage stations connected by telephone system (switched, dedicated, cell) or via radio or mixed.

High level functions, whose it is provided, allow to the user a complete interactivity and operativeness with the acquisition and processing parameters of acquired sizes in stations .

By using this software, user can, from Data Processing Centre, interface himself with remote stations to do that operations or commands that would require his presence on the spot.

Owner communication protocol with which ***Supervis*** dial with peripheral systems, called Store & Forward protocol, guarantees communication maximum dependability and provide for (if requested) network access keys. ***Supervis*** is provided with both manual and automatic functions; in the first option user can, through simply enabling them, ask a remote station to receive data or to change acquisition parameters, while in the second option, station provides, on the basis of a programmed scheduling (from time to time operation), to carry out all operations without any intervention by user.

Station received data can be sent both to software devices and/or modules present in the same PC and to LAN physically connected PC to central PC.

When ***Supervis*** enables a function that provides for a communication with a remote station, carries out a functional text to verify data correctness transmission and, if an error occurs, reports the event and supplies a possible solution for correcting.

Storage of all processes carried out on a circular file (LOG file) allows to, even after sometime, to identify possible malfunctions or fault.

2 'Meteonet' software installation

Supervis software is included in the installation of Meteonet LT / SCADANET.

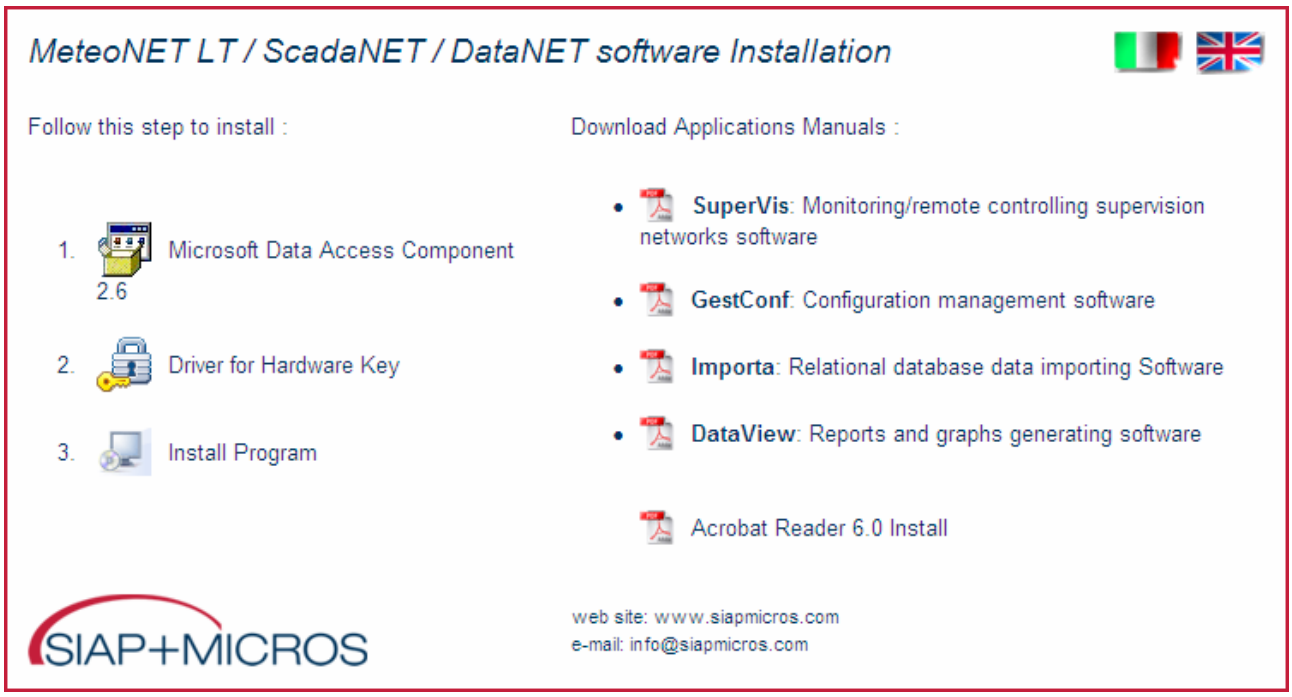
Before proceeding with the package software installation, verify that the calculator whereby the installation will occur, has the following *Hardware* requirements available:

- **Pentium** Microprocessor or higher.
- **16 Mbyte** of memory **RAM** or higher.
- **Hard Disk** with capacity of at least **1 Gbyte** or higher (in terms of the amount of data to manage)
- CD reader.
- Graphic board **VGA** o **SVGA**
- Microsoft Windows™95, 98, NT, 2000, XP, 2003 operating system.

The package software has been tested with a calculator that has the previous characteristics available, therefore a calculator with inferior characteristics will not guarantee the correct working operation.

To proceed with the installation follow the indications below:

- Insert disc in the CD reader;
- Go to the METEONET LT installation directory;
- Launch the program **start.exe**;
- Install the software modules in the order of the list**;**
- Follow the instructions appearing on the video.



By default it will propose the installation of the "C:\Program Files\SiapMicros\" directory, but it is possible to install the software in another position rewriting the name of the directory or the disc unit in the space provided. To proceed click **"Next"** or **"Cancel"** to quit the installation.

All of the package modules are preconfigured to access the Microsoft Access database, created during the installation phase and situated in the C:\program Files\siapmicros\database folder.

If the user chooses a destination folder different from the one indicated he will have to modify the configuration files of the single modules.

2.1 Installed files list

The installation program copies the entire METEONET software package files from the discs inserting them in the specified directory of the following list:

Files copied in the <INSTALLDIR>\Supervis directory

SMSServer95.exe	TranscodificaAnaCEMI2.txt	cRas.dll
VisLog95.exe	TranscodificaAnaCEMI3.txt	GestAllarmi95.exe
TranscodificaHIst.txt	TranscodificaDigCEMI1.txt	SNS3820Per3840.txt
TranscodificaH2.txt	TranscodificaDigCEMI2.txt	IdMis.txt
TranscodificaH6.txt	TranscodificaAnaCEMI1.txt	SNS3820.txt
TranscodificaH1.txt	ConvertitoreCemi.exe	CM5800FE.Ini
CConfPico.dll	msscript.ocx	Supervis.ini
USafe32.DLL	scrrun.dll	IdMis3820.txt
Sx32w.dll	Script.bas	Supervis.exe
TranscodificaStzCEMI.txt	GestImage.exe	Cm5800FE.dll
TranscodificaDigCEMI3.txt	converter.dll	

Files copied in the <WINSYSDIR> directory

MSVBVM60.DLL	EXPSRV.DLL	adodcIT.dll
STDOLE2.TLB	MSEXCL35.DLL	MSDATGRD.OCX
OLEAUT32.DLL	MSTEXT35.DLL	DatGdIT.dll
OLEPRO32.DLL	MSXBSE35.DLL	msbind.dll
ASYCFILT.DLL	TABCTL32.OCX	Ntsvc.ocx
VB6IT.DLL	COMCAT.DLL	Msinet.ocx
MSJET35.DLL	TabCtIT.dll	scrrun.dll
MSJTER35.DLL	MSCOMM32.OCX	TAPIExCt.dll
MSJINT35.DLL	MSComIT.dll	VsVIEW3.ocx
VBAJET32.DLL	MSFLXGRD.OCX	Sscala32.ocx
VBAR332.DLL	FlxGdIT.dll	MSADODC.OCX
MSRD2X35.DLL	MSCOMCTL.OCX	MSStdFmt.dll
MSREPL35.DLL	MSCmCIT.dll	adodcIT.dll
MSVCRT40.DLL	MSADODC.OCX	MSDATGRD.OCX
VB5DB.DLL	MSStdFmt.dll	DatGdIT.dll

COMDLG32.OCX	MSCOMCT2.OCX	wodSFTP.ocx
MSWINSCK.OCX	teechart.ocx	RICHTX32.OCX

Files copied in the <CommonFilesDir>\Microsoft Shared\DAO directory

DAO350.DLL	DAO2535.TLB

Files copied in the <INSTALLDIR>\Configurazione directory

USafe32.DLL	CSMS_Gate.dll	ScriptCreazioneDBCNF.sql
Sx32w.dll	GestConf.ini	ScriptCreazioneDBImmagini.sql
GestConf.exe	SQLUpgrade2.0To5.11.0.sql	ACCUpgrade2.0To5.11.0.sql
CConfSvr.dll	ScriptCreazioneDBAllarmi.sql	ModemInit.txt

Files copied in the <INSTALLDIR>\Importa directory

USafe32.DLL	codcm4000.ini	CM4000.dll
Sx32w.dll	codmma.ini	Importa.ini
CRecentDataSvr.dll	CImportaDati.dll	
Importa.exe	CM4000.exe	

Files copied in the <INSTALLDIR>\DataView directory

USafe32.DLL	RosaVenti.exe	DataView.exe
Sx32w.dll	TEEUSERX.HLP	DataView.ini
RosaVenti.INI	CDataView95.dll	

Files copied in the <INSTALLDIR>\Database directory

Immagini.mdb	Dati.mdb
Cnf.mdb	Allarmi.mdb

2.2 'Supervis.ini' configuration file

The 'Supervis.ini' configuration file present in the installation directory, is created while starting Supervis.ini.

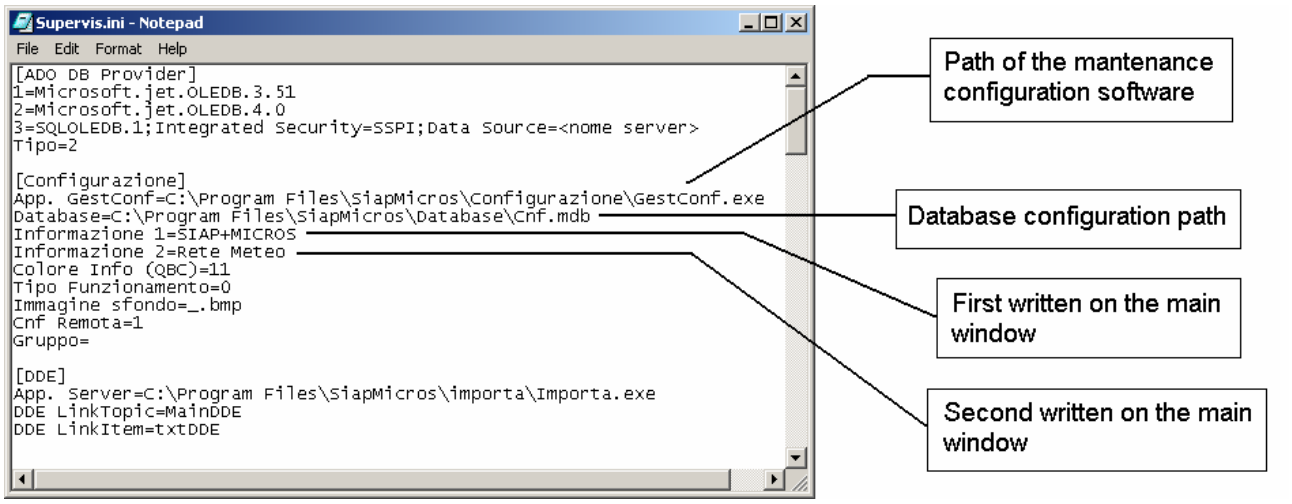
The configuration file is used to store a series of information, which are:

- database path
- path of programs called by ***Supervis***
- user personalization

The configuration file is divided into sections; section name is contained between square brackets.

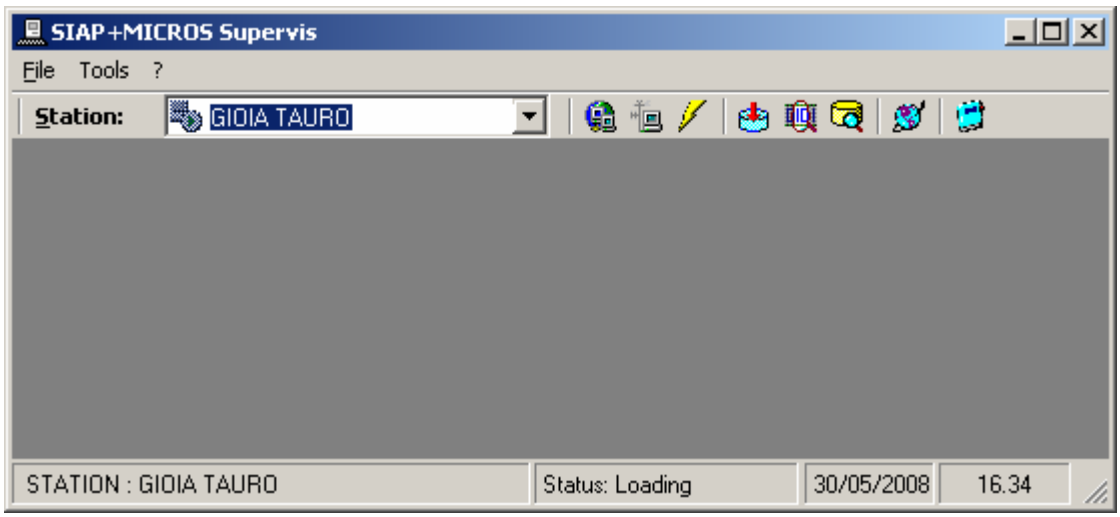
Every section contains a series of lines whereby the left side of '=' symbol represents the label, while the right side makes up the value.

See herein a visual example of the ini file; on image right side is present a description for the most important lines.



3 Starting Supervis

Supervis starting program inserts corresponding icon in the program folder (accessible by using **Starting push button** on tool bar). To start ***Supervis*** is sufficient a double click on the icon (see Picture 1).



Picture 1

In *Microsoft WindowsNT™* operating systems is possible to start ***Supervis*** as *service*; this means that software application starts itself automatically before machine *logon.*

To start ***Supervis*** as *WindowsNT™ service,* to *proceed* as described below*:*

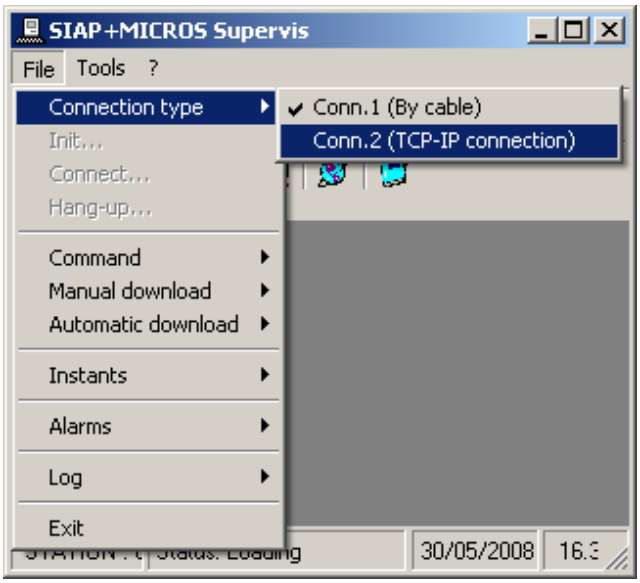
1. start command window;
2. place on Supervis installation folder;
3. key supervis –install.

To uninstall ***Supervis*** as *WindowsNT™ service,* to proceed as described below*:*

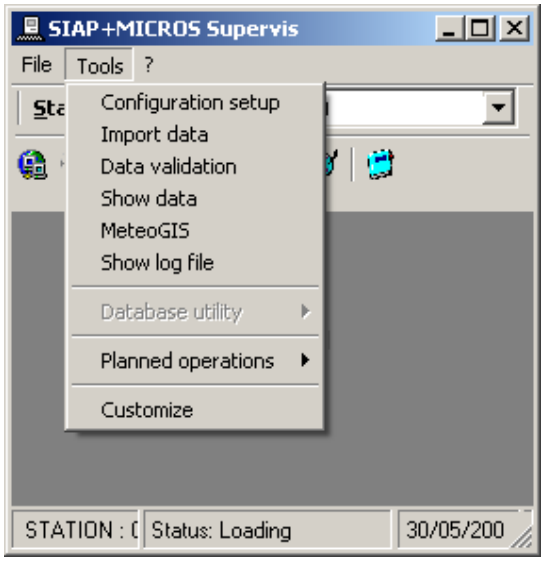
1. start command window;
2. place on Supervis installation folder;
3. key supervis – uninstall.

By using **stations** selector it is displayed the *installed stations list*, while from **File** menu it is possible to log on to all ***Supervis***[1] functions and options.

By using Tool menu or tool bar push button, it is possible to recall all METEONET system applications.



Picture 2



Picture 3

[1] Menu, containing stations list, is visible only if stations have been set up in ***Supervis***.

4 Supervis set up

Supervis can manage till to **300** remote stations and for each one **100** analogical parameters (sensors which supply a signal in voltage, in current, in impulses, ecc...) and **100** ON/OFF parameters (sensors which supply open/closed contact).

First operation ***Supervis*** should manage is to carry out the stations registry and the acquisition parameters registry for each station.

Registry means a requirements list that defines station working characteristics and methods or one or more acquisition parameters.

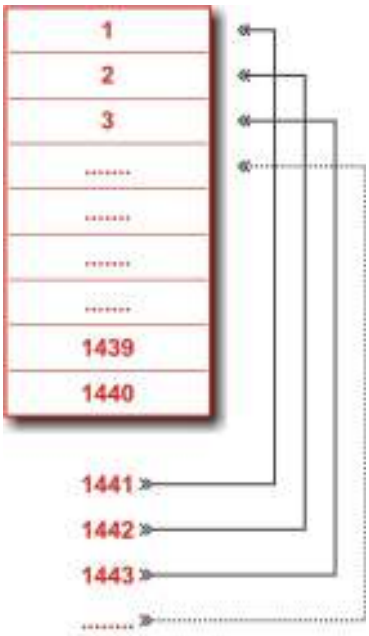
Configuration is got (using a menu) by inserting stations number that must be managed and by setting up the various properties that form registry for each one.

For a more detailed explanation about configuration management please go to relating manual.

5 LOG file management

Supervis allows to manage a LOG file. Such file constitutes a kind of log book in which ***Supervis*** records all carried out operations time after time.

For each carried out operation is saved a message formed by *date*, by station name *at* which operation is referred, and by *description* of operation itself. LOG file is managed in a *circular* way that is once maximum limit of **1440** messages reached, the next ones are saved over existent ones (or rather 1441° will be overwritten the first recorded message, 1442° will overwrite the second and so on). In such way file will contain a fixed number of messages that will be the most recent.



Messages recording on LOG file

5.1 Enable/disable storage on LOG file

To enable storage of messages relative to processes carried out by ***Supervis*** carry on as follow:

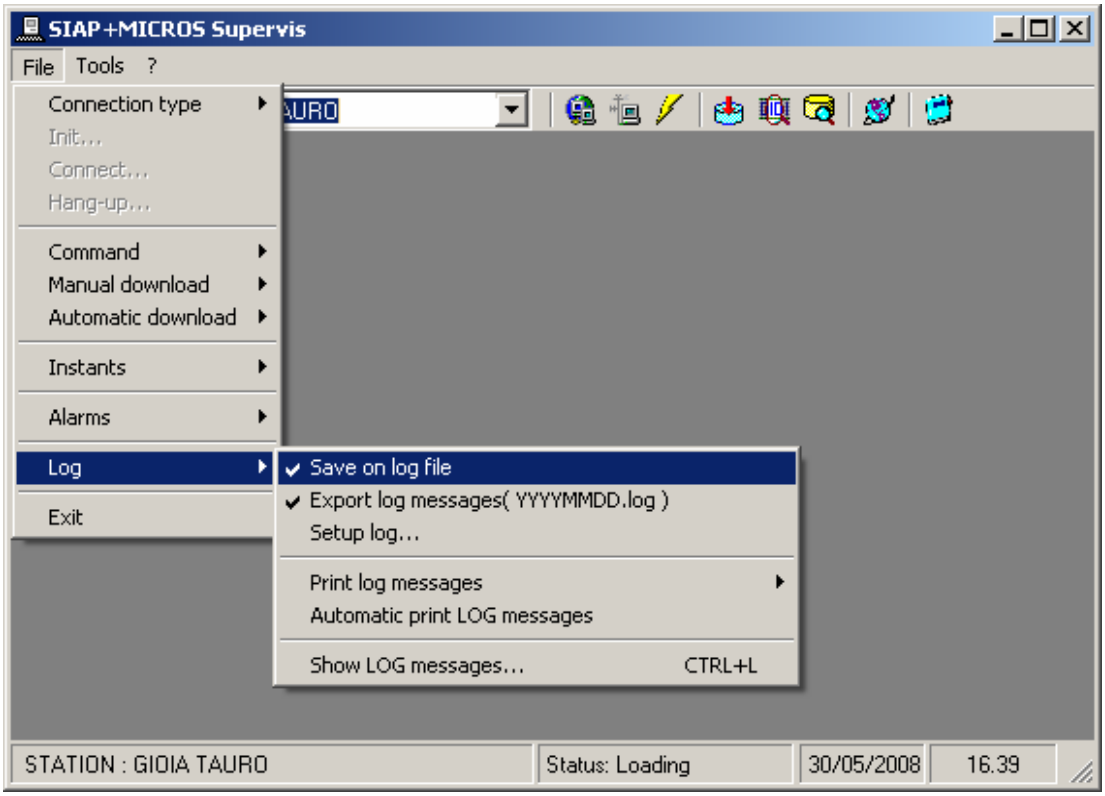
Select from the menu: **File** | **LOG**| **Save on LOG file** (see Picture 4)

Menu item is ticked to confirm that this option is enabled.

To disable storage of messages relative to processes carried out by ***Supervis*** carry on as follow:

Select again menu item: **File** | **LOG**| **Save on LOG file**

The tick symbol "✔" is removed from menu item to confirm it is disabled.



Picture 4

5.2 Enable/disable errors, alarms, malfunctions, information storage

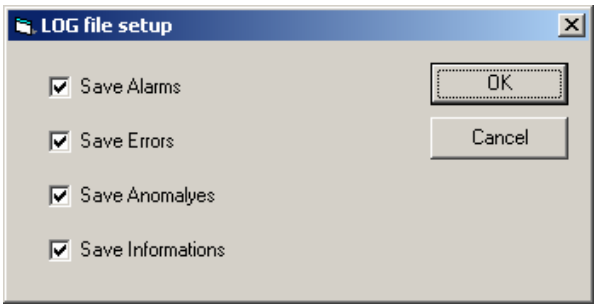
It is possible to save on LOG file a series of information, among which:

- Error messages, created after a failed operation.
- Alarm messages
- Possible malfunctions messages
- Generic messages.

Enabling this option is only possible if the previous is enabled.

To enable messages storage carry on as follow:

1. Select from the menu: **File** | **LOG**| **Save on LOG file** (see Picture 4) it appears the following window.



2. select interested items and click OK to confirm.

5.3 Export LOG messages

It is possible to export therein enclose messages from LOG file, in a chaining method ASCII file. Messages are exported automatically only when **1440** saved messages limit is overcame, therefore they are saved in a ASCII file which name is composed by current year, month, day, in **YYYYMMDD** format with LOG extension, in ***Supervis*** installation folder. Messages are chained to an already present possible file.

To enable automatic messages exporting from LOG file, carry on as follow:

Select from the menu: **File** | **LOG**| **Export LOG messages.**

Menu item is ticked to confirm that this option is enabled.

To disable LOG messages automatic exporting, carry on as follow:

Select again from the menu: **File** | **LOG**| **Export LOG messages.**

The tick symbol "✔" is removed from menu item to confirm it is disabled.

5.4 LOG messages printout

It is possible to print all messages contained on LOG file. Messages can be printed directly on printer or on an ASCIfile with name **Messagges.Log** located in ***Supervis*** installation folder. On file printed messages overwrite a possible file already present.

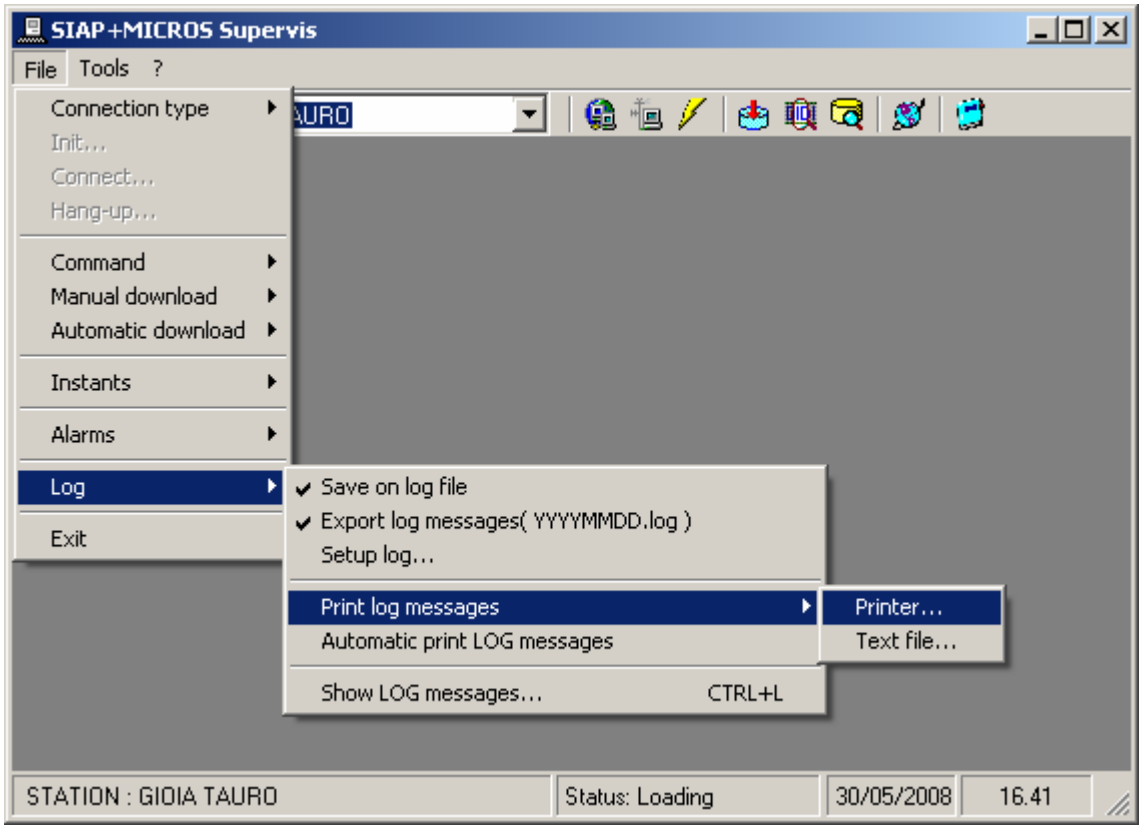
To print the messages, contained on LOG file, on printer, carry on as follow:

Select from the menu: **File** | **LOG** | **Print LOG messages** | **Printer** (see Picture 5)

It is requested user confirmation and if it is affirmative the print is carried out on printer. To print the messages contained on LOG file, on ASCII text file, carry on as follow:

- Select from the menu: **File** | **LOG**| **Print LOG messages** | **Text file.**

It is requested user confirmation and if so affirmative print on is carried out. **Messagges.Log** file is located in ***Supervis*** installation folder.



Picture 5

5.5 View log messages

It is possible to display on video the messages container on LOG file. Messages are displayed in a scrolling list on a window. Window only displays the last 100 file present on LOG file. Each new message saved on LOG file is displayed on window, if it is active.

To display the messages, contained on LOG file, carry on as follow:

Select from the menu: **File | LOG| Show LOG messages.**

It is displayed a window with a scrolling list containing the last 100 messages.

6 Station connection

Supervis is plugged in through a connection device with a remote station. Such device enables communication between Centre PC and station allowing in such way a data transfer. A different connection device establishes a different connection procedure with the station.

It is possible to settle more connection devices for each remote station.

6.1 Connection to a station with dedicated line modem

By using a dedicated line modem as connection device, it is necessary no connection procedure with remote station. In fact dedicated line modem, by logic point of view, does not affect the connection; ***Supervis*** sees communication with the enabled station and can interact with it always. When it is selected a station which have set up this device, menu items, relative to data transfer and command, are enabled.

To connect to a station provided with a dedicated line modem, carry on as follow:

1. Select desired station to which it is to connect by using **Station** selector.
2. Select from the menu **File** | **Connection Type** | **Dedicated Line Modem**. Thanks to this connection device, ***Supervis*** is yet connected with remote station, therefore menu items, relative to commands, are enabled and it is so possible interact directly with the station. Besides, using this connection device, it is no necessary to carry out no disconnection procedure to disconnect from station.

6.2 Connection to a station with switched line modem

By using this connection device type it is necessary to carry out modem connection procedure to connect with a remote station.

This procedure carries automatically out necessary operations to connect Centre PC modem with modem that remote station is provided.

After such connection switched line modem, by a logic point of view, does not affect the connection; ***Supervis*** sees communication with the enabled station and can interact with it.

To connect to a station provided with a switched line modem, carry on as follow:

1. Select desired station to which it is to connect by using **Station** selector.
2. Select from the menu: **File** | **Connection Type** | **Switched Line Modem.**
3. Select from the menu: **File** | **Init** to initialize modem.
4. Select from the menu: **File** | **Connect** [2]

   Such operation allows dialogue window view that displays operations (view, number carrying out, ecc...) that are carried out to connect PC modem with remote station modem.
5. Click **Cancel** to abort operation or to wait for the end procedure.

[2] Item menu has to be enabled. On the contrary it means that the station to which it is to connect has set up a connection device modem different from a switched line modem.

If procedure is successful, ***Supervis*** connects to remote station, therefore menu items relative to commands are enabled and it is so possible to directly interact with the station.

If instead procedure is not successful (advised by a message), ***Supervis*** is not connected with the station menu items relative to command remain disabled, by forbidding each possible dialog with the station.

Using this connection device type, at the end of dialog operations with remote station, it is necessary to carry out modem disconnection procedure.

To disconnect from station carry on as follow:

1. Select from the menu: **File** | **Hang-up** [3]

   Such operation allows dialogue window view that displays operations (view, number carrying out, ecc...) that are carried out to connect PC modem with remote station modem.
2. Wait for procedure end.

It is possible to connect to a new station when procedure is ended.

6.3 Connection to a station with radio apparatus

If station, to which it is to connect, uses a radio apparatus such as connection device, it is no necessary no connection procedure with remote station. In fact radio apparatus, by a logic point of view, does not affect the connection; ***Supervis*** sees communication with the enabled station and can interact with it always.

When it is selected a station that has set up this device, menu item relative to commands and to data transfers are enabled.

To connect to a station provided with radio apparatus carry on as follow:

1. Select desired station, to which it is to connect, by using **Stations** selector.
2. Select from the menu: **File** | **Connection Type** | **By Radio.**

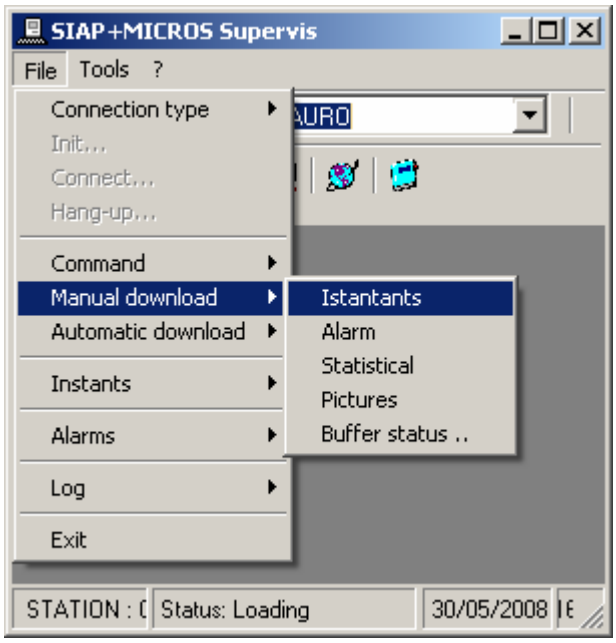
Thanks to this connection device type, ***Supervis*** is already connected to remote station, therefore menu items relative to commands are enabled and it is so possible to interact directly with the station. Besides with this connection device type is not necessary to carry out no disconnection procedure to disconnect from station.

[3] Menu item has to be enabled. On the contrary it means that the station, to which it is to connect, has set up a different connectiondevice from switched line modem.

7 Instant data management

Supervis is in a position to manage instant data transmission and view that remote station data-logger acquires and saves communication module in the assigned area. Instant data are saved at each data-logger acquisition cycle overwriting the previous: this allows the station to make available always the last instant situation. ***Supervis,*** by using a specific command, carries out instant data transfer from remote station towards the Centre.

Instant data can be transferred only once, or continuously for a *time-out* set up in minutes.



Picture 6

7.1 Instant data transfer

To transfer instant data from remote station to the Centre to display them in synoptic carry on as follow:

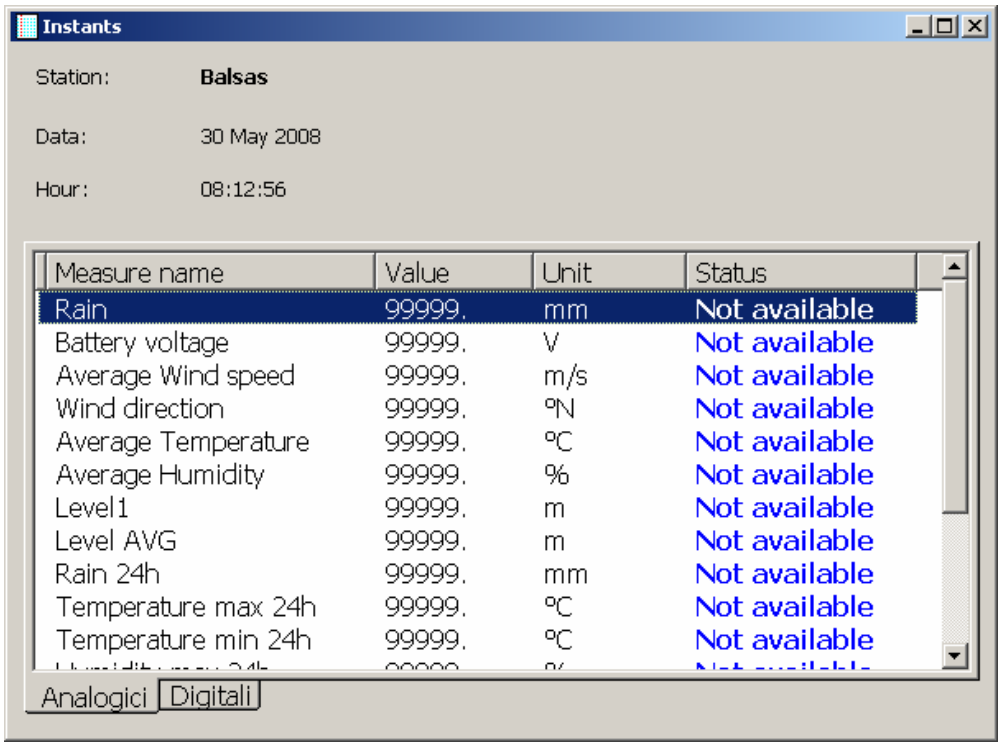
1. Select desired station, to which it is to connect, to transfer instant data by using l **Station** selector.
2. Carry out connection procedure only if the station had a switched line modem as connection device.
3. Select from the menu: **File** | **Manual download** | **Istantants** (see Picture 6); such operation involves Instant data transfer and view in synoptic.
4. Select from the menu: **File** | **Instants** | **Show instants** (see Picture 7) to display instant window.
5. Carry out disconnection procedure if the will is to disconnect from remote station (only if it had been disconnection procedure).

7.2 Continuous transfer of Instantaneous data

It is possible to transfer the instantaneous data continuously from the remote station to the Centre for a period of time that can be set by default. This allows the user to monitor the stations' instantaneous situation for a given time period[4].

To transfer instantaneous data continuously from the remote station, proceed as follows:

1. Select the desired station to which connect to transfer the instantaneous data by using the **Stations** selector.
2. Proceed with the connection but only if the station has a switched line (dial-up) connection modem.
3. Select from the menu: **File | Automatic download | Enable continuos instants download.**
4. Set the duration of the process (*time-out*) in minutes, confirming with the **OK** button afterwards; this will cause the continuous transfer of instantaneous data and viewing in synoptic with an interval of 10 seconds between one transfer and the next.
5. Select from the menu: **File | Instants | Show instants.** (see Picture 7) to view the instantaneous window.
6. Reselect from the menu: **Automatic download | Enable continuos instants download** to interrupt the procedure, or wait until the end for *time-out*.



Picture 7

[4] The continuous transfer of instantaneous data of a station that has a switched line (dial-up) modem generates more telephone (clicks per unit) costs and therefore is more expensive.

Inside the table not only do we see the instantaneous data's true value but also its' *Name*, *Engireeric Unit* and *Acquisition Status*.

The following table shows the meaning for possible status values:

STATUS	MEANING
Not Available	The instantaneous data has not been sent from the peripheral.
Measure	The instantaneous data has been acquired regularly.
Err. Elettrico	The instantaneous data has not been acquired correctly.
Out of monitor	The instantaneous data is not configured out of monitor.
Out of scale	The instantaneous data is outside the tollerance boundary.
Invalidated (D)	The instantaneous data is invalidated from a digital input.
Invalidated (A)	The instantaneous data is invalidated from an analog input.
Minimum alarm	The instantaneous data is on minimum alarm.
Minimum alert	The instantaneous data is on minimum alert.
Maximum alert	The instantaneous data is on maximum alert.
Maximum alarm	The instantaneous data is on maximum alarm.
Waiting riconditioning	The instantaneous data is waiting to be riconditioned.
Alarm	
Test	The instantaneous data is in test phase.
Wait. Zero Cal.	The instantaneous data is waiting for zero (zero calibration).
Zero Cal.	The instantaneous data is on zero measure (zero calibration).
Wait. Span Cal.	The instantaneous data is waiting for span (span calibration).
Cal. Span	The instantaneous data is on span measure (span calibration).
Discharge	The instantaneous data is in discharge phase (calibration end).

8 Alarm management

Supervis is able to manage alarm transmissions (when they exceeds the threshold for both an analog type parameter, as well as those of ON/OFF variation as digital type parameters) which the station data-logger acquires and memorized.

Depending on the connection device utilized (dedicated line modem, swiched line/dial-up modem, radio apparatus) ***Supervis*** and remote station adopt a different logic to manage alarms. ***Supervis*** manages only the acquisition and memorization of the alarms' historic archive, while the management of these in terms of viewing and/or printing is operated by the ***ALLARMI*** software.

It is possible to select the viewing of alarms for all stations, for the station selected, for all alarms, only for silenced alarms or only for alarms not silenced.

Pressing the **Update** key gives an updated view of the alarms.

Pressing the **Silence** key puts a flag beside every alarm to indicate that the alarms have been analized by the user.

Pressing the **Print** key gives a print-out of what appears on the grid.

8.1 Receiving alarms in interrupt

Usually when the remote station is connected to the Centre by means of a switched line (dial-up) modem connection device, it is the station that takes the initiative to send the alarm to the Centre.

In case of an alarm, the remote stations' data-logger memorizes a copy (under ASCII record form) on the buffer of the communication module, assuring in this way a continuous back-up; then it activates the whole procedure necessary to send the alarm to the Centre.

The remote station carries out the connection procedure from its own switched/dial-up telephone line modem to the one installed at the Centre: once the connection is operative (if non successful on the first try, the station makes a several number of attempts) it sends the alarm record with S&F protocol.

An important characteristic is the re-transmission of the alarm record upto a maximum of 3 tryes in case ***Supervis*** is unable to recognize it immediately. Once the alarm record transmission is complete it is always the remote station that initiates the modem hang-up procedure to shut-down communication with the Centre.

If ***Supervis*** has recognized the alarm received from the remote station, it memorizes it in a local database. The alarms can then be viewed and/or printed-out using the ***ALLARMI*** software.

The alarm message can be sent to the technicians listed in the user registry via SMS or through vocal synthesis.

The application to which the SMS sending is delegated is SMSSERVER (see more).

To activate this option:

- Select from the menu: **File** | **Alarms** | **Enable technicians**. The menu item is checked "✔" to confirm that this option has been enabled.

To disable the alarm record transmission procedure, proceed as follows:

- Select again from the menu. **File** | **Alarms** | **Enable technicians**. From the item menu, the check mark "✔" is removed to confirm this option has been disabled.

8.2 Alarm transfer

In cases where the remote station is connected to the Centre through a dedicated line modem or radio apparatus the opposite logic (with respect to the one described in the paragraph above) is true. In these cases it is ***Supervis*** that initiates the procedure to transfer alarms coming from the stations' communication module buffer to the Centre in the local database.

To carry out the alarm transfer from the remote station to the Centre, proceed as follows:

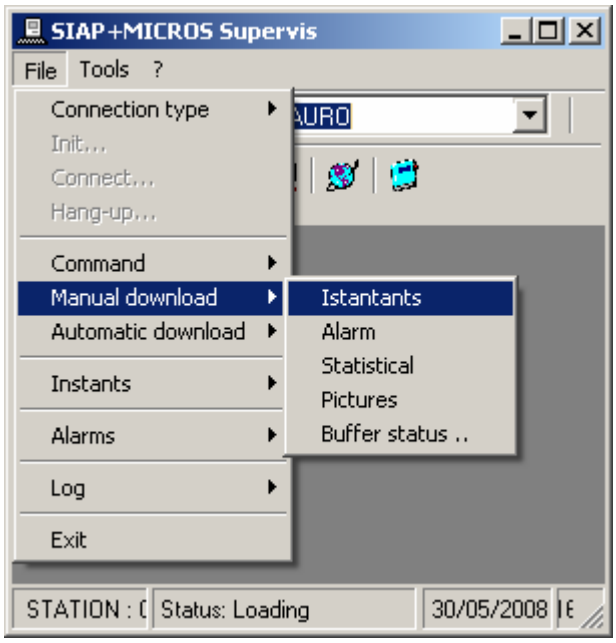
1. Select the station to which connect (to transfer the instantaneous data) by using the **Stations** selector.
2. The connection procedure with the station should be done only if necessary.
3. Select from the menu: **File** | **Manual download** | **Alarm.**

   This operation initiates the transfer of alarms from the remote station to the Centre. Once the transfer is complete ***Supervis*** memorizes the alarms in its' local database.
4. Follow-up with the hang-up procedure if necessary.

9 Statistical data management

Supervis is able to manage the statistical data transmission that the remote stations' data-logger acquires and memorizes in the communication module for the area to them assigned. Data is memorized at every occurrence of the data-logger memory cycle, joining together with those possibly already existing.

Supervis upon specifc command, carries out the transfer of all the remote stations' statistical data to the Centre. Once the transfer is complete, the data is then erased freeing up the space in the communication modules' buffer. To manage this data with a relational database the ***Dataview*** software is used.



Picture 8

9.1 Statistical data transfer

To transfer statistical data from the remote station to the Centre, proceed as follows:

1. Select the station to which connect (to transfer the statistical data) by using the **Stations** selector.
2. The connection procedure with the station should be done only if necessary.
3. Select from the menu: **File** | **Manual download** | **Statistical** (see Picture 8)

   This operation initiates the transfer of statistical data from the remote station to the Centre.
4. Follow-up with the hang-up procedure if necessary.

The statistical data transferred to an ASCII file is then assigned/destined based on the property setting: **Statistics data destination**

9.2 Automatic transfer of statistical data

Supervis is able to manage the outomatic transmission of statistical data from the remote station to the Centre. Such operation occurs in a way that is completely automatic only and for all stations that have the **Station on line** property enabled.

This operation takes place periodically *(scheduling)* based on the set time-schedule that ***Supervis*** follows to connect in order to transfer data.

To activate the statistical data automatic transfer procedure, proceed as follows:

1. Select from the menu: **File** | **Automatic download** | **Enable automatic statistical download.** The menu item is checked "✔" to confirm that this option has been enabled.

To disable the statistical data automatic transfer procedure, proceed as follows:

1. Select again from the menu: **File** | **Automatic download** | **Enable automatic statistical download** from the item menu, the check mark "✔" is removed to confirm this option has been disabled.

9.3 Immediate transfer of statistical data

The statistical data automatic transfer procedure, can be activated immediately without having to wait for the time set by default. The enabling of this option does so that the immediate transfer procedure of statistical data occurrs only and for all stations that have the **Station on line** property enabled.

To activate the statistical data immediate transfer procedure, proceed as follows:

1. Select from the menu: **File** | **Automatic download** | **Statistical download.**
2. Press **OK** to confirm or press the **Cancel** push button to cancel the operation.

This operation initiates the immediate transfer of statistical data from the stations on-line, beginning with the first up to the last station configured.

9.4 Extempore data request

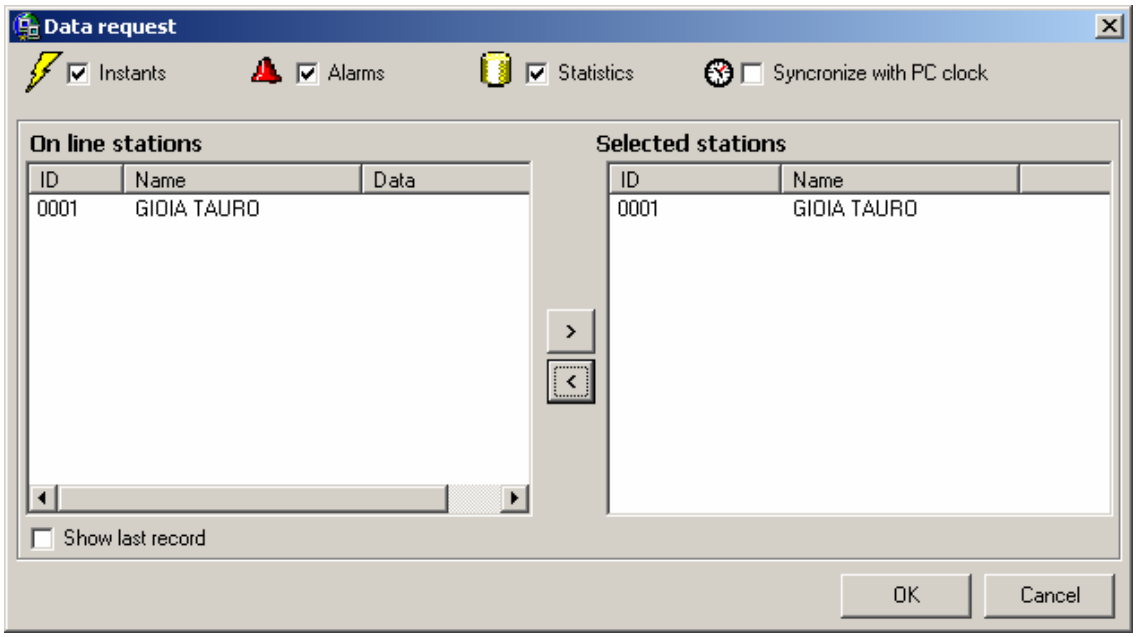
The procedure for transferring instant data, alarms and/or statistical data for **a group a stations**, can be activated immediately without having to wait for the time set by default.

To activate the immediate transfer of data procedure, proceed as follows:

1. Press the key .
2. Select the type of data requested
3. Select one or more stations. The date of the last record memorized is indicated beside the name of the station. If the last record memorized is previous to a week, the '<' symbol is displayed

3. Press **OK** to confirm or press the **Cancel** push button to cancel the operation.

This operation initiates the immediate transfer of data requested from the stations selected. If the request for instant data has been enabled, once the transfer process is complete, a mask for each station will display the latest data gathered.

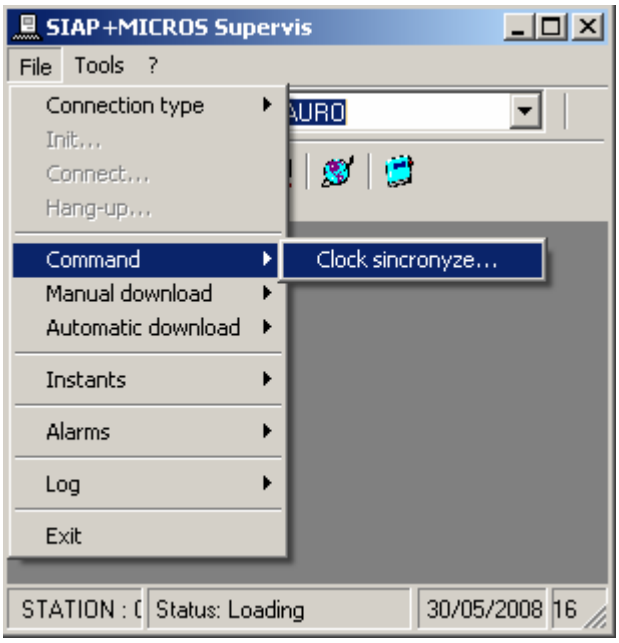


10 Remote controlling

By remote controlling is intended the possibility to carry out programming operations on the peripheral stations' data-logger using the Centre PC.

With this function it's possible to intervene on the software implemented in the stations' data-logger by changing its behaviour. In detail it's possible to visualize and change the parameters that regulate the acquisition and elaboration of data and/or control eventual particularly elaborate cycles.

All of the ***Supervis*** remote control functions, starting from version 4.7.0, have been referred to the **GestConf** software application with the exception of the clock adjustment.



Picture 9

10.1 Clock adjustment

This programming function allows to modify the remote stations' data-logger clock/timer and synchronize it with the current or legal time.

It is possible to synchronize the remote stations' clock with the calculator clock or any desired setting.

To change a remote stations' clock/timer, proceed as follows:

1. Select the desired station using the **Stations** selector.
2. The connection procedure with the station should be done only if necessary.
3. Select from the menu: **File** | **Command** | **Clock synchronize** (see Picture 9)

   This transaction brings up a dialog window whereby it is possible to set the clock (time and date) and program it in the remote station.
4. Press **Enter** to send the clock time setting to the remote station, or press **Cancel** to abort the operation.
5. Follow-up with the hang-up procedure if necessary.

Clock synchronize description

The dialog window contains two overlapping pages selectable with a click of the mouse on each respective tab. The two pages contain respectively the properties relative to the clock setting and setting of the date.

Figura 10

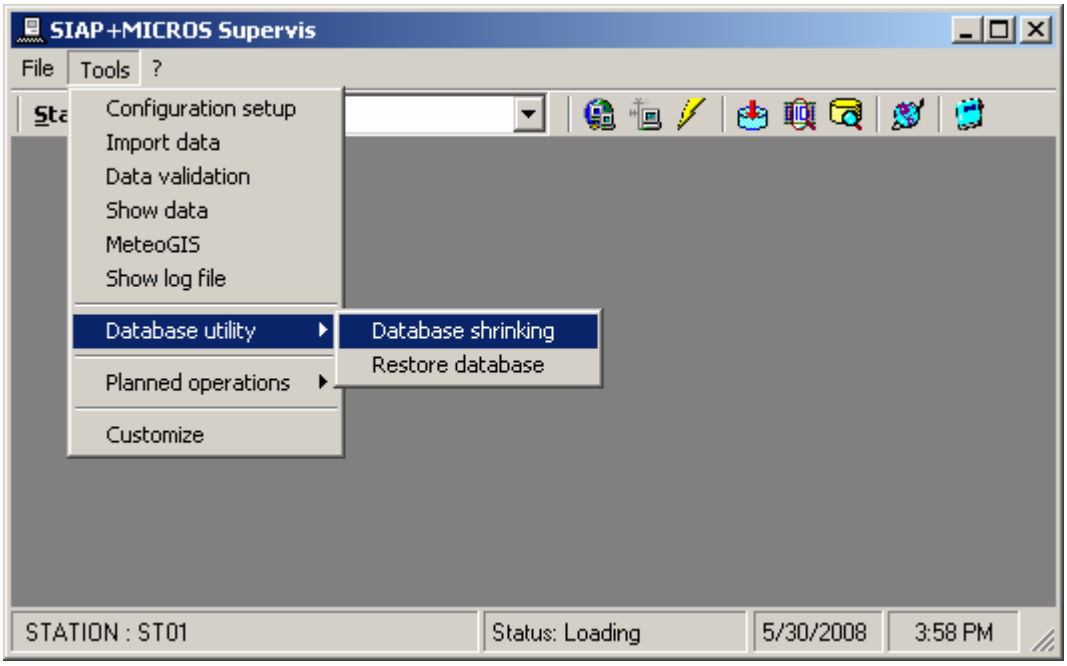
Synchronize with system clock:	This property must be activated in order to program the remote stations' clock same as the PC clock (remote controlling), or do not activate if setting the clock manually is preferred. Once the property is activated it is no longer possible to set the clock manually. This property is active by default.
Hours:	Current hour of the PC clock. The scroll bar allows to change it from 0 to 23.
Minutes:	Current minutes of the PC clock. The scroll bar allows to change them from 1 to 59.
Seconds:	Current seconds of the PC clock. The scroll bar allows to change them from 1 to 59.
Day:	Current day of the PC clock. The scroll bar allows to change it from 1 to 31.
Month:	Current month of the PC clock. The scroll bar allows to change it from 1 to 12.
Year:	Current year of the PC clock. The scroll bar allows to change it from 00 to 99.

The changes made to the clock, can be seen in this display window.

In the picture that follows, a synoptic example of a network whereby remote controlling is possible, is shown.

11 Archive maintenance with Supervis

Supervis provides a series of tools for maintaining the archives, such as compacting/shrinking and reindexation in case of damage.



11.1 Database file shrinking

Makes a copy of the DATABASE file. If the file is fragmented it re-organizes the structure on disc. It's possible that a file becomes fragmented when there are many changes made to the DATABASE (data adding, erasing etc.). The compacted database file is usually smaller in size with respect to the original and functions better. For the shrunk/compacted DATABASE file it is possible to use, as name of origin, the same name or a different name to create a distinct file. If the same name is used, the original file will be substituted with the compacted version, if instead a different name is used, the init file of the Meteonet software application must be modified.

To compact/shrink the *DATABASE file,* proceed as follows:

- Select from the menu: **Tools** | **Database utility** | **database shrinking**.
- Set the name and path of the original *DATABASE file* to be shrunk.
- Set the name and path of the DATABASE *file* and click on the 'Open' key. A second window will appear, asking the user to set the name and path of the destination DATABASE *file* on which to shrink.
- Set the name and path of the *DATABASE file* and click on the 'Save' key.

The shrinking process will take place only if there is enough memory space on the disc for both the original *DATABASE* version as well as the shrunk version. The shrinking process can take some time to complete in proportion to the dimensions of the original *DATABASE* file.

11.2 Database file reindexation

Reindexes and recovers/restores a damaged *DATABASE* file. A database may get damaged by exiting the application in an unusual way, in case of tension interruption or due to hardware problems. The *DATABASE* will not get damaged if the proper procedures to exit the application are followed.

To carry out the reindexation of a DATABASE file, proceed as follows:

- Select from the menu: **Tools** | **Database utility** | **Restore database.**

The reindexing process can also take some time to complete, in proportion to the dimensions of the original *DATABASE* file.

11.3 Automatic periodic shrinking of the database files

The archive maintenance procedure can be done periodically *(scheduling)* based on the time pre-setting of the operations programmed.

To activate the automatic shrinking procedure automatically, proceed as follows:

- Select from the menu: **Tools** | **Planned operations** | **Automatic database shrinking.** The menu item is checked "✔" to confirm that this option has been enabled.

To disable the automatic shrinking procedure, proceed as follows:

- Select again from the menu: **Tools** | **Planned operations** | **Automatic database shrinking** From the item menu, the check mark "✔" is removed to confirm this option has been disabled.

12 Programmed operations

12.1 Automatic compilation of the data table

The automatic compilation of the data table expects to fill the data table with all the records predicted for the current day, memorizing date and time leaving unchanged the data contents.

To activate the automatic compilation of the data table process, proceed as follows:

- Select from the menu: **Tools** | **Planned operations** | **Automatic data structure compilation** The menu item is checked "✔" to confirm that this option has been enabled.

To disable the automatic compilation of the data table, proceed as follows:

- Re-select from the menu: **Tools** | **Planned operations** | **Automatic data structure compilation.** From the item menu, the check mark "✔" is removed to confirm this option has been disabled.

12.2 Automatic start-up of daily validation

The daily validation procedure can be done periodically *(scheduling)* based on the time pre-setting of the operations programmed. If enabled, the Valida95 software application activated will carry out the background operation.

To enable/disable the daily validation of data procedure select/unselect from the menu: **Tools** | **Planned operations** | **Daily validation.**

12.3 Automatic sending of views

The automatic sending of views procedure takes place periodically (*scheduling)* based on the time pre-setting of the exports programmed.

The application carries out the views' elaboration producing a file with a set format, and delegates a second application SMSSERVER at the sending of the file. In such way the work load is distributed and ***Supervis*** can continue to interrogate the peripherals.

To enable/disable the exporting of the views select/unselect from the menu: **Tools** | **Planned operations** | **Views export.**

12.4 Importing from folder

The reading from folder operation takes place periodically (*scheduling)* based on the time pre-setting of the exports programmed.

The application carries out the verification of files present in the folder and sends them to the **Importa** software application through DDE

To enable/disable the importing from folder select/unselect from the menu: **Tools** | **Planned operations** | **Import from folder.**

12.5 Macro implementation

The operation of macro implementation is periodically carried out (*scheduling*) based on time pre-settings of planned exportation.

Application software processes set script file and reports possible errors on log.

Script can be used to carry out a remote controlling (read values from already downloaded instant data and send commands to peripherals), to carry out controls on parameters values and to generate alarms, to carry out operations on file, to custom data extractions and send them through SMSSERVER, to carry out FTP operations…

To enable/disable macro carrying out select/deselect from the menu: **Tools** | **Planned operation** | **Macro execution.**

12.6 E-Mail reading

The operation of E-mail reading is carried out periodically (*scheduling)* based on time pre-settings of planned exportation.

Application software connects to E-mail server and extracts messages corresponding to set up filter (sender).

Message object and body are chained and saved on specified folder file (destination).

Possible attachment is saved on a separated file.

To enable/disable viewed E-Mail reading select/deselect from the menu: **Tools** | **Planned operation** | **Reading e-mail.**

13 SmsServer

SMSSERVER is able to send this kind of message:

- SMS
- Vocal
- File WAV
- File by FTP
- File by e-mail
- FAX

Destination via **SMS** expects that following parameters had been set up:

- Telephone number indicates the receiver telephone number.
- SMS message with 160 characters maximum length.

Destination **VOICE** foresees that following parameters had been set up:

- Telephone number show the receiver telephone number.
- Message.
- Message string is summarized and sent via modem. The system uses TTS conversion (Text to Speech). To use this function it is necessary to have a vocal modem.

Destination Wav file expects that following parameters had been set up:

- Telephone number indicates the receiver telephone number.
- Wav file relative to message to send. To use this function it is necessary to have a vocal modem.

Destination via **Ftp** expects that following parameters had been set up:

- Access user to FTP server.
- Password (not obligatory) for access to FTP server.
- The path shows the temporary file complete path on which the view will be created.
- U.R.L. shows FTP server name. ex. Ftp://1.0.0.1

In R.A.S. Remote Access frame sets up parameters for a possible RAS connection that is necessary to reach the server.
Note. The system allows to create and use defined by system RAS connection.

Destination via **E-Mail** expects that following parameters had been set up:

- The path indicates the temporary file complete path on which the list will be created.
- Server indicates receiving server name for e-mail, ex. mail.libero.it for Libero server.
- E-Mail destination indicates receiver/s name; to set up more receivers insert E-Mail addresses separated by pipe character '|'.

In R.A.S. Remote Access frame sets up parameters for a possible RAS connection that is necessary to reach the server.
Note. The system allows to create and use a defined by system RAS connection.

Destination via **Fax** expects that following parameters had been set up:

- Telephone number indicates the receiver telephone/fax number.
- The path indicates the temporary file complete path on which the view will be created.
- A: indicates destination fax

13.1 SMSSERVER configuration

Application software to which the sending of views is delegated is SMSSERVER already used for SMS sending.

Application allows to custom following items:

FTP sending

- Sending through Secure File Transfer Protocol (SFTP)

E-mail sending

- E-Mail sender name.
- E-Mail sender address.
- Message object.

Vocal sending

- Hardware device (modem).
- Message repetition number.

If modem does not support vocal messages sending, the receiver telephone will only ring.

Fax sending
Fax sending system can use the service.

- FaxServer included in W2000 installation.
- Symantec WinFax Pro v.8.0: in this case it is possible set up cover printing with the possible text.

Note. The following limitations are valid for both fax-sending services.

Attachment sending has been tested with the following format:

- Text (txt)
- bmp
- Htm
- jpg

To open jpg and Htm file, system uses default applications that are Internet Explorer.

Since there are problems to open and convert Jpg and in Htm case (since Internet Explorer refers to printer selection page instead of automatically selecting FAX), it is necessary to associate files to different programs such as jpg->paintBrush e Htm->Word.

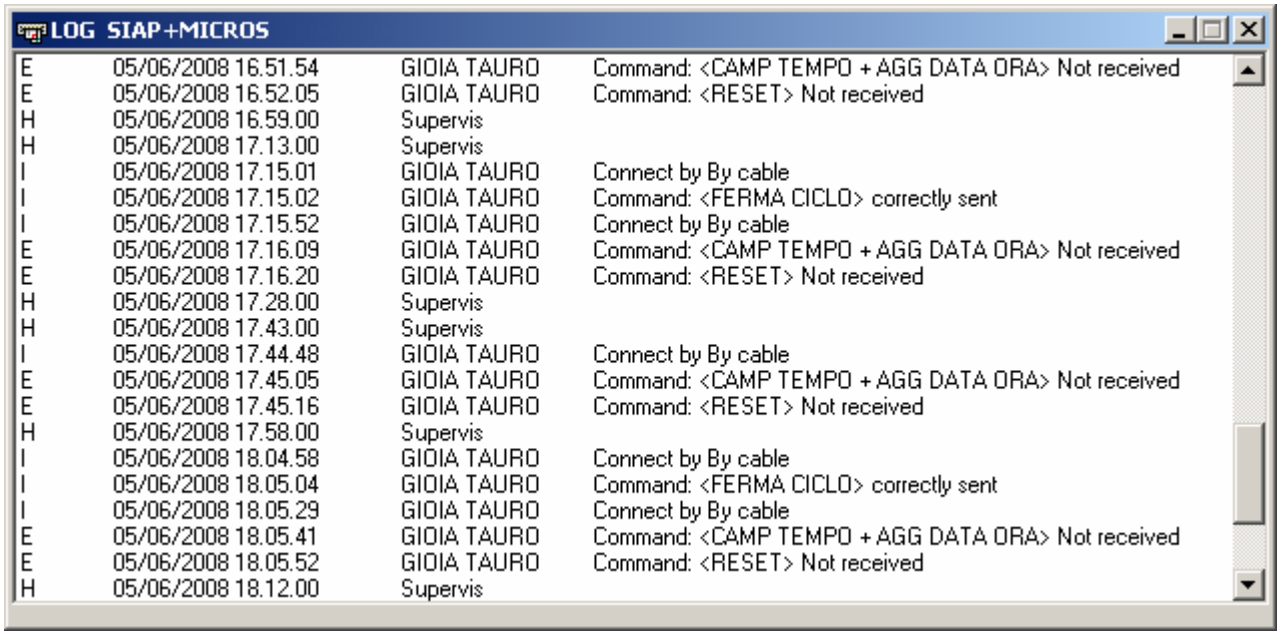
This association possibly must be done only at folder level and not at all files level.

If *Supervis* system is starter as service, applications started by program can not log on into network printers but only into local printers.

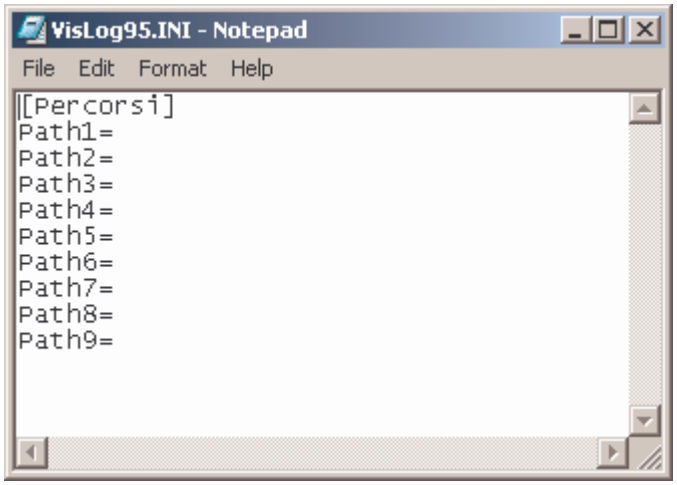
For using Winfax Pro the system can not be started as NT service because WinFax Pro service is not accessible by NT-service user.

14 VisLog

VisLog is an application software related to Meteonet software package that allows to display and print Log files of Meteonet various modules.



It is necessary to set up the Log files path on Vislog95.ini configuration file, as represented below.



By using Vislog it is possible:

- to display current day log or display previous or next days log by using quick choice keys.
- to analyze the same day log file of other Meteonet application by using quick choice keys.
- to display messages by using filter's criteria.
- to set up selected log in continuous refresh.