

Telemetry Solutions

# Kerwin

Version 7

*Telemetry Supervision Software*

Reference manual



<b>1</b>	<b>INTRODUCTION .....</b>	<b>5</b>
<b>2</b>	<b>SECURITY WARNING .....</b>	<b>6</b>
<b>3</b>	<b>PRESENTATION OF THE SOFTWARE .....</b>	<b>7</b>
3.1	CAPACITIES OFFERED BY KERWIN.....	7
3.2	KERWIN'S BASIC FUNCTIONALITIES.....	8
3.3	KERWIN'S ALARM/EVENT MODULE .....	9
3.4	KERWIN'S ALERT MODULE .....	9
3.5	KERWIN'S RETRIEVAL MODULE .....	10
3.6	KERWIN'S PRESENTATION MODULE .....	10
3.7	KERWIN'S SYNOPTIC MODULE.....	11
3.8	WEB MODULE OF KERWIN (KERWEB).....	11
3.9	DATA EXCHANGE MODULE WITH APPLICATION .....	12
<b>4</b>	<b>INSTALLATION.....</b>	<b>13</b>
4.1	PRE-REQUISITES .....	13
4.2	IMPLEMENTATION.....	13
4.3	DEFAULT CONFIGURATION .....	22
<b>5</b>	<b>GETTING STARTED, RECOMMENDATIONS.....</b>	<b>23</b>
5.1	KERWIN SOFTWARE APPLICATIONS .....	23
5.2	LAUNCHING AND SHUTTING DOWN THE KERWIN SOFTWARE.....	26
5.3	PASSWORDS AND ACCESS LEVELS .....	27
5.4	PRESENTATION OF THE MENUS AND THE TOOLBAR.....	28
5.5	ACCESS TO THE SOFTWARE'S FUNCTIONS.....	33
5.6	CONFIGURING AND COMMISSIONING PROCEDURE .....	34
5.7	MANAGING THE RTUS' CONFIGURATIONS .....	35
<b>6</b>	<b>OPERATING.....</b>	<b>38</b>
6.1	SITE FORM .....	38
6.2	VARIABLE FORM .....	41
6.3	FILE FORM .....	42
6.4	FILECHARTERS .....	47
6.5	EVENT FORMS.....	52
6.6	LOG/SNAPSHOT .....	63
6.7	SPREADSHEET .....	66
6.8	TASK SCHEDULER.....	69
6.9	MINITEL / WEB BROWSER.....	70
6.10	SYNOPTICS – GENERAL VIEW OF THE SITES' STATUSES .....	75
6.11	SYNOPTICS – VARIABLE ANIMATION .....	80
6.12	ALERTS .....	84
6.13	USING REMOTE ACCESSES .....	92
<b>7</b>	<b>PARAMETERING.....</b>	<b>100</b>
7.1	DATA SERVER START-UP CONFIGURATION.....	100

7.2	HMI START-UP CONFIGURATION.....	117
7.3	COMMUNICATION CORE START-UP CONFIGURATION .....	122
7.4	USERS.....	128
7.5	CHANGE PASSWORD.....	128
7.6	ACCESS RIGHTS .....	129
7.7	DATABASE-SQL QUERY .....	131
7.8	ADVANCED.....	131
7.9	COMM-LINKS .....	136
7.10	SITE GROUPS .....	140
7.11	SITES .....	141
7.12	WORKGROUPS .....	152
7.13	VARIABLES.....	157
7.14	INTERNAL VARIABLES .....	167
7.15	PERIPHERALS.....	177
7.16	FILES.....	178
7.17	THE “VIRTUAL” SITES .....	187
7.18	SYNOPTICS – SITE VIEWS .....	190
7.19	SYNOPTIC – VARIABLE ANIMATION .....	197
7.20	TASK SCHEDULER.....	210
7.21	ALERTS .....	228
7.22	SPREADSHEET .....	249
7.23	FILECHARTER.....	267
7.24	CATEGORY .....	275
7.25	CLASS .....	275
7.26	DIGITAL AND ANALOG UNIT.....	276
7.27	TEMPLATES.....	278
7.28	EVENTS DEFINITIONS .....	279
<b>8</b>	<b>MAINTENANCE .....</b>	<b>280</b>
8.1	DAILY MONITORING .....	280
8.2	REGULAR SAVING .....	280
8.3	REGULAR PREVENTIVE MAINTENANCE.....	280
<b>9</b>	<b>INCIDENT RESOLUTION.....</b>	<b>282</b>
9.1	FAULT ANALYSIS .....	282
9.2	COMMUNICATION PROBLEMS .....	282
9.3	CYLICAL CALL FAULTS .....	284
9.4	SLOW OPERATING OF KERWIN.....	284
9.5	KERWIN WON’T OPEN OR SUDDENLY SHUTS DOWN ON OPENING .....	284
<b>APPENDIX A</b> .....	<b>285</b>	<b>285</b>
CONFIGURATION OF AN XFLOW SITE.....		285
<b>APPENDIX B</b> .....	<b>293</b>	<b>293</b>
WEB CONFIGURATION OF AN XFLOW SITE .....		293

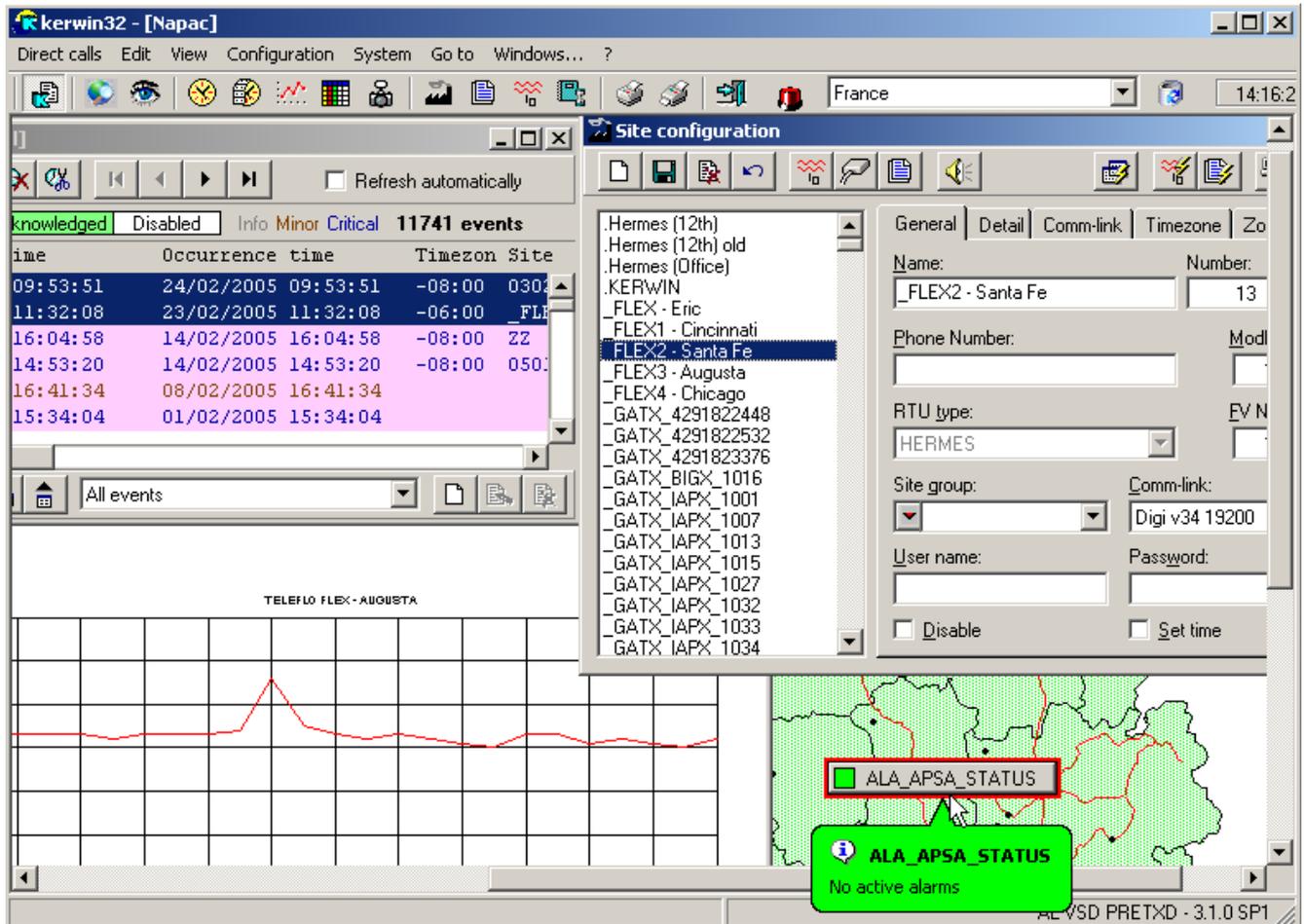
<b>APPENDIX C</b> .....	<b>299</b>
CONFIGURATION OF A WADE SITE .....	299
<b>APPENDIX D</b> .....	<b>309</b>
WEB CONFIGURATION OF A W@DE SITE .....	309
<b>APPENDIX E</b> .....	<b>316</b>
CONFIGURATION OF A W310/BRIO SITE.....	316
<b>APPENDIX F</b> .....	<b>323</b>
OPC DA SERVER .....	323
<b>APPENDIX G</b> .....	<b>335</b>
OPC HDA SERVER.....	335
<b>APPENDIX H</b> .....	<b>346</b>
COM/DCOM CONFIGURATION FOR OPC CLIENT/SERVER .....	346
<b>APPENDIX I</b> .....	<b>353</b>
COM/DCOM CONFIGURATION FOR OPC CLIENT/SERVER .....	353

### 1 INTRODUCTION

KERWIN is a Remote Management master station running in a Windows® environment that is used to monitor geographically distant technical facilities.

KERWIN is designed to be linked with Schneider Electric Telecontrol local control units via various media (telephone network, dedicated line, home bus, radio, Ethernet, Internet or GSM/GPRS network). It acts as a complete management and decision-making assistance tool.

It can operate as a single station or multiple station system.



General view of the KERWIN software

## **2 SECURITY WARNING**

The operating security of your master station depends on following strict instructions regarding both its operation and the organization of its maintenance.

Access levels will be allocated to users according to their needs and responsibilities, each user having a freely programmable password to ensure access protection.

Maintenance operations on hardware or on the files and software installed must be carried out by only one or two people responsible internally for maintenance of the master station; where possible, these maintenance operations must be carried out in close communication with Schneider Electric Telecontrol customer service department.

Any changes to the hardware (change of printer, etc) or software (installing of new software, etc) environment must be carried out with the utmost caution and only after checking their feasibility and the procedure to be followed with Schneider Electric Telecontrol.

Finally, your master station's computer should, where possible, be exclusively reserved for this use, especially if the alarm and alert functions have been implemented; you are therefore strongly advised to use other computers for the company's office automation applications.

For data exchange needs between KERWIN and other software, it is preferable, for a multiple station configuration, to install and run this software on client stations rather than on the server station providing communication with local units. For a single station configuration, it is advisable to limit yourself to relatively simple applications on third-party software so as not to disrupt the execution of other current tasks.

The computer environment of KERWIN servers must be monitored particularly closely:

- Application of Microsoft security patches, in communication with Schneider Electric Telecontrol customer service department
- Regular saving and archiving of databases
- Maintenance of hard disks (checking and defragmentation)
- Up-to-date antivirus and firewall software, **making sure that the antivirus software's background task checking functions do not affect KERWIN's current directories.**
- For critical uses, the use of RAID disks and an inverter is VITAL

As KERWIN does not run in service mode, it is essential to configure the automatic launching of the PC and the KERWIN applications.

**3 PRESENTATION OF THE SOFTWARE**

Version 6.0 of the KERWIN software offers the following capacities:

<b>3.1 CAPACITIES OFFERED BY KERWIN</b>	
Number of operators	<ul style="list-style-type: none"> <li>• Unlimited</li> </ul>
Types of local unit managed	<ul style="list-style-type: none"> <li>• iRio / XLRIO / DivaXA / SLXA (Xflow)</li> <li>• W@de W315, W320E, W325</li> <li>• BRIO / W310</li> <li>• Trio / Flex / Hermes</li> <li>• TBC, Teleflo, TL04, VISECO</li> <li>• SOFREL (S10, S50, S500, S550)</li> <li>• DATAM</li> <li>• WIT (Force, Clip, E@sy)</li> <li>• PERAX</li> <li>• RADCOM dataloggers</li> </ul>
Maximum number of local units	<ul style="list-style-type: none"> <li>• Depends on commercial options</li> </ul>
Connection media	<ul style="list-style-type: none"> <li>• Telephone network (via modems)</li> <li>• GSM / GPRS</li> <li>• SMS</li> <li>• TCP/IP over Ethernet</li> <li>• Internet / Intranet</li> <li>• RS232 link (1 local unit per link)</li> <li>• RS485 home bus (via interface adapter)</li> <li>• Radio (via modem)</li> <li>• Dedicated line (via modem)</li> <li>• Motorola pager (United States and Canada)</li> </ul>
Possible number of links	<ul style="list-style-type: none"> <li>• Possible extension up to 255 links per multiple variable card</li> </ul>
Allocating of modems	<ul style="list-style-type: none"> <li>• Possibility of dedicating modems or allocating them all to incoming calls (receiving of alarms or Videotex server)</li> </ul>
Networking of KERWIN stations	<ul style="list-style-type: none"> <li>• Client – server solution</li> </ul>
Optional application modules available	<ul style="list-style-type: none"> <li>• Alarm/Event module</li> <li>• Alert module</li> <li>• Retrieval and Presentation module</li> <li>• Analysis/Management chart module</li> <li>• Synoptic module</li> </ul>

<b>3.2 KERWIN's BASIC FUNCTIONALITIES</b>	
Protection devices	<ul style="list-style-type: none"> <li>• 30 fully configurable access levels</li> <li>• Operator names and passwords</li> <li>• An access level is allocated to each operator</li> <li>• Workgroups</li> <li>• Automatic returning to splash page (settable timeout)</li> </ul>
System checks	<ul style="list-style-type: none"> <li>• Operating errors</li> <li>• General information</li> </ul>
Communications	<ul style="list-style-type: none"> <li>• Calling of local units through an Internet Browser or through Minitel emulation</li> <li>• Uploading and downloading of local unit configurations</li> <li>• Retrieval of the variables' current values</li> <li>• Automatic self configuration of the KERWIN database (Schneider Electric Telecontrol local unit)</li> </ul>
Printer editing	<ul style="list-style-type: none"> <li>• All types of printer</li> <li>• On-the-fly printing module</li> <li>• Window shots</li> <li>• PDF document / email / FAX</li> </ul>
Link configuration	<ul style="list-style-type: none"> <li>• Modem links</li> <li>• Serial links</li> <li>• IP links</li> </ul>
Sector (Site group) configuration	<ul style="list-style-type: none"> <li>• Unlimited number</li> <li>• Label</li> </ul>
Local unit configuration	<ul style="list-style-type: none"> <li>• Varying capacity depending on commercial options</li> <li>• Automatic creation on receipt of alarms or cyclical calls</li> <li>• General information: name, address, type, etc.</li> <li>• Self configuration of the local unit in KERWIN</li> </ul>
Variable configuration	<ul style="list-style-type: none"> <li>• Automatic creation of variables transmitted in alarms</li> <li>• Otherwise manual inputting: label, type, n°, etc.</li> <li>• Self configuration of variables in KERWIN</li> </ul>
File configuration	<ul style="list-style-type: none"> <li>• Automatic creation of the files transmitted via SMS</li> <li>• Manual inputting: name, type, n°, etc.</li> <li>• Self configuration of files in KERWIN</li> </ul>
Local unit synoptics	<ul style="list-style-type: none"> <li>• Positioning of local units on various synoptics</li> <li>• Positioning of the various synoptics on the screen</li> <li>• Viewing of local units with fault status</li> <li>• Displaying of the number of current faults: overall, local unit by local unit and synoptic by synoptic</li> <li>• Direct access to the following functions:               <ol style="list-style-type: none"> <li>1. Local unit calling (browser)</li> <li>2. Viewing, acknowledging and sorting of alarms and events</li> <li>3. Configuring of the local unit's parameters</li> </ol> </li> <li>• Exploitable image formats: JPG, GIF, BMP</li> <li>• Creation of images by the client or by Schneider Electric Telecontrol on request.</li> <li>• Self-configuration by Kerwin of the synoptics (Kerwin recovers the synoptics set up in the local units of type XFlow)</li> </ul>

**3.3 KERWIN'S ALARM/EVENT MODULE**

Types of event managed	<ul style="list-style-type: none"> <li>• Local unit cyclical calls</li> <li>• Local unit alarms (all types)</li> <li>• System alarms (modem, COM, etc)</li> </ul>
Available functions	<ul style="list-style-type: none"> <li>• Monitoring of cyclical calls</li> <li>• Recording of faulty local units in the Log and alarm processing</li> <li>• Acknowledgement of events</li> <li>• On-the-fly printer editing</li> <li>• Warning through PC buzzer or sound file</li> <li>• Archiving in history files</li> <li>• Creating and updating of a "current fault" log</li> <li>• Calculation of alarm durations</li> <li>• Multiple criteria history Filters and Sorting</li> <li>• Exporting of the event file in text format, in its entirety or according to filter and sorting criteria</li> <li>• Printing of events</li> <li>• Event simulation for a selected variable</li> </ul>
Various	<ul style="list-style-type: none"> <li>• Time setting of local units on incoming / outgoing calls</li> <li>• Customization of event history presentation: choosing of data to be displayed, choosing of colors, etc.</li> </ul>

**3.4 KERWIN'S ALERT MODULE**

Types of medium available	<ul style="list-style-type: none"> <li>• Email</li> <li>• Fax</li> <li>• Mini-messages over GSM network, NETIZE, ORANGE</li> <li>• TAP</li> <li>• Bip, Numeric and Text radio paging: ALPHAPAGE, OPERATOR, KOBBY, TATOO, etc.</li> <li>• Remote monitoring PC using the PC TEXT 1 protocol</li> </ul>
Functions available	<ul style="list-style-type: none"> <li>• Destination configuration</li> <li>• Procedure configuration: combinations of recipients and distribution mode.</li> <li>• Alert program configuration: allocating of procedures and selecting of the events concerned for each alert period</li> <li>• Parametrable acknowledgement function: on KERWIN remotely through Web (Kerweb module).</li> <li>• Storing of the alert procedure process flows</li> </ul>

**3.5 KERWIN'S RETRIEVAL MODULE**

Types of retrieval managed	<ul style="list-style-type: none"> <li>• TBC measurement files: Detailed and Summary</li> <li>• iRio / XLRIO / DivaXA / SLXA / Teleflo / Phenix / Hermes / Trio measurement files</li> <li>• Event files</li> <li>• Configuration files</li> <li>• Analysis files</li> <li>• ASCII files</li> <li>• SOFREL histories and analyses</li> <li>• WIT trace files</li> </ul>
Functions available	<ul style="list-style-type: none"> <li>• Manual transferring, local unit by local unit</li> <li>• Periodic automatic transferring or transferring on receipt of events</li> <li>• Programmable periodic transfer parameters for each file local unit by local unit: Date and frequency, Variables to be retrieved, File name, etc.</li> <li>• Call failure monitoring (tolerance and number of attempts) and recording of local units with call fault status in the Log</li> <li>• Exporting of the measurement and event files transferred (text format)</li> </ul>
Various	<ul style="list-style-type: none"> <li>• Presentation of the data transferred in the form of graphs and charts (see Presentation Module)</li> </ul>

**3.6 KERWIN'S PRESENTATION MODULE**

Types of representation	<ul style="list-style-type: none"> <li>• Graphs: curves showing development over time</li> <li>• Tables</li> </ul>
Exploitable data	<ul style="list-style-type: none"> <li>• Measurement histories (cf. Retrieval Module)</li> </ul>
Functions available	<ul style="list-style-type: none"> <li>• Local unit by local unit</li> <li>• File by file</li> <li>• Choosing of the variables to be represented</li> <li>• Choosing of the plotting period</li> <li>• Zooms on graphs</li> <li>• Adding of legends</li> <li>• Presentation of curves in zones</li> <li>• Graphic representation of logic variables and events</li> <li>• Copying / pasting of graphs in BMP, WMF and JPEG format</li> </ul>

**3.7 KERWIN'S SYNOPTIC MODULE**

Functionalities	<ul style="list-style-type: none"> <li>• Graphic representations of the remotely managed sites (buildings, equipment, sensors, etc)</li> <li>• Parametering and animation of several local units on the same synoptic</li> <li>• Possible concatenating of synoptics (switching function)</li> <li>• Off-line, displaying of last known statuses (statuses, alarms, measurements, etc)</li> <li>• On-line, animation through the refreshing of values and possibility of remote controls and remote management</li> </ul>
Creating of synoptics	<ul style="list-style-type: none"> <li>• Editor built into KERWIN allowing each synoptic to be created from previously drawn (e.g. using PaintBrush) Bitmap images: background images and other objects to be superimposed</li> <li>• Free and easy positioning of the synoptic's various static and dynamic objects</li> </ul>
Various	<ul style="list-style-type: none"> <li>• Exploitable image formats: JPG, GIF and BMP</li> <li>• Creating of images by the customer or by Schneider Electric Telecontrol on request</li> </ul>
Self-configuration	<ul style="list-style-type: none"> <li>• Kerwin recovers the synoptics set up in the local units of type iRio / XLRIO / DivaXA / SLXA (Xflow)</li> </ul>

**3.8 WEB MODULE OF KERWIN (KERWEB)**

Features	<ul style="list-style-type: none"> <li>• Access to all data from a web browser.</li> <li>• Access to all operating functions</li> <li>• Access to most parametering functions (except for creating dashboard and synoptic)</li> <li>• Simplified access is available for browsing from a PDA or Smartphone</li> </ul>
Pre-requisite	<ul style="list-style-type: none"> <li>• The Kerwin server must be accessible from a network (Ethernet, ADSL, GPRS, ...)</li> </ul>
For more information	<ul style="list-style-type: none"> <li>• Consult the Kerweb user manual.</li> </ul>

<b>3.9 DATA EXCHANGE MODULE WITH APPLICATION</b>	
Features	Data transfer between Kerwin and a third party application (business application, IT, SCADA)
OPC Servers	<ul style="list-style-type: none"> <li>• OPC DA server for reading instantaneous values of variables</li> <li>• OPC HDA Server for reading historical measures stored by Kerwin</li> </ul>
XML Connector	Third-party software may send XML requests to : <ul style="list-style-type: none"> <li>• Collect historical measures, events and alarms</li> <li>• Send operating actions (start a communication with a site, etc.)</li> <li>• Send parametering actions (add a site, etc.)</li> </ul>
Connector « Exports measures files »	A third-party software reads files from a dedicated directory KERWIN exports one or more text files containing measures into this dedicated directory (ability to configure the structure of the file)
Connector "Action file"	This connector allows third-party software to insert data into Kerwin. Third-party software put a file into a dedicated directory This file allows the third-party software to : <ul style="list-style-type: none"> <li>• Add measures (historized) in KERWIN</li> <li>• Add alarm / event in KERWIN</li> <li>• Set the value of a variable in KERWIN (with date)</li> <li>• Acknowledge alarms / events</li> </ul> Action files are text files with a structured format (Keywords, separators, etc.) Kerwin scans the dedicated directory and executes the files it finds inside.

## **4 INSTALLATION**

### **4.1 PRE-REQUISITES**

KERWIN requires the following minimum configuration to operate correctly:

- Windows Server 2003 SP1 (or later version), Windows 7, Windows Server 2008, Windows Server 2008 R2, Windows 8, Windows Server 2012 and Windows Server 2012 R2.
- Internet Explorer 8 browser (or later version)
- Microsoft PowerShell must be installed
- 3 Go MB of memory.
- Microsoft SQL Server 2008 R2 Express (limited to 10 Go of data) (free license)
- A Microsoft SQL Server license (SQL Sever 2008 or 2008 R2 or 2012) is required for application needing a big amount of data for measures or events. If SQL Server is running on the same machine as KERWIN, a server license is required for the OS. For installation of the above, at least 4 Go of memory are required, as well as a last generation processor.
- Hard disk drive of 250 Go
- CXR AJ-2885 modems are advised
- Any PC hibernation utilities must be disabled
- For the Web server, Microsoft Information Server is advised (it must be installed from the Windows CD)

### **4.2 IMPLEMENTATION**

KERWIN is very simple to install and update using the DVD sent by Schneider Electric Telecontrol:

Check that all the other applications have been closed

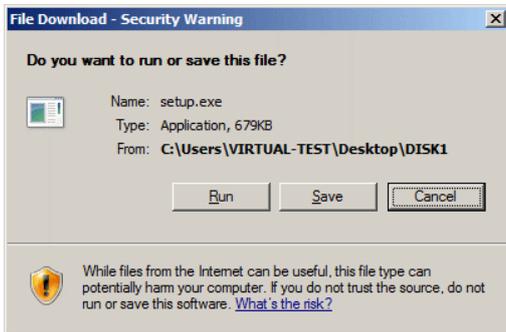
Insert the DVD in the drive

Installation will start automatically

Then just follow the instructions displayed on the screen.

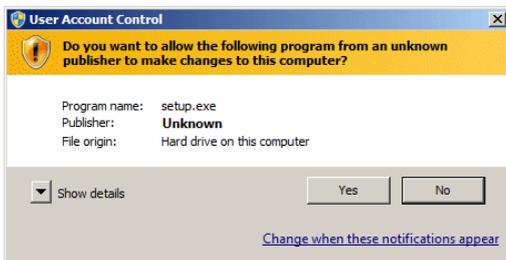
**4.2.1 Standard installation**

You must:



After the click, if the browser is set to carry out security checks; a first window will display.

Start the setup program by clicking on the [Run] button



Validate the second window by pressing the button [Yes]

Then just follow the instructions on the screen.



Install pre-requisites drivers.

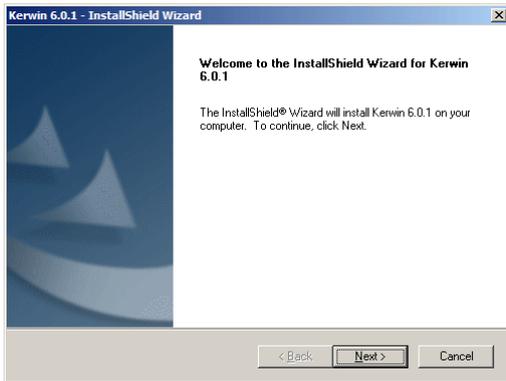
Function of your Windows, some pre-requisites drivers must be installed. They are listed in this dialog box and are automatically installed.

Start the installation by doing a click on [Install] button.



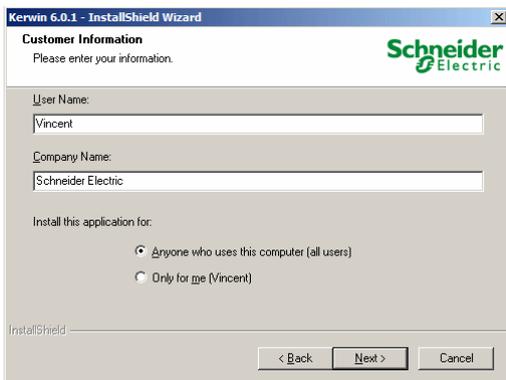
Select the installation language  
Select the language in the list

Validate your choice by clicking on [OK]



The installation program show the welcome screen

Start the installation by doing a click on [Next >] button

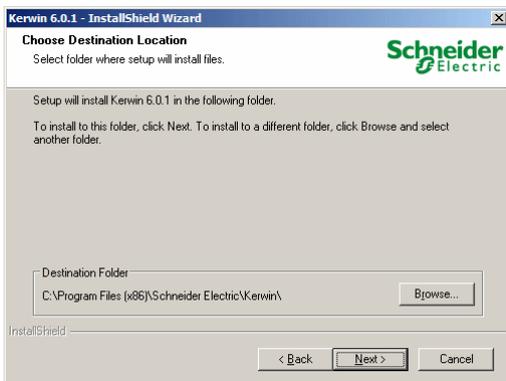


Client information screen

You have to fill your user name and company name.

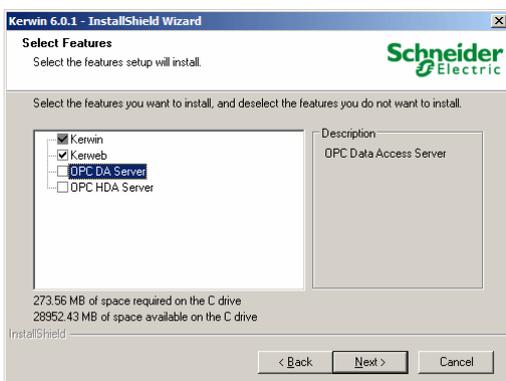
Select the option : Anyone who uses this computer

Validate your choice by clicking on [Next >]



Select the KERWIN installation directory

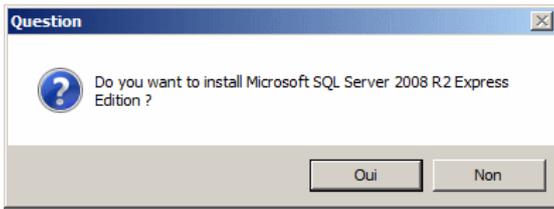
Validate your choice by clicking on [Next >] button



Choose the features to install

Kerweb, OPC DA Server and OPC HDA Server will be usable only if the options are configured the protection key.

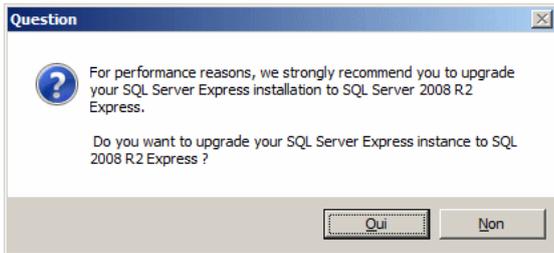
Validate your choice by clicking on [Next >] button



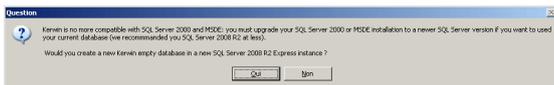
Installation of SQL Server 2008 R2 Express.

If the installation program has not detected a MS SQL Server license on the PC, it proposes you to install SQL Server 2008 R2 Express.

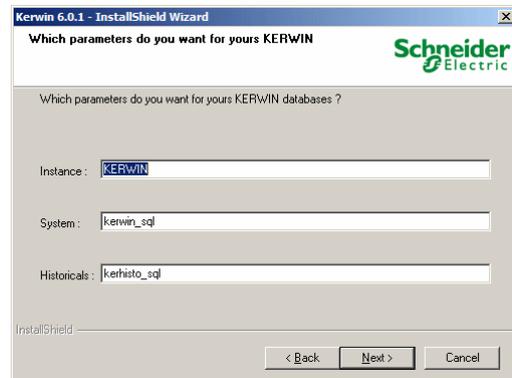
This choice is mandatory if you have no SQL Server license. You can also refuse if you have done your own SQL installation on a remote server. In that case you will have to manually configure the ODBC link and upgrade the database.



When installing Kerwin on a computer running Microsoft SQL Server 2005 Express or Microsoft SQL Server 2008 Express, an automatic update of your system to Microsoft SQL Server 2008 R2 Express will be offered during installation. For performance reasons, it is strongly recommended to accept this update.



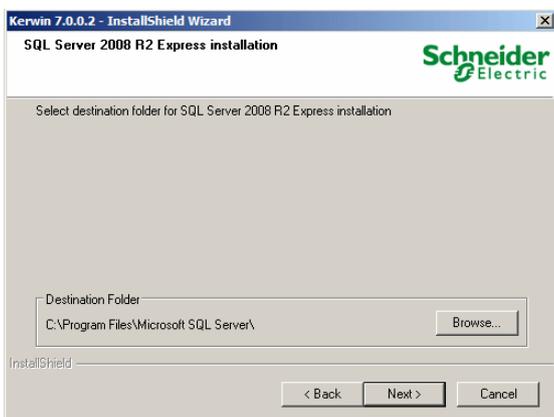
Kerwin is no longer compatible with Microsoft SQL Server 2000 and Microsoft SQL Server 2000 Express (MSDE). When installing Kerwin on a computer running Microsoft SQL Server 2000 or Microsoft SQL Server 2000 Express (MSDE) an automatic update of your system and your data can not be performed. A new installation with Microsoft SQL Server 2008 R2 Express will then prompt during installation.



You must choose the name of the SQL instance inside which the databases are going to be managed (Instance field). Then the name of the system database and the name of the historical database to store Kerwin data.

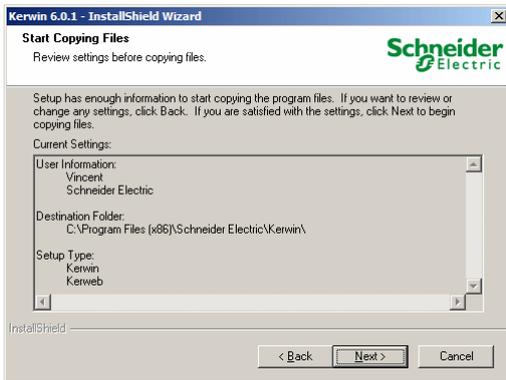
It is advised to keep the values that are proposed by default

Validate your choice by clicking on [Next >] button



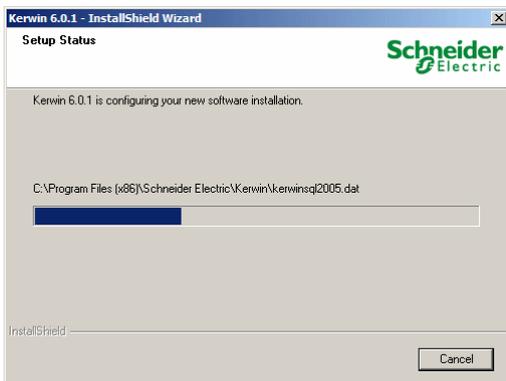
Select the SQL Server installation directory

Validate your choice by clicking on [Next >] button

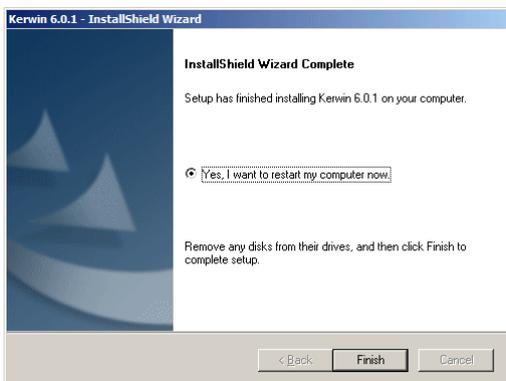


Summary of your choice for KERWIN installation

To continue the installation process, click on [Next >] button

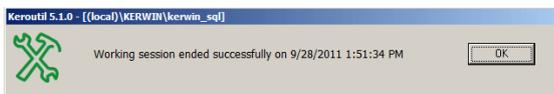


The installation of the files is in progress...

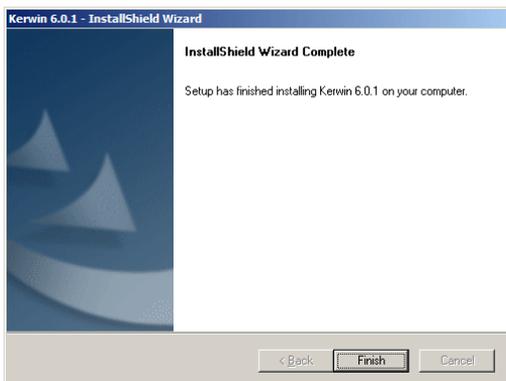


End of the first part of the installation. Restarting is mandatory

To restart your computer click on [Finish] button.



After the reboot, the installation program will continue by upgrading the databases.



End of the KERWIN installation.

**Note: Changes to the PC environment**

Installing KERWIN creates a “Schneider Electric” program group (for details see “Programs group” further on in this section).

**Note updating a previous installation**

The installation program acts differently when is updating a previous version of KERWIN.

#### **4.2.2 Location of the configuration files since Kerwin V6**

In order to allow compatibility with Microsoft Windows Server 2008 R2 and Microsoft Windows Seven operating system, it has been needed to change the location of Kerwin configuration files..

Since Kerwin version 6, all files the user can change are installed in a new directory depending on the operating system.

##### **For Windows XP, Windows Server 2003 and Windows Server 2008:**

\Document and Settings\All Users\Application Data\Schneider Electric\Telecontrol\

##### **For Windows Seven and Windows Server 2008 R2, Windows 8, Windows Server 2012 (since Kerwin v7) :**

\ProgramData\Schneider Electric\Telecontrol\

In this directory, two sub-directories are present: \Config Files and \Debug Files.

##### **\Config Files**

All the configuration files are installed into the \Config Files sub-directory:

kerwin32.cfg - kercom.ini - kerman32.ini - execute.cfg - kerodbc.ini (former odbc.ini) - kermin.ini - lerneconf.ini - kerftp.ini - dbg32.ini

During installation, if a previous version of Kerwin is upgraded; all the configuration files that are located into Windows directory or into Kerwin directory are moved into the \Config Files sub-directory.

##### **\Debug Files**

All the debug files are created into the \Debug Files sub-directory.

The location of the debug files could still be changed in the configuration files (kercom.ini, kerman32.ini ...)

During installation, if a previous version of Kerwin is upgraded; the location of the debug files is not changed.

### 4.2.3 Adapting the configuration file

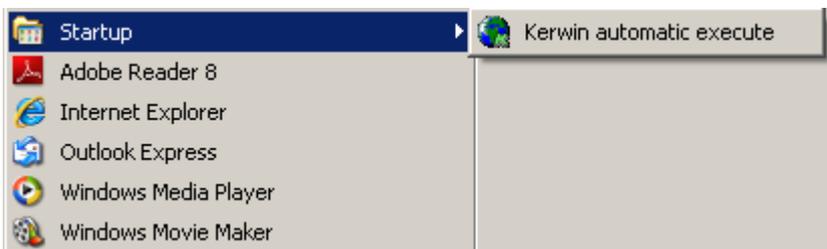
Once this stage has been completed, you may need to modify the configuration file KERWIN32.cfg, if the configuration of your Master Station differs from the standard configuration and if this configuration has not been previously adapted by Schneider Electric Telecontrol.

To make the necessary modifications to the configuration file KERWIN32.cfg, which is in text format, you must run the “KERWIN Configuration” application in the “Schneider Electric / KERWIN32 Tools” program group; this application opens the file in question together with the “Notepad” text editor so that you can make the necessary changes.

Refer to the section [Parametering / Configuring the Data server](#) for a basic configuration.

Refer to appendix A of this manual, which describes the content of this file. If necessary, contact Schneider Electric Telecontrol customer service department.

### 4.2.4 Automatic launching of KERWIN



To automatically launch KERWIN on the starting of your Windows session, you must place the application “Kerwin automatic execute” in “Startup” folder.

In addition, if you want to start KERWIN at the same time as the PC, you must configure a Windows User/Password in the registry, as KERWIN cannot run as a service:

1. Run REGEDIT.EXE and locate the following registry key:  
     HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows  
     NT\CurrentVersion\Winlogon
2. Enter your domain and user names and your password using the values that you would usually type when opening a Windows session. You must enter the following values:  
     DefaultDomainName  
     DefaultUserName  
     DefaultPassword
3. From the **Edit** menu, select **New / String Value**. Type the name “AutoAdminLogon”. Enter **1** as the value and confirm the modification
4. Close REGEDIT.
5. Exit Windows and shut down your computer.
6. Restart your computer. Windows should automatically open your session.

**NOTE:** The DefaultPassword value may not exist. If this is the case, select **New / String Value** from the **Edit** menu. Type the name “DefaultPassword”. Enter your password as the value and confirm the modification.

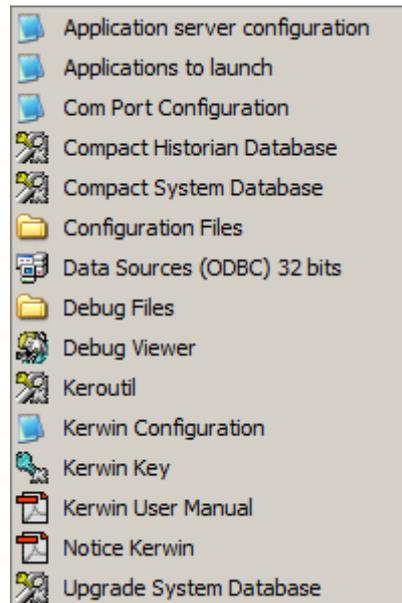
You can also use the autologon utility (<http://www.sysinternals.com/ntw2k/source/misc.shtml>) to write these keys without manually editing the registry.

#### 4.2.5 Program groups

KERWIN installation 2 program groups: Schneider Electric and Kerwin32 Tools

- **Schneider Electric** contains all the operational modules
- **KERWIN32 Tools** contains all the KERWIN configuration files and applications (parametering of communication ports, operating options, etc) and database maintenance tools (repairing and compaction) as well as the ODBC administrator that allows the configuration of the SQL Server databases used by KERWIN.

#### KERWIN32 Tools



**4.3 DEFAULT CONFIGURATION**

When KERWIN is first installed, a default configuration is defined. Its properties are the following:

Characteristic	Configuration
User	"napac" without password. This user has full rights (administrator)
Database	Microsoft SQL Server 2005 Express
Communication ports	COM1(local), COM2(modem), COM3(modem), COM4(modem), COM253(Net), COM254(Net)
Outgoing calls	COM1, COM2, COM254
Incoming calls	COM1, COM253
Resetting of the incoming communication ports	After 120 minutes without a call
Maximum number of current events	8000
Cleaning of events	Every day at midnight
Management of event duplications	No (duplications are permitted)
Generating of an event on a call from an unknown local unit	No
Generating of an event on the deactivation of a local unit	No
Generating of an event on the deactivation of a variable	No
Generating of an event on acknowledgement	No
Local acknowledgement (HMI, Web ) acknowledges all recipients	Yes
Receiving of events by email	No
Management of time zones	No
Management of zones	No
Keep incoming call communication to read datas.	Yes
Management of communication backups	No
Use of the variable's name during self configuration	Yes
Updating of the variable's name during self configuration	Yes
Email address	None
POP3 server	Not configured
SMTP server	Not configured

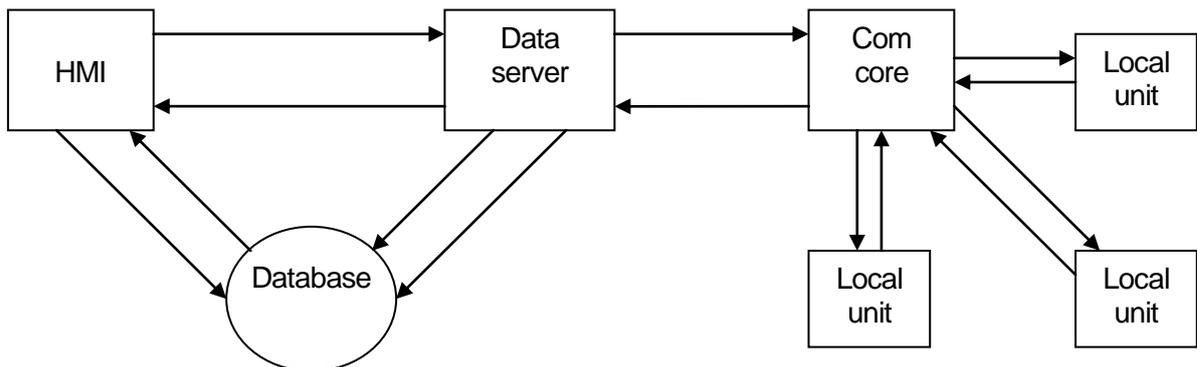
## 5 GETTING STARTED, RECOMMENDATIONS

### 5.1 KERWIN SOFTWARE APPLICATIONS

The KERWIN software consists of 3 applications that run concurrently. If one of these applications is not launched, the software can no longer operate normally. The automatic launching of KERWIN or the launching of the man-machine interface always starts these three applications (except in client mode).

These three applications are:

- The communication core
- The data server
- The man-machine interface (HMI)



#### 5.1.1 The communication core

The communication core is a 'black box' that facilitates communication with the local units using various communication protocols. It is controlled by the data server and makes calls and receives alarms. It can be configured using the file KERCOM.INI

The communication core has no interface.

The  icon in Windows' toolbar indicates that it is active.

#### 5.1.2 The data server

The data server carries out all the data processing tasks. It communicates with the local units via the communication core. It records the data received in the database. It can be configured using the file KERWIN32.CFG

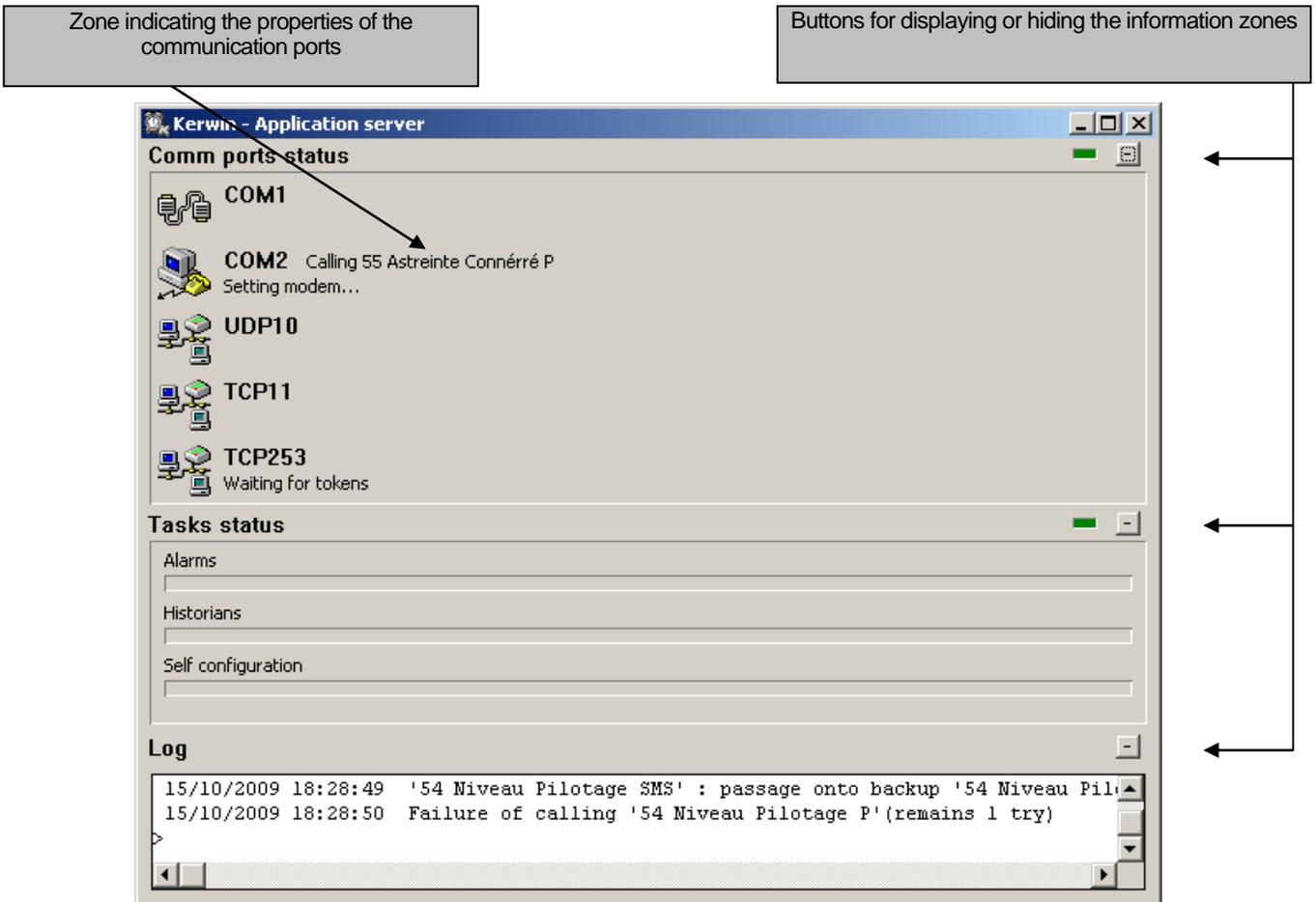
Actions are requested via the man-machine interface (HMI) and are then executed by the data server.

The mains actions are:

- Receiving alarms
- Transferring measurement files
- Calling call routes
- Receiving incoming calls for viewing (minitel, voice)
- Database maintenance and saving
- Sending faxes and e-mails

The  icon in Windows' toolbar indicates that it is active.

The data server has the following interface:



The **Port status** zone displays the type and status of the communication ports used. An icon shows the port type: local, modem, network, voice. The message displayed to the right of each icon reports on the port's activity.



COM1 is being used as a local link. The port is on call standby

COM2 is being used with a MODEM. This port is calling a site.

UDP70 is being used as an UDP port. This port is on call standby

TCP11 is being used as a TCP port. This port is on call standby

TCP253 is being used as a TCP port. This port is on alarm receipt standby

The **Task Status** zone indicates the state of progress of the task indicated through progress bars.

- **Events** Indicates the state of progress of alarm insertion.
- **Measurements** At the end of the file transfer, this progress bar indicates the state of progress of the history files' insertion in the database.
- **Self configuration** On the automatic configuring of the local units, this indicator displays the state of progress of the creation of the local units' variables.

The **On-the-fly** zone displays all the communications actions and all the processing operations in the databases carried out by the data server. This information is also saved on the hard disk in the folder \KERWIN32\LOG\ (parametrable).

This folder contains files whose names 'LOGYYDDD.LOG' consist of the year (YY) followed by the day of the year (DDD). There is one file per day. These files are not deleted automatically by KERWIN. Files that are too old must therefore be regularly deleted.

### **5.1.3 The Human-Machine Interface**

This is the application that is used to parameter and to operate the KERWIN software.

It allows a user to interact with the software.

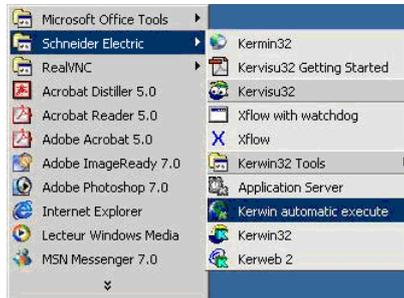
The interface will be explained further on in this section.

## 5.2 LAUNCHING AND SHUTTING DOWN THE KERWIN SOFTWARE

### 5.2.1 Launching

To manually launch KERWIN, click on the Start button, then select the “Automatic launching of KERWIN” application from the Schneider Electric program group.

This application is responsible for launching all KERWIN’s executable modules.



While KERWIN is loading, a welcome screen (customizable) appears:



And when the application has finished loading, the connection screen appears:

You will need to enter your KERWIN username and your password (if necessary). These will determine your access rights to the software’s various functionalities.



### 5.2.2 Returning to the connection screen

To return to the connection screen at the end of a KERWIN session, select the item “Return to splash page” from the “Maintenance” menu. You can also click on the  button in the toolbar.

For security reasons, KERWIN also incorporates an automatic return to the connection screen procedure. This procedure is launched if the operator has not been present, at the keyboard or on the mouse, for a certain length of time. The value of this time can be set by selecting “Options” item from the “Maintenance > System” menu.

### 5.2.3 Shutting down

You can shut down the KERWIN software either by clicking on the application closing button  in the top right of the title bar, or by closing your Windows session. You can also return to the connection screen and select the Exit button.

**Note:** exiting the KERWIN software (unless KERWIN is configured to operate in client mode) stops all the tasks (alarm receipt, alert, transferring of measurement histories, etc).

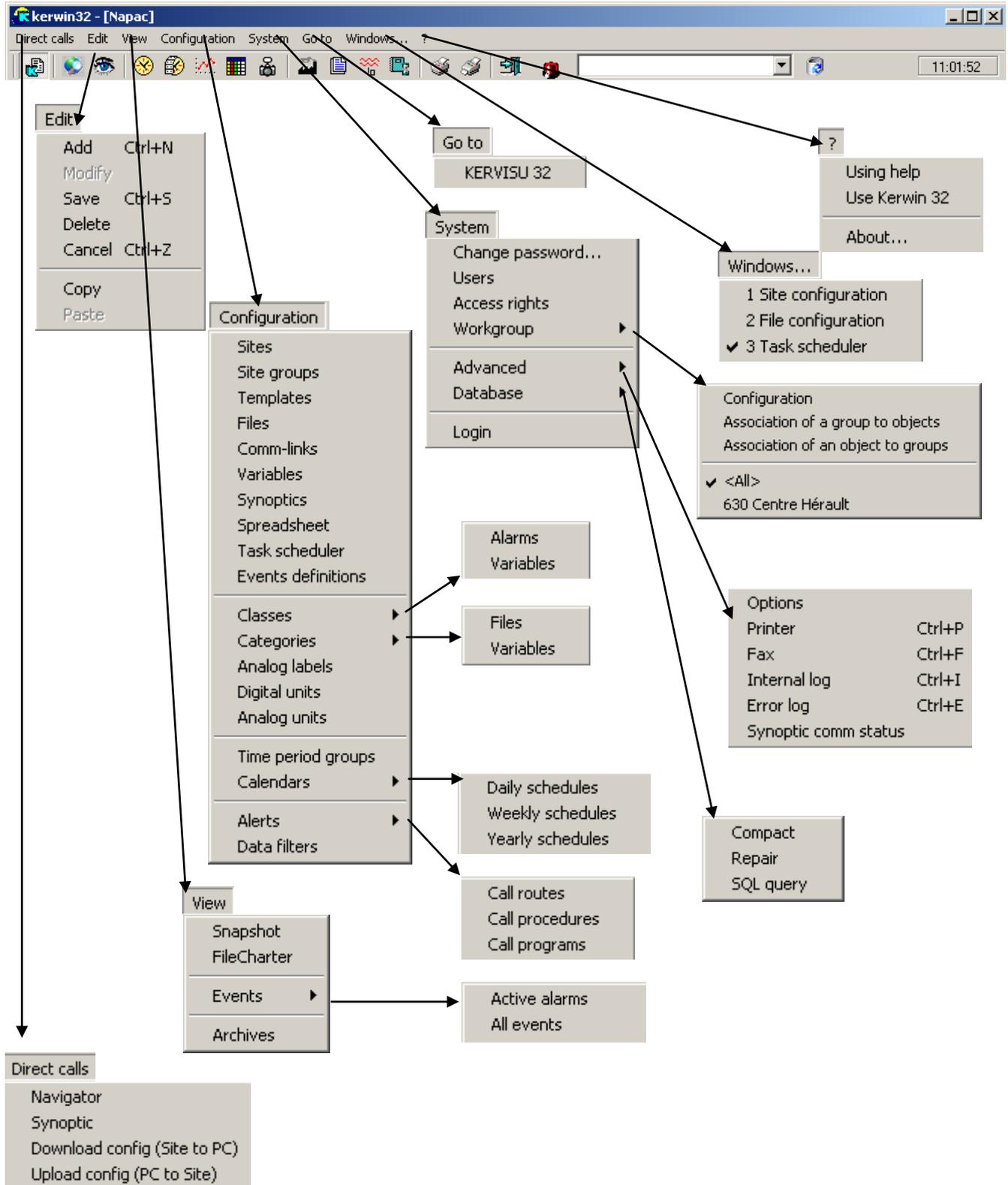
### **5.3 *PASSWORDS AND ACCESS LEVELS***

Access to the software's various functions is protected by passwords and access levels assigned to each user. The password associated with the user's name allows this user to be identified at the start of a session; the access level assigned to this user out of the 30 levels available determines the actions that he is permitted to perform: complete or partial viewing of data, authorized or not authorized to acknowledge alarms, authorized or not authorized to modify the configuration, etc.

The 30 access levels available and the passwords can be freely configured from the Maintenance menu.

**5.4 PRESENTATION OF THE MENUS AND THE TOOLBAR**

The software's various functions are accessed from a menu displayed horizontally across the screen. Some of these functions can be accessed more directly through the icons in the toolbar below the menu:



**5.4.1 Presentation of the menus**

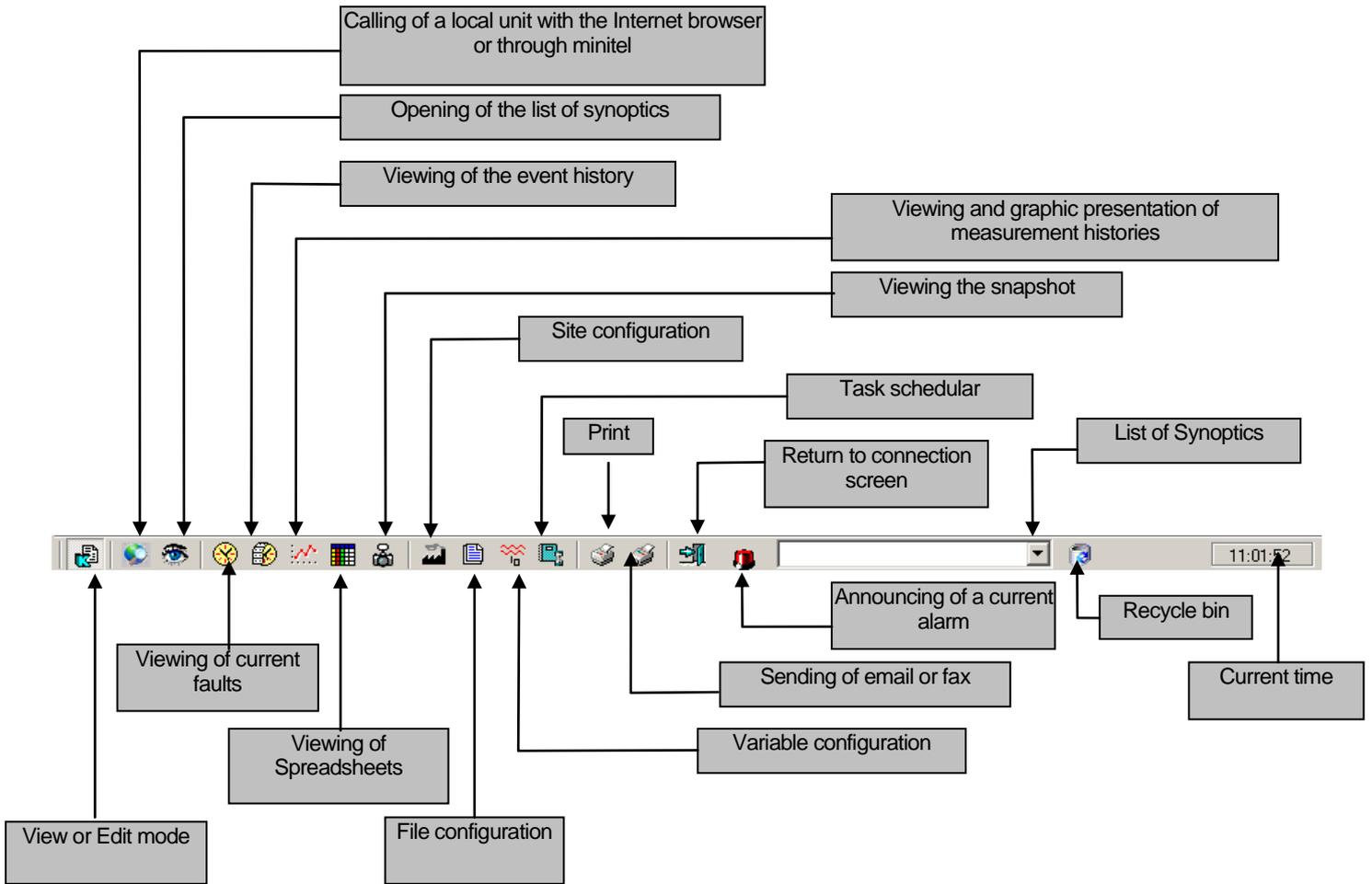
The tables that follow present the menu's various functions and the corresponding icons on the toolbar.

<b>KERWIN MENUS</b>					
<b>Menu</b>	<b>Item</b>	<b>Icon</b>	<b>Module</b>	<b>Comments</b>	
<b>Direct calls</b>	Navigator			Calling of a local unit with the Internet browser or through minitel (emulation)	
	Synoptics			Calling of a local unit from a synoptic and synoptic view ing and configuration	
	Download config Site→PC			Downloading of a local unit's configuration and saving onto the PC	
	Upload config PC→Site			Uploading into a local unit of a configuration stored on the PC	
<b>Edit</b>	Add			Adding a new element	
	Depends on the context	Modify		Modifying an element	
		Save			Saving a modification
		Delete			Deleting an element
		Cancel			Undoing the modifications to an element
		Copy			Copying one or several elements
		Paste			Pasting one or several elements
<b>View</b>	Snapshot			Viewing KERWIN's log	
	FileCharter		Retrieval Presentation	<ul style="list-style-type: none"> <li>• Viewing the local units' measurement histories:                             <ul style="list-style-type: none"> <li>♦ Graphs</li> <li>♦ Tables</li> </ul> </li> <li>• Exporting these histories</li> </ul>	
	Events > Active alarms		Alarms	Viewing and acknowledging current faults	
	Events > All events		Alarms	Viewing, acknowledging and sorting the alarm and event history	
	Events > list of cusomized events			Viewing the databases archived	

KERWIN MENUS				
Menu	Item	Icon	Module	Comments
Configuration	Sites			Configuring the local units' parameters
	Site groups			Configuring the sectors' parameters
	Templates			Configuring the models
	Files		Retrieval	Configuring automatic retrieval parameters
	Comm-links			Configuring links to communicate with local units and recipients (fax, email, phone, etc)
	Variables			Configuring the parameters (variables) of the local units' variables
	Synoptics		Synoptics	Declaring Synoptics
	Spreadsheets		Analyses	Declaring Spreadsheets
	Task schedulers			Configuring the sequencer
	Events definitions			Configuring events definitions
	Classes > Alarms Variables			Defining Event classes and Variable classes
	Categories > Files Variables			Defining File types and Variable types
	Digital units			Declaring the logical labels associated with the logical Variables
	Analog labels			Declaring the analog labels associated with the analog and metering Variables
	Analog units			Declaring the physical units associated with the analog and metering Variables
	Time period group			Declaring the period group associated with alert duty and calendars
	Calendars > Daily schedule		Alert	Configuring standard days by dividing up periods
	Calendars > Weekly schedule		Alert	Configuring standard weeks by associating standard days
	Calendar > Yearly schedule		Alert	Configuring yearly programs by allocating standard days or weeks
	Alerts > Call routes		Alert	Configuring alert recipients
	Alerts > Call procedures		Alert	Configuring alert procedures by combining Directions
	Alert > Call programs		Alert	Configuring alert programs: Allocating yearly programs and alert procedures to the different types of alarm.
	Data Filter		Analysis	Configuring a program allowing the calculating of the distribution according to a time program

<b>KERWIN MENUS</b>				
<b>Menu</b>	<b>Item</b>	<b>Icon</b>	<b>Module</b>	<b>Comments</b>
<b>System</b>	Change password			Free choosing of password for each user
	Users			Configuring KERWIN's users
	Access rights			Configuring access levels
	Workgroups > Configuration			Configuring workgroups
	Workgroups >			Selecting a specific work group (for administrators only)
	Advanced > Options			Configuring options: <ul style="list-style-type: none"> <li>• Return to connection screen time</li> <li>• Recording of configuration on exiting</li> <li>• Maximum number of windows open</li> <li>• Name of the application, language</li> <li>• Manual exporting format</li> </ul>
	Advanced > Printer			Selecting the printer and printing
	Advanced > Fax			Selecting a recipient and sending a fax or email.
	Advanced > Internal log			Displaying "system" information
	Advanced > Errors log			Displaying troubleshooting information relating to operating problems
	Advanced > Synoptic comm. status		Synoptic	Displaying connection information for synoptics
	Database > SQL query			Sending direct SQL queries to manipulate the database
	Login			Closing the current session and returning to the connection screen
<b>Go to</b>	Kervisu 32, Excel ...			Direct access to third-party software
<b>Windows ...</b>	List of windows open			<ul style="list-style-type: none"> <li>• Viewing the list of windows open</li> <li>• Selecting the window to be displayed in the foreground</li> </ul>
<b>?</b>				Information about KERWIN: version, serial n°, etc.

**5.4.2 Presentation of the toolbar**



**NOTE**

 A specific icon representing a siren appears in the toolbar when there are current faults, in other words when a situation hasn't yet returned to normal. Clicking on this icon will turn off the PC's sound, if this function was authorized on configuration

### 5.4.3 Edit and viewing modes

The configuration button is managed as a switch for moving from viewing mode  to edit mode  and vice versa.

**Note:** Edit and viewing modes

To make any changes to KERWIN's parameters, you must first switch to Edit mode. This will not stop KERWIN's operation; all the automatic tasks and viewing and interrogation functions, etc, will remain available.

Return to viewing mode after the modifications have been made.

## 5.5 ACCESS TO THE SOFTWARE'S FUNCTIONS

KERWIN offer 3 means of accessing the software's functions:

- From the menu bar; in this case the access method is the following:
  - Select the menu with the mouse or through the <ALT> key followed by the underlined letter,
  - Next select the item in the sub-menu's window by clicking
- From the toolbar, by clicking in the icon corresponding to the function (limited to certain functions)
- From the synoptics, by clicking on the position of the local unit, then selecting the item in the floating menu displayed:
  - Interrogation in Browser mode (Internet or Minitel) of the local unit selected
  - Viewing, acknowledging and sorting of alarms and events
  - Viewing or configuring of the local unit's parameters
  - Downloading of the local unit's instantaneous values and files

**5.6 CONFIGURING AND COMMISSIONING PROCEDURE**

**5.6.1 Configuration check-list and order**

A configuration procedure is proposed below, which is mainly aimed at making the manipulations simpler to therefore limit the risk of error. For example, this procedure provides you with the site group's names on the parametering of local units:

<b>Step</b>	<b>Parameters</b>	<b>Access</b>	<b>Module</b>
1	Communication ports	KERCOM.INI and KERWIN32.CFG	Database
2	Users	System	Database
3	Access rights	System	Database
4	Workgroup	System	Database
5	Links	Configuration	Database
6	Site groups	Configuration	Database
7	Classes, Labels, Units	Configuration	Database
8	Sites and Variables	Configuration	Database
9	Files	Configuration	Retrieval
10	File charter	View	Retrieval
11	Spreadsheet	View	Management charts
12	Event	View	Alarm
13	Calendars	Configuration	Alert
14	Call programmes	Configuration	Alert
15	Synoptics	Parametering and Viewing	Synoptics

**5.6.2 Checks and tests before commissioning**

When the master station has been configured, the following tests must be carried out (depending on the modules used):

- Peripheral tests: printers, streamer, inverter, etc.
- Modem tests: incoming (alarms, videotex server) and outgoing (Minitel, Internet, file retrieval) calls
- Checking and testing of alerts numbers
- Checking and testing of alarm procedures
- Checking and testing of the local units' numbers: these tests may be carried out, however, when the local units are configured

## 5.7 MANAGING THE RTUs' CONFIGURATIONS

### 5.7.1 Self configuration

KERWIN allows partial self configuration of the Schneider Electric Telecontrol RTU.

This configuring is performed automatically on receipt of an alarm or cyclical call, or on the retrieval of a measurement or event history; thus on receipt of a first alarm from an undeclared local unit, KERWIN will automatically add the new unit, in particular recording its name and/or number and the properties of the alarm variable.

It is also possible to request a self configuration by calling the local unit, from its configuration window (see [Parametering / Sites](#)).

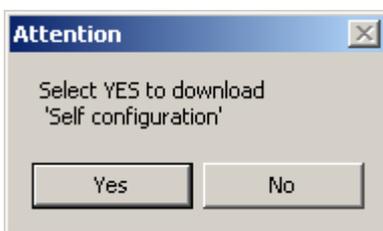
The parameters available for automatic configuration are:

- Parameters of the local unit: name, number (if required)
- Parameters of the local unit's variables: labels, types (logic input, analogue input, etc), the numbers of the variables within the type, units (for analogue inputs and meters) or On-Off, Normal-Fault status labels, etc (logic inputs)
- Units and status labels: these general KERWIN database elements being updated according to the properties of the local unit's variables.
- Parameters of the local unit's Files: Measurement, Event

This functionality therefore simplifies the task of configuring by the master station by avoiding the double inputting of information that is already available on the local units.

#### 5.7.1.1 Self configuration by calling the site

Open the site form, select your site and click on the button . When it is not possible the button is grey.



Confirm the call with a click on the [Yes] button. Then the Data Server calls the local unit for getting the configuration. After the call, KERWIN has put in its database the variables and the files of the local unit.

Self configuration by calling a site is possible for the following local units:

FLOWTEL, HERMES, TBC MUC5 / MUC9, PHENIX, iRIO, XLRIO, SLXA, DIVA XA, TELEFLO, TL04, WIT

### 5.7.1.2 Self configuration by analyze of a configuration file

Open the site form, select your site and click on the button . In the W@de case you have to select a binary configuration file that describes the configuration of the RTU. The file is analyzed and the configuration is injected the KERWIN database.



Self configuration by analyze of a configuration file is possible for the following local units:  
W@de: W315, W320E, W325

### 5.7.1.3 Self configuration by SMS reception

It is a specific mode for the BRIO / W310 local units. When theses local units send their first SMS, KERWIN creates automatically a Site with the attached variables and files. If new information arrives in the following SMS, new variables and files are added to the BRIO / W310 site configuration in the KERWIN database.

Self configuration by SMS reception is possible for the following units: BRIO, W310

### 5.7.1.4 Advanced self configuration

This functionality is similar to the self configuration, adding to it the possibility to select the actions to be performed. When it is available for a local unit, it replaces the normal self configuration feature.

Using the checkboxes, select the actions you want to perform, and then confirm by clicking the [OK] button.

After the transfer, the selected data have been automatically configured. The self configuration parameters are kept in memory.

The default actions (variables and files) match the behavior of the normal self configuration.

Advanced self configuration is possible for the following XFLOW units: iRIO, XLRIO, SLXA, DIVA XA

### 5.7.2 Downloading and uploading configurations

In the basic unit KERWIN incorporates a communication utility allowing the downloading and uploading of the local units' configurations.

Downloading corresponds to the saving of a configuration onto KERWIN's hard disk (or possibly another medium) through the retrieval of the local unit towards the PC; uploading is the reverse operation and allows the uploading of a configuration previously saved on the PC into the local unit's memory.

These functionalities are very useful for maintenance operations as they make it possible to reload a configuration very quickly on the replacing of faulty hardware so that it doesn't have to be manually input again.

They are also useful for managing groups of local units whose configurations are relatively repetitive; all that is needed is to define a basic configuration and follow the procedure below on the commissioning of a new local unit

- Uploading of the basic configuration into the local unit
- Manual modification of the configuration for adaptation to the specificities of the local unit (name, number, specific functions, etc)
- Retrieval of the local unit's final configuration for archiving.

**Attention:** This functionality depends on the type of the local unit.

## 6 OPERATING

### 6.1 SITE FORM

In view mode, the form of sites can be used to perform the following actions:

- Immediate reading of the instantaneous values of a local unit
- Immediate reading of all the local unit's files
- Uploading into the local unit of a configuration stored on the PC
- Downloading of the local unit's configuration and saving onto the PC

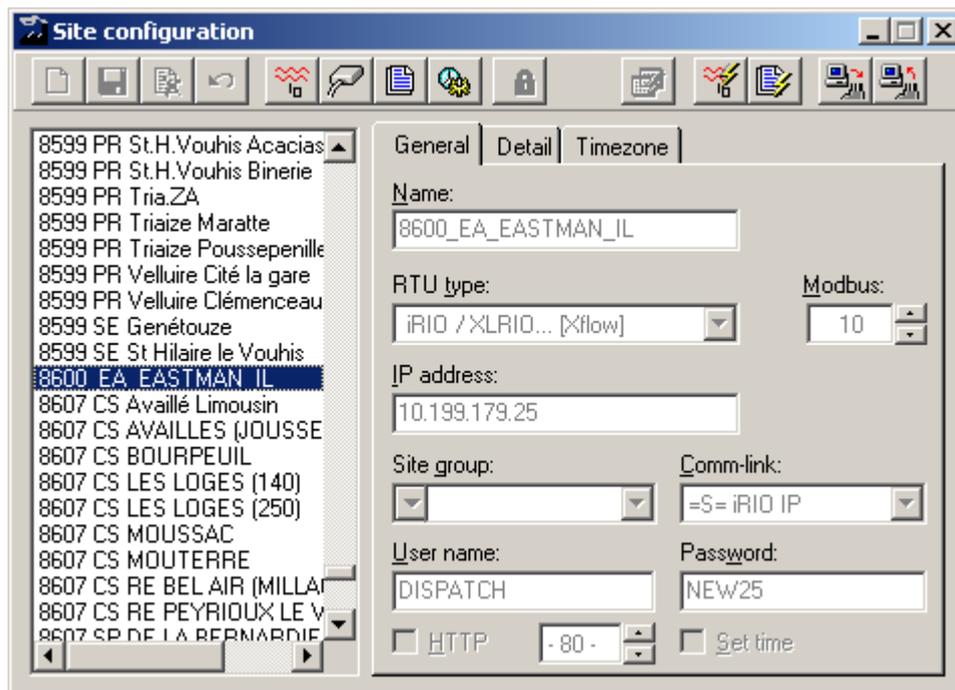


It also allows the opening of or switching to the following forms:

- Variable configuration
- Link configuration
- File configuration
- Definition of the events



The site form is displayed as below:

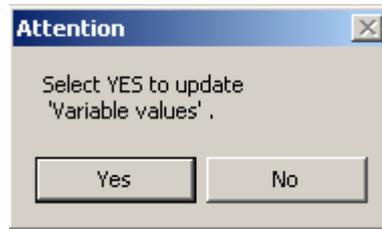


**Attention:** The information displayed depends on the type of local unit.

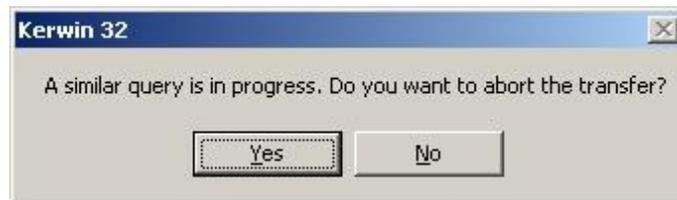
### 6.1.1 Immediate reading of the instantaneous values

When transfer is complete, KERWIN refreshes all the values of the selected site's variables.

To initiate the reading of the current value of the local unit's variables, just click on the  button. A confirmation box will appear:



If a reading action has already been initiated, the confirmation box will be different:

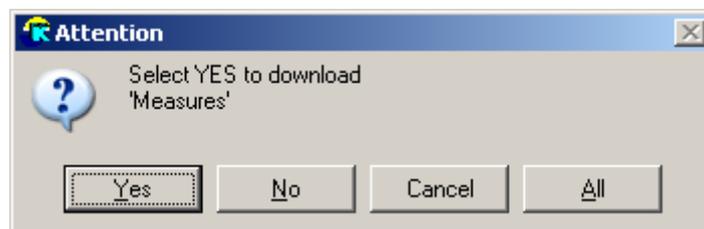


In this case the "Yes" button cancels the action initiated if this hasn't yet started

### 6.1.2 Immediate reading of the measurement and event files

When this request is made, KERWIN retrieves all the files (Detailed, Summary, Events, Analysis, Measurements, etc) for the site selected.

To initiate reading, just click on the  button. A confirmation box will appear:



"Yes" confirms the action proposed for the file in question and moves to the next file

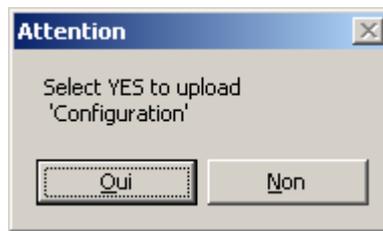
"No" rejects the action proposed for the file in question and moves to the next file

"Cancel" stops the confirmation request

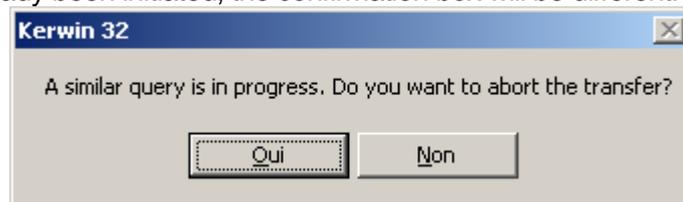
"All" confirms the action proposed for all the local unit's files

### 6.1.3 Immediate uploading of the configuration file into the RTU

To initiate this action, just click on the  button. A confirmation box will appear:



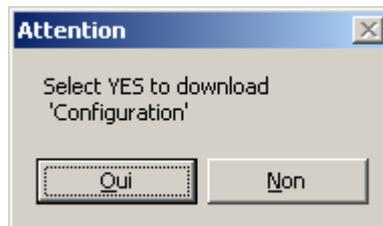
If a writing action has already been initiated, the confirmation box will be different:



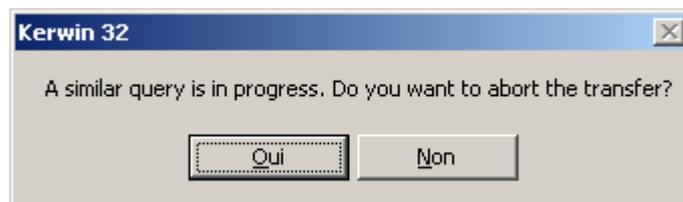
In this case the "Yes" button cancels the action initiated if this hasn't yet started

### 6.1.4 Immediate downloading of the RTU's configuration file

To initiate this action, just click on the  button. A confirmation box will appear:



If this action is already in progress, the confirmation box will be different:



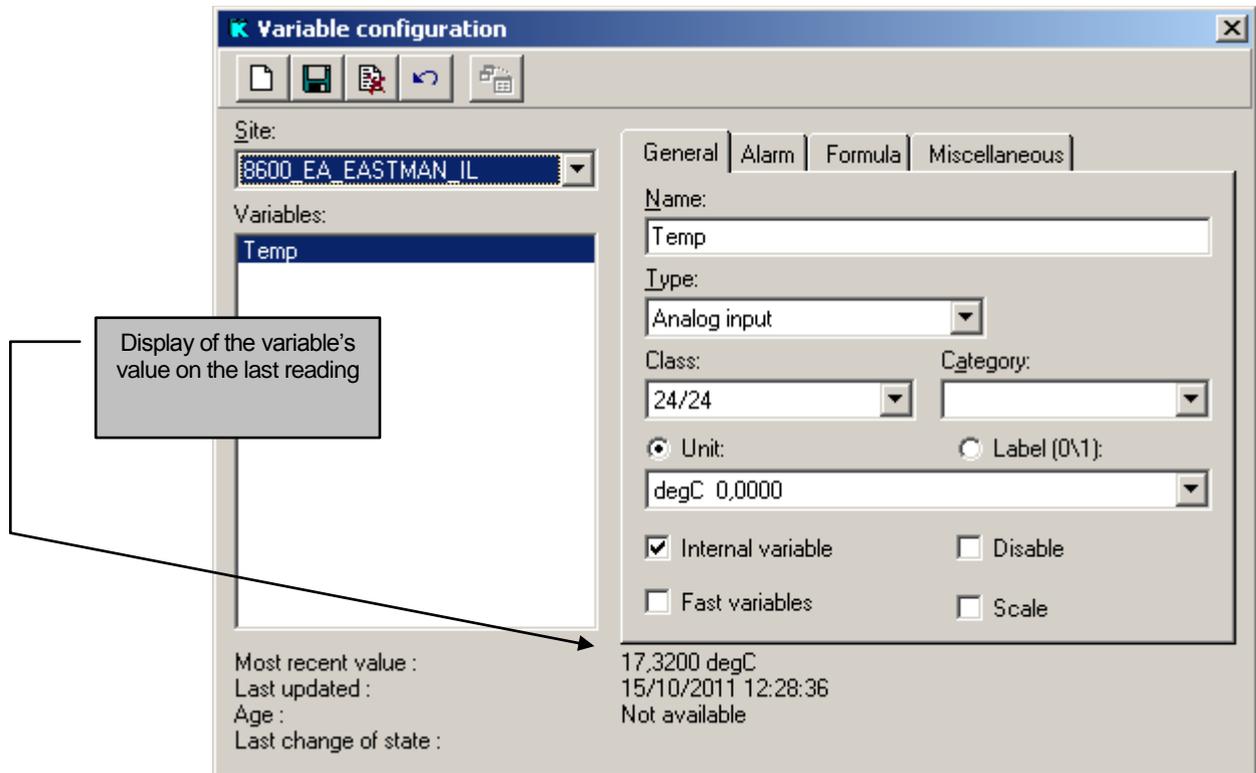
In this case the "Yes" button cancels the action initiated if this hasn't yet started

## 6.2 VARIABLE FORM

In view mode, the variable form can be used to perform the following actions:

- Simulation of a fault on the variable 

In edit mode, the variable form looks like this:



The information displayed depends on the type of variable and local unit.

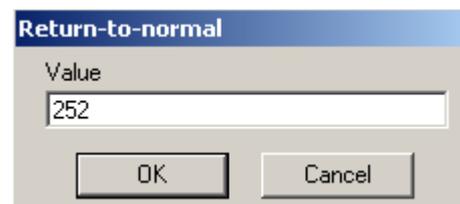
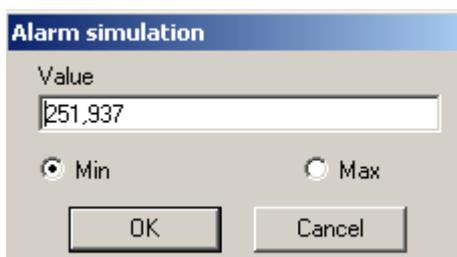
### 6.2.1 Fault simulation

Fault simulation can be used to test a call program

To simulate a fault on a variable, just click on the  button.

If the variable is a logical variable, KERWIN does not request confirmation and a fault are generated. If the variable already has fault status, KERWIN generates a return to normal (flip-flop)

For an analogue variable, KERWIN proposes a Min or Max event. You must enter the threshold exceeding value. Click once more on the mouse and you will be asked for the return to normal value:



6.3 FILE FORM

In view mode, the file form can be used to perform the following actions:

- Immediate retrieval of a file
- Manual exporting of a measurement file
- Viewing in the form of a chart and editing of the file selected



In edit mode the file form looks like this:

The screenshot shows the 'File configuration' dialog box with the following details:

- Site:** 3M\_APSA3
- Name:** CUSTOMER
- Protocol:** NapBus
- Files:** 1MINPROC, 5MINPROC, ALARM, configuration, CRYOPURG, CUSTOMER (selected), Daily, DownTime
- Type:** Historical
- Comm-link:** (empty)
- Category:** (empty)
- Records:** 1343 records from 20/01/2005 02:54:32 to 03/03/2005 02:24:31
- Call History:**
  - Last successful call: 03/02/2005 09:29:24
  - Last attempted call: 03/02/2005 09:29:24
  - Last attempted call result: Success

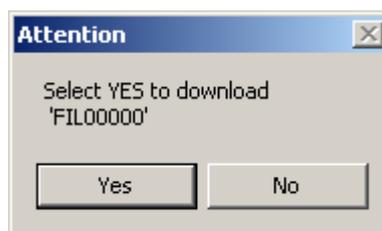
Callouts indicate: 'Information about records' points to the record count and date range; 'Information about retrieval' points to the call history.

The information displayed depends on the type of file and local unit.

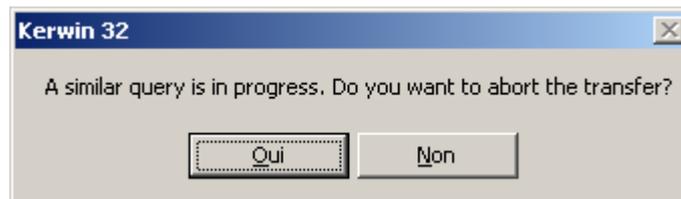
6.3.1 Immediate retrieval of a file

Following this action, KERWIN retrieves the latest records for the file selected.

To initiate reading, just click on the button. A confirmation button will appear:



If this action is already in progress, the confirmation box will be different:



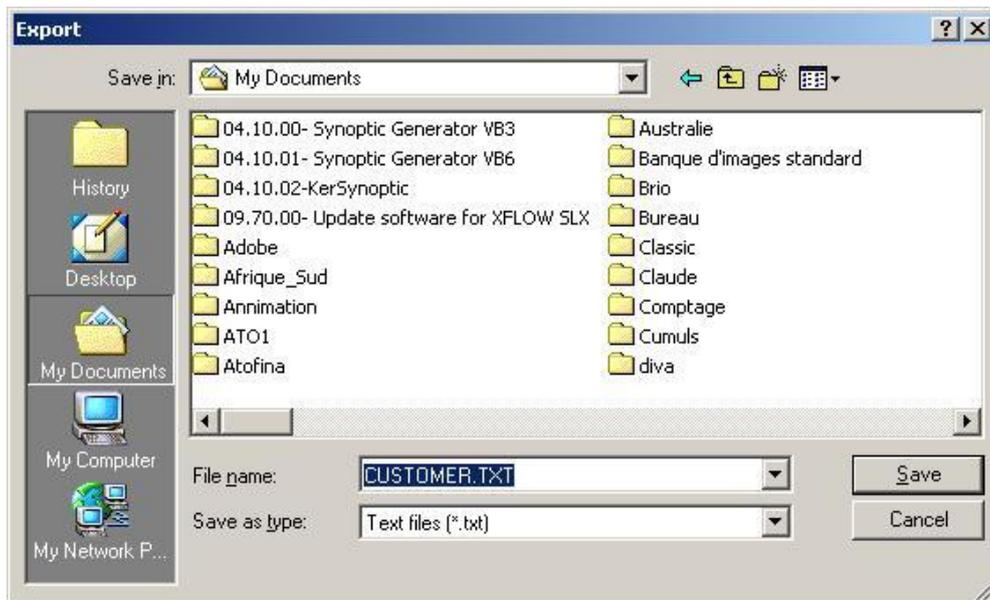
In this case the "Yes" button cancels the action initiated if this hasn't yet started

### 6.3.2 Manually exporting a measurement file

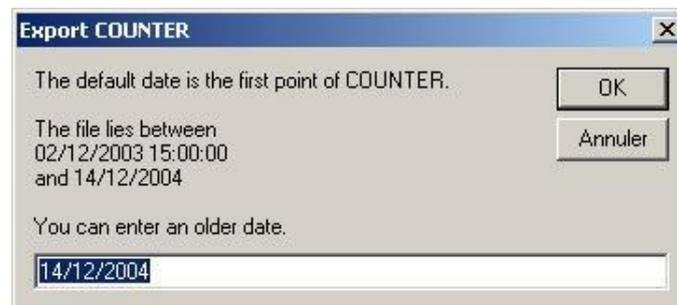
KERWIN allows the exporting of measurement files to carry out specific processing using other software. The files thus created are in text format, comprehensible by the majority of the editors or spreadsheet on the market.

To export the measurement file selected, just click on the  button. You will need to enter certain information:

- Name of the target file



- Export start and finish date

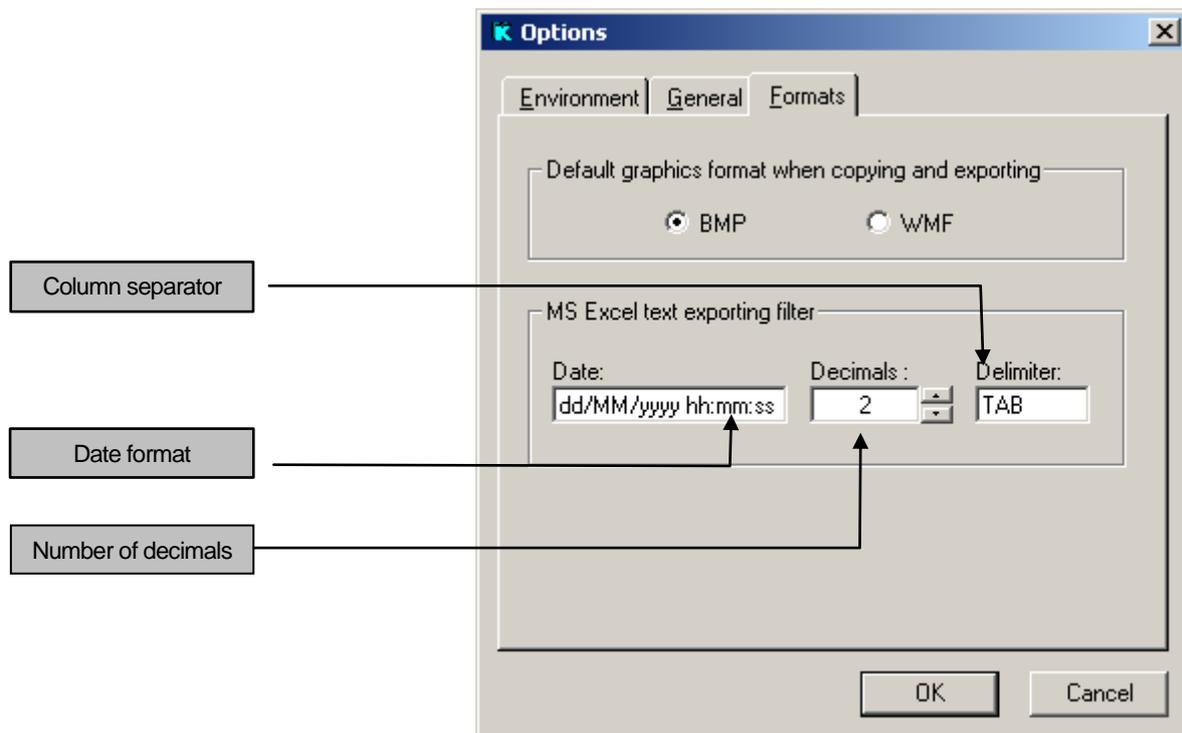


You can monitor the exporting of the data through this indicator.



### 6.3.2.1 Setting the export format

The manual export format can be parametered via the "Options" item of the "System > Advanced" menu



Validate your changes by clicking on the button 'OK'

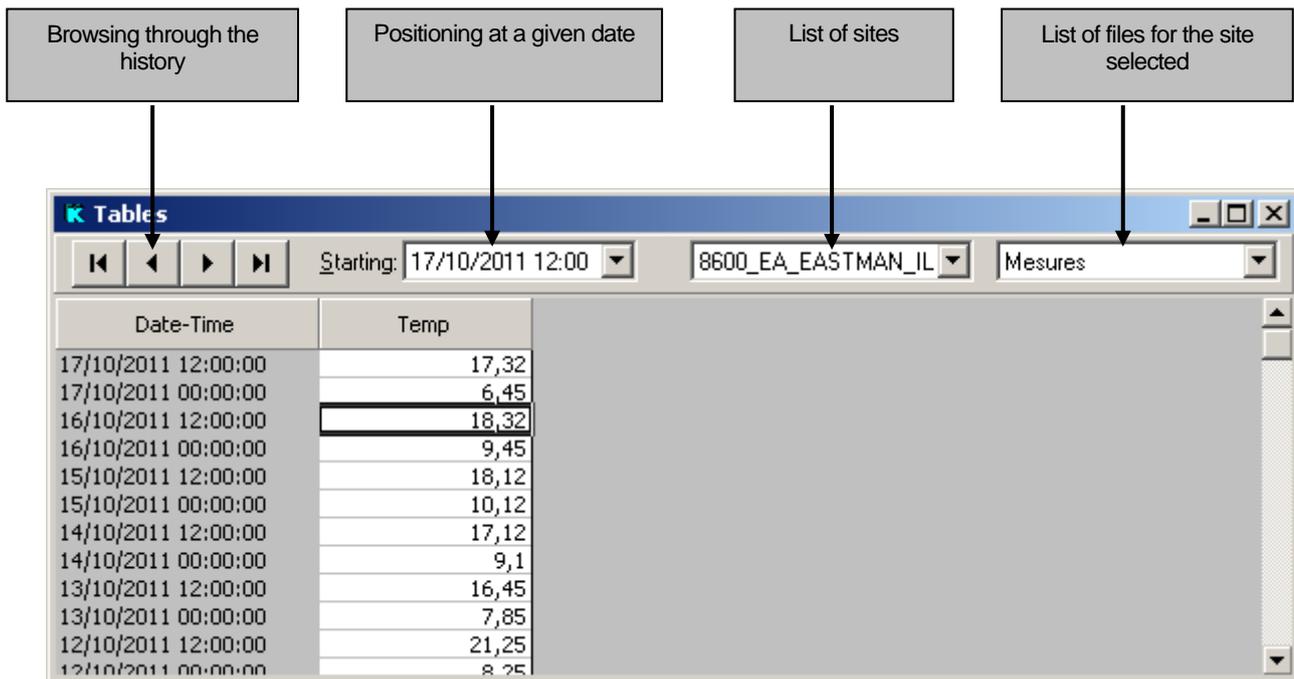
**Attention:** if an exported variable has an associated unit, the format of the value will be expressed by the unit.

### 6.3.3 Viewing in the form of a table and editing of a measurement file

KERWIN allows the presentation of measurement files in the form of time-stamped record tables. The records are presented from the most recent to the oldest.

By going into configuration mode you can edit the table's values.

Select the file to be viewed then click on the  button



#### 6.3.3.1 Browsing through the history

The table is presented in the form of pages of 200 records. The browsing buttons allow you to move from page to page, from left to right, to go to:

- The first page of the table (towards the most recent records)
- The previous page (towards the most recent records)
- The next page (towards the oldest records)
- The last page (towards the oldest records)

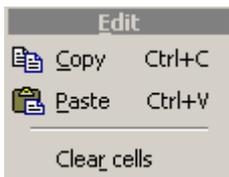
#### 6.3.3.2 Positioning at a given date

In the *Start* field enter a date and confirm by pressing <Enter>. The table will be refreshed from this date

6.3.3.3 Editing measurements

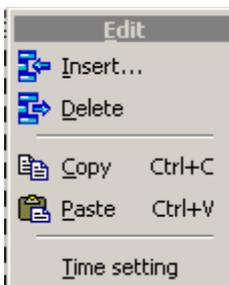
To edit the measurement table, you must go into configuration mode by clicking on the  button. You can carry out editing actions using the mouse:

- Double-clicking on a cell allows you to change the cell's value. To confirm the modification, just press [Enter] or select another cell. To cancel the modification, just press [Escape]
- Right-clicking on a value or a selection of values brings up the following menu



Copy	Copies the contents of the selection into the memory
Paste	Pastes the contents of the memory into the table
Delete	Deletes the data selected

- Right-clicking on a date or a selection of dates brings up the following menu



Insert... Adds one or several blank records

**Insertion of rows**

Date of the first row :

Amount of rows to be inserted :

Time step (s) :

Delete	Destroys the records selected
Copy	Copies the contents of the selection into the memory
Paste	Pastes the contents of the memory into the table

Time setting Moves a record in time

Date-Time	FI971_sm3
03/03/2005 02:24:31	309,504
03/02/2005 02:09:31	306,176
03/02/2005 01:54:32	309,504
03/02/2005 01:39:31	306,176
03/02/2005 01:24:31	306,176
03/02/2005 01:09:31	304,512
03/02/2005 00:54:31	307,84
03/02/2005 00:39:31	306,176
03/02/2005 00:24:31	309,504
03/02/2005 00:09:31	306,176
03/02/2005 00:00:00	309,504
03/01/2005 23:45:31	306,176
03/01/2005 23:30:31	309,504
03/01/2005 23:15:31	306,176
03/01/2005 23:00:31	309,504
03/01/2005 22:45:31	306,176
03/01/2005 22:30:31	309,504
03/01/2005 22:15:31	306,176
03/01/2005 22:00:31	309,504
03/01/2005 21:45:31	306,176
03/01/2005 21:30:31	309,504
03/01/2005 21:15:31	306,176
03/01/2005 21:00:31	309,504
03/01/2005 20:45:31	306,176
03/01/2005 20:30:31	309,504
03/01/2005 20:15:31	306,176
03/01/2005 20:00:31	309,504
03/01/2005 19:45:31	306,176
03/01/2005 19:30:31	309,504
03/01/2005 19:15:31	306,176
03/01/2005 19:00:31	309,504
03/01/2005 18:45:31	306,176
03/01/2005 18:30:31	309,504
03/01/2005 18:15:31	306,176
03/01/2005 18:00:31	309,504
03/01/2005 17:45:31	306,176
03/01/2005 17:30:31	309,504
03/01/2005 17:15:31	306,176
03/01/2005 17:00:31	309,504
03/01/2005 16:45:31	306,176
03/01/2005 16:30:31	309,504
03/01/2005 16:15:31	306,176
03/01/2005 16:00:31	309,504
03/01/2005 15:45:31	306,176
03/01/2005 15:30:31	309,504
03/01/2005 15:15:31	306,176
03/01/2005 15:00:31	309,504
03/01/2005 14:45:31	306,176
03/01/2005 14:30:31	309,504
03/01/2005 14:15:31	306,176
03/01/2005 14:00:31	309,504
03/01/2005 13:45:31	306,176
03/01/2005 13:30:31	309,504
03/01/2005 13:15:31	306,176
03/01/2005 13:00:31	309,504
03/01/2005 12:45:31	306,176
03/01/2005 12:30:31	309,504
03/01/2005 12:15:31	306,176
03/01/2005 12:00:31	309,504
03/01/2005 11:45:31	306,176
03/01/2005 11:30:31	309,504
03/01/2005 11:15:31	306,176
03/01/2005 11:00:31	309,504
03/01/2005 10:45:31	306,176
03/01/2005 10:30:31	309,504
03/01/2005 10:15:31	306,176
03/01/2005 10:00:31	309,504
03/01/2005 09:45:31	306,176
03/01/2005 09:30:31	309,504
03/01/2005 09:15:31	306,176
03/01/2005 09:00:31	309,504
03/01/2005 08:45:31	306,176
03/01/2005 08:30:31	309,504
03/01/2005 08:15:31	306,176
03/01/2005 08:00:31	309,504
03/01/2005 07:45:31	306,176
03/01/2005 07:30:31	309,504
03/01/2005 07:15:31	306,176
03/01/2005 07:00:31	309,504
03/01/2005 06:45:31	306,176
03/01/2005 06:30:31	309,504
03/01/2005 06:15:31	306,176
03/01/2005 06:00:31	309,504
03/01/2005 05:45:31	306,176
03/01/2005 05:30:31	309,504
03/01/2005 05:15:31	306,176
03/01/2005 05:00:31	309,504
03/01/2005 04:45:31	306,176
03/01/2005 04:30:31	309,504
03/01/2005 04:15:31	306,176
03/01/2005 04:00:31	309,504
03/01/2005 03:45:31	306,176
03/01/2005 03:30:31	309,504
03/01/2005 03:15:31	306,176
03/01/2005 03:00:31	309,504
03/01/2005 02:45:31	306,176
03/01/2005 02:30:31	309,504
03/01/2005 02:15:31	306,176
03/01/2005 02:00:31	309,504
03/01/2005 01:45:31	306,176
03/01/2005 01:30:31	309,504
03/01/2005 01:15:31	306,176
03/01/2005 01:00:31	309,504
03/01/2005 00:45:31	306,176
03/01/2005 00:30:31	309,504
03/01/2005 00:15:31	306,176
03/01/2005 00:00:31	309,504
03/01/2005 00:00:00	309,504

février 2005

	lun.	mar.	mer.	jeu.	ven.	sam.	dim.
31	1	2	3	4	5	6	7
8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
Today: 23/02/2005							

**Note:** type the [Del] key deletes a record

**Note:** All changes are immediately recorded in the database and cannot be cancelled.

## 6.4 FILECHARTERS

Using the KERWIN software, the measurement histories can be exploited from variable groups. A variable group is a multiple site, multiple file list of the variables of your choice.

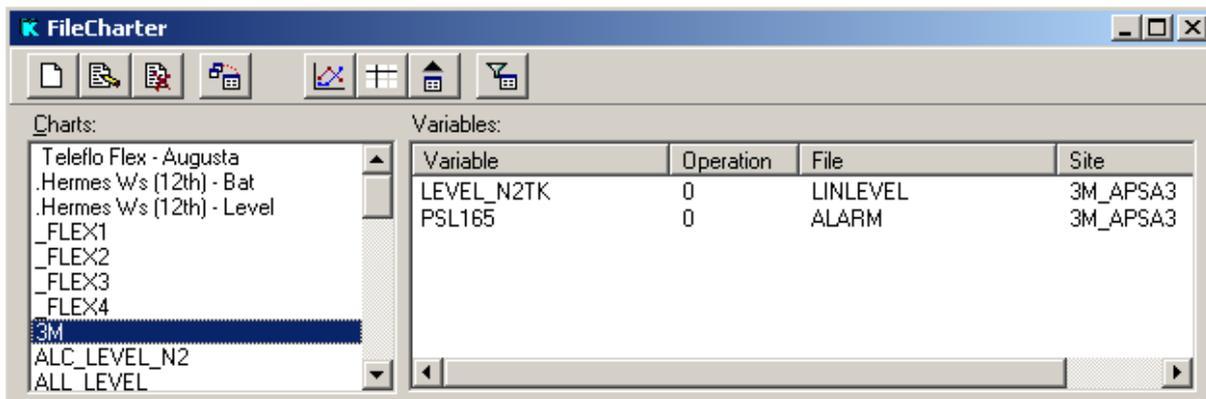
It may contain logic and analogue variables. You can also select an event file in order to view the various changes in alarm status of certain variables.

In view mode, this form can be used to perform the following actions:

- Manual exporting of a variable group
- Viewing in the form of a table and editing of the group selected
- Filtering the groups by site
- Graphic representation of the group selected



In edit mode the form displayed as follow:



### 6.4.1 Manually exporting a variable group

KERWIN allows the exporting of a variable group so that specific processing can be carried out using other software. The files thus created are in text format, comprehensible by the majority of the editors or spreadsheet on the market.

Select the variable group to be exported then click on the  button. For the rest of the procedure, refer to [manually exporting a measurement file](#).

### 6.4.2 Viewing in the form of a table and editing of the group selected

KERWIN allows the presenting of a variable group in the form of time-stamped record tables. The records are presented from the most recent to the oldest.

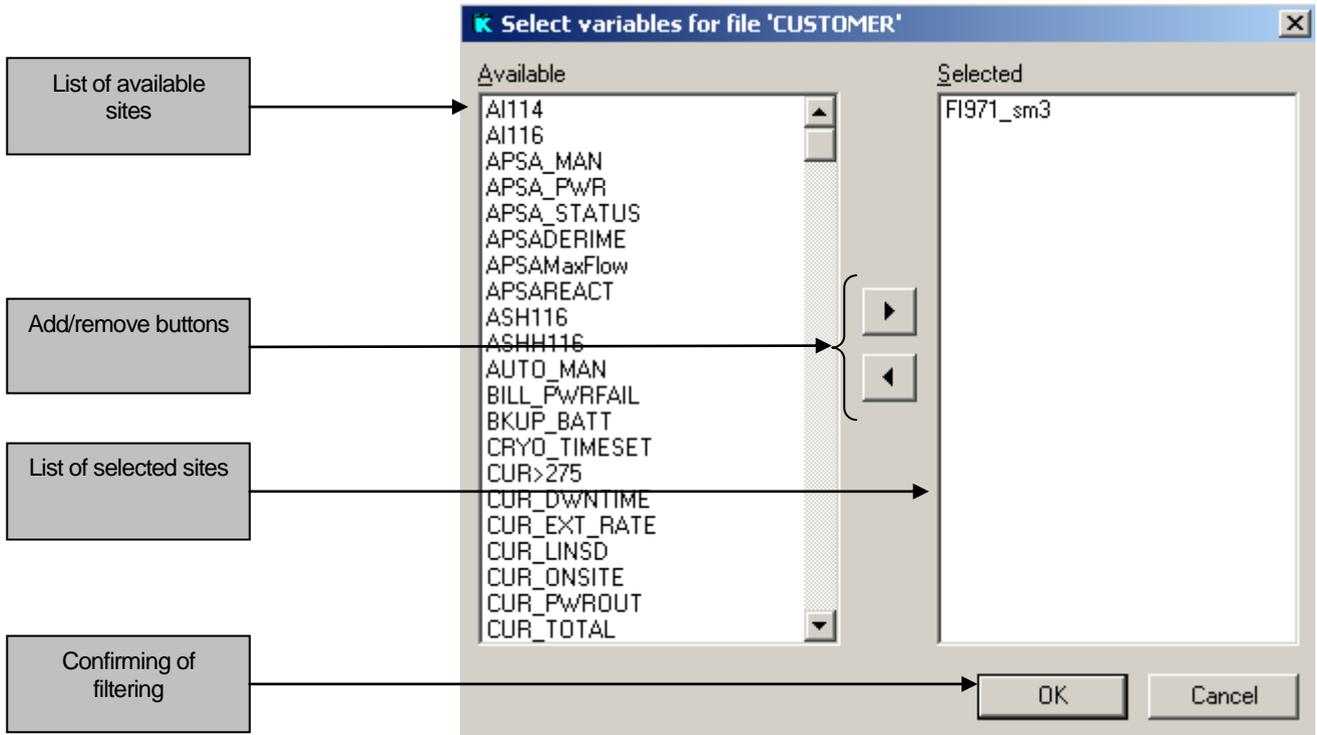
By going into configuration mode you can edit the table's values

Select the variable group to be viewed then click on the  button. For the rest of the procedure, refer to [viewing in the form of a table and editing of a measurement file](#).

6.4.3 Filtering variable groups

If you have configured a lot of variable groups, it may be worthwhile filtering them according to the site from which the files come. All the groups connected with one of the sites selected will be displayed in the list.

To filter the variable groups, click on the  button. The site selection dialogue box will appear:



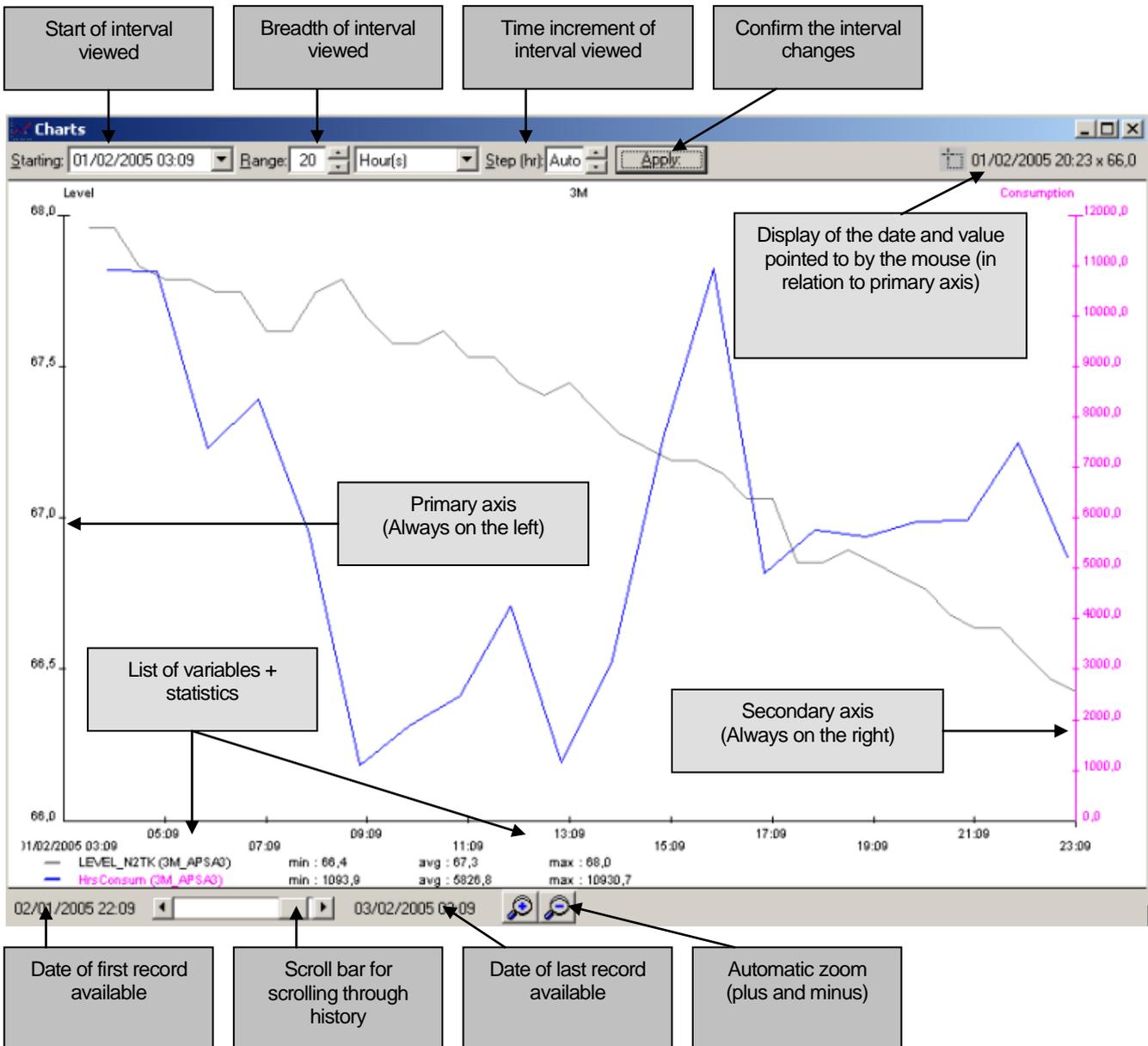
If you no longer require a filter, empty the list of selected sites and confirm your choice by clicking on the OK button.

**6.4.4 Graphic representation of a variable group**

KERWIN allows the presenting of a variable group in the form of a graph. For the configuring of new graphs, refer to this manual's Parametering section.

Select the variable group to be viewed in the form of a graph then click on the  button.

**6.4.4.1 Presentation of the file charter screen**



In view mode, the graph form allows:

- Pointing using the mouse with displaying of the date and value of the point
- Manually or zooming in on a portion of the screen
- Quick browsing through the entire history interval by interval.
- The modifying of the time interval displayed and the time increment
- The printing or sending by fax or email of the current graphic interval.

**Comments****Number of points displayed on each screen**

A screen may contain a maximum of 100,000 points for all the variables displayed. If the display period that you have chosen is too large, or if the number of variables displayed is too great, this limit will be exceeded. In this case, the screen will not be fully occupied.

**Toolbar**

You can display or hide the graphic screen's upper and lower bars by pressing the "Esc" key.

**6.4.4.2 Gradual scrolling through the files**

Click on the arrows of the **Scroll bar** in the lower banner. The left arrow allows you to move towards the oldest records and the right arrows towards the most recent, for the time interval defined by **Start date** and **Finish date**.

You can also use the keyboard's <←> and <→> keys to move in the same way.

**6.4.4.3 Direct positioning on the 1<sup>st</sup> or last record**

Click on the **Scroll bar** button and without releasing the mouse slide it fully to the left to go to the first record and fully to the right to go to the last.

**6.4.4.4 Positioning at a given date**

Click on the **Scroll bar** button and without releasing the mouse slide it towards the left or the right. **Start date** and **Finish date** will be automatically updated according to the position of the button. When you are on the required date, release the mouse button.

**6.4.4.5 Modifying the screen's display time**

Change the **Start date**, **Range**, or both, to increase or reduce the screen's display interval. To confirm your modification, press <Enter> or click on **Apply**.

**Note: Date format**

The complete date format is: DD/MM/YY hh:mm:ss

The year does not need to be indicated; by default KERWIN takes the current year. The indicating of the hour is also optional; by default KERWIN is positioned on the first record available in the file at the date indicated.

**6.4.4.6 Modifying the time increment**

Modify the time increment (in hours) to reduce or increase the number of points displayed on the screen. To confirm your modification, press the <Enter> key or click on the **Apply** button.

**Note: Time increment in hours**

With a time increment of one hour, KERWIN displays one point per hour. With a time increment of 2 hours, 1 point is displayed every two hours. In **auto (0)** mode, KERWIN displays all the points.

#### 6.4.4.7 Zoom



This can be accessed using the **automatic zoom** buttons in the upper banner.

The + button enlarges the central portion of the screen according to a predetermined and adjustable ratio (see Customising graphics - Zoom), the – button reduces the window according to the same ratio.

You can also zoom in on a chosen portion of the screen. To do this:

- Move the mouse to the top left of the portion of the screen that you would like to zoom in on
- Left-click and while holding the button down move the mouse on the screen; a frame will appear between the point initially clicked on and the position of the mouse
- Release the mouse button once the required portion has been selected; the zone will be enlarged
- To undo, click on the negative zoom button.

#### **Note: Using the negative zoom button**



KERWIN stores the last 10 enlargements of the graphic screen. The negative zoom button can be used at any time to reduce the screen by a ratio equal to the current enlargement.

#### 6.4.4.8 Displaying the date and value of a point

Move the cursor onto the curve and onto the point required. KERWIN will display the date and value of the point given in the primary axis' scale in the upper right banner.

#### 6.4.4.9 Printing the screen



Click the Print button in the main window's toolbar. The graph will be printed as it appears on the screen.

#### **Note: The name of the printer must no exceed 31 characters**

#### 6.4.4.10 Sending the graph by fax or by email



Click the fax/email button in the main window's toolbar. Select your recipient. The graph will be faxed or sent by email, as it is displayed on the screen.

#### 6.4.4.11 Scheduled printing and sending of faxes and emails

KERWIN allows you to schedule when graphs are printed or sent by fax and email. For example, you can print certain screens every day at 7.00 in the morning.

To implement this type of scheduled action you must use the sequencer (refer to parametering the sequencer).

#### 6.4.4.12 Copy and paste a graph in the clipboard

KERWIN allows you to copy the current graph in the clipboard. To do that you need to display the graph, to select the preferred zone and to press the keys [CTRL] + [C]. To paste the graph where you want (paint) on only have to press the keys [CTRL] + [V]

**NOTE:** To modify display parameters as axis, colour, threshold ...refer to configuration part for filecharter ([Filecharter](#)).

6.5 EVENT FORMS

The events managed by the KERWIN master station can be accessed by the user, for viewing or to perform a specific action (acknowledgement, deactivation, and destruction), using specific forms: event windows. The forms are fully configurable, in terms of presentation (character fonts, colours, items displayed) and in terms of selecting the events to be displayed.

There are two default forms (complete history and current faults); in addition to these forms it is possible to define as many additional forms as necessary: for example, a form for current faults relating to a particular sector or a form for all the events to be acknowledged ...

An event form looks like this:

The screenshot shows the 'Events - [al]' window with a table of event data. Callouts point to various UI elements:

- Details of an event**: Points to a specific row in the table.
- Acknowledgement**: Points to the 'A' icon in the toolbar.
- Deactivation**: Points to the 'D' icon in the toolbar.
- Deletion**: Points to the 'X' icon in the toolbar.
- Browsing keys**: Points to the navigation arrows in the toolbar.
- Automatic refresh**: Points to the 'Refresh automatically' checkbox.
- Total number of events in the selection**: Points to the '11742 events' text.
- Exporting**: Points to the 'Export' icon in the bottom toolbar.
- Font and size of characters**: Points to the font settings icon.
- Filter criteria**: Points to the filter dropdown menu.
- Selecting of items**: Points to the selection icons.
- Add, Modify, Delete event forms**: Points to the form management icons.
- List of the various event forms**: Points to the form list icon.
- Choosing of display colours**: Points to the color selection icon.

Reception time	Occurrence time	Timezon	Site	Label	Type	Value
23/02/2005 11:32:08	23/02/2005 11:32:08	-06:00	FLEX1 - Cincin	2LINL	A. IN	251,9
23/02/2005 11:31:14	23/02/2005 11:31:14	-06:00	FLEX1 - Cincin	1LINL	A. IN	10,0
14/02/2005 16:04:58	14/02/2005 16:04:58	-08:00	ZZ	Comm. fault	System	
14/02/2005 14:53:20	14/02/2005 14:53:20	-08:00	0501L-ENGHIEN-G	Comm. fault	System	
08/02/2005 16:41:34	08/02/2005 16:41:34			claire	Alerts	Email
03/02/2005 09:15:49	03/02/2005 09:15:49	-06:00	FLEX1 - Cincin	1LINL	A. IN	10,0
01/02/2005 15:34:04	01/02/2005 15:34:04			COM4	System	
08/12/2004 09:29:12	08/12/2004 09:29:12			COM2	System	
05/08/2004 16:13:51	05/08/2004 16:13:51	-06:00	TRIO	Comm. fault	System	
01/03/2004 11:54:25	01/03/2004 11:54:25	-05:00	7RIVERS_ORL	LOX#1_PRESS	A. IN	146,9
17/02/2004 10:27:28	17/02/2004 10:27:28	-06:00	S_FARMS_AST	CO2#1_DP_lb	A. IN	59065
17/02/2004 10:17:31	17/02/2004 10:17:31	-06:00	S_FARMS_AST	CO2 %FULL	A. IN	27,8
21/10/2003 17:06:41	21/10/2003 17:06:41	-05:00	ZTECH MNE	DINA_MANAGER	Var. deactivate	
19/09/2003 15:53:50	19/09/2003 15:53:50	-07:00	P_SIERITA_A2	Comm. fault	System	
18/09/2003 15:43:59	18/09/2003 15:43:59			0	Alerts	Email
18/09/2003 15:43:57	18/09/2003 15:43:57			0	Alerts	Email
18/09/2003 15:42:34	18/09/2003 15:42:34			0	Alerts	Email
18/09/2003 15:42:20	18/09/2003 15:42:20			0	Alerts	Email
18/09/2003 15:42:17	18/09/2003 15:42:17			0	Alerts	Email

### 6.5.1 Default forms

KERWIN comes with two event forms:

- One relates to all events.
- The other to current faults: in other words the alarms for which the return to normal has not reached KERWIN.

### 6.5.2 Creating a new form

In addition to the previous forms, it is possible to create windows specific to your application.

A new form can be created from any existing form by clicking on the  button.

KERWIN then opens a dialogue box in which you must enter the name of the new form:



After you have confirmed by clicking on OK, KERWIN will display the new form that retains the properties of the form from which it was produced.

All you need then is to customise it by using the commands described in the following paragraphs.

**Note:** The forms thus created will appear in the Events item of KERWIN's View menu.

### 6.5.3 Customising the presentation

The presentation of the event forms is customised in three different ways:

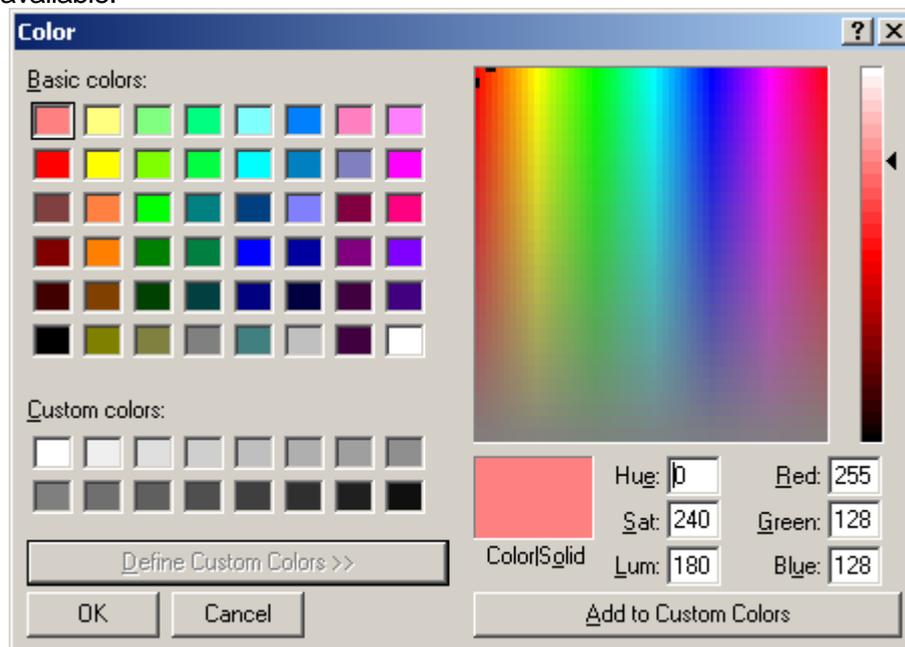
- Choosing of colours
- Choosing of the character font
- Choosing of the items to be displayed

#### 6.5.3.1 Choosing the display colours

KERWIN allows you to choose the background and text colours so that each type of event can be distinguished:

- The background colour allows the distinguishing of the activity or alarm statuses (Active, Acknowledged, Deactivated)
- The text colour allows the severity of the alarms to be distinguished (Signalling, Minor, Critical).

To change a color, click on the required status or severity. KERWIN will then display a window showing the pallet of colours available:

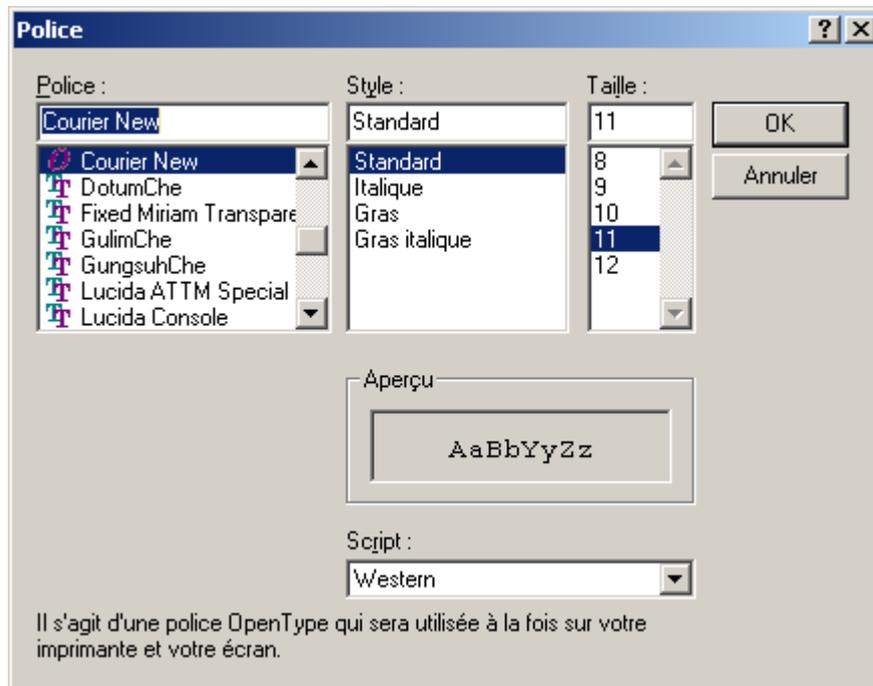


Select the new colour by clicking on the corresponding box and confirm with OK.

### 6.5.3.2 Choosing the font

KERWIN allows the choosing of the character font, style and size to be used to display events by clicking on the  button at the bottom of the forms.

KERWIN then displays the following dialogue box:

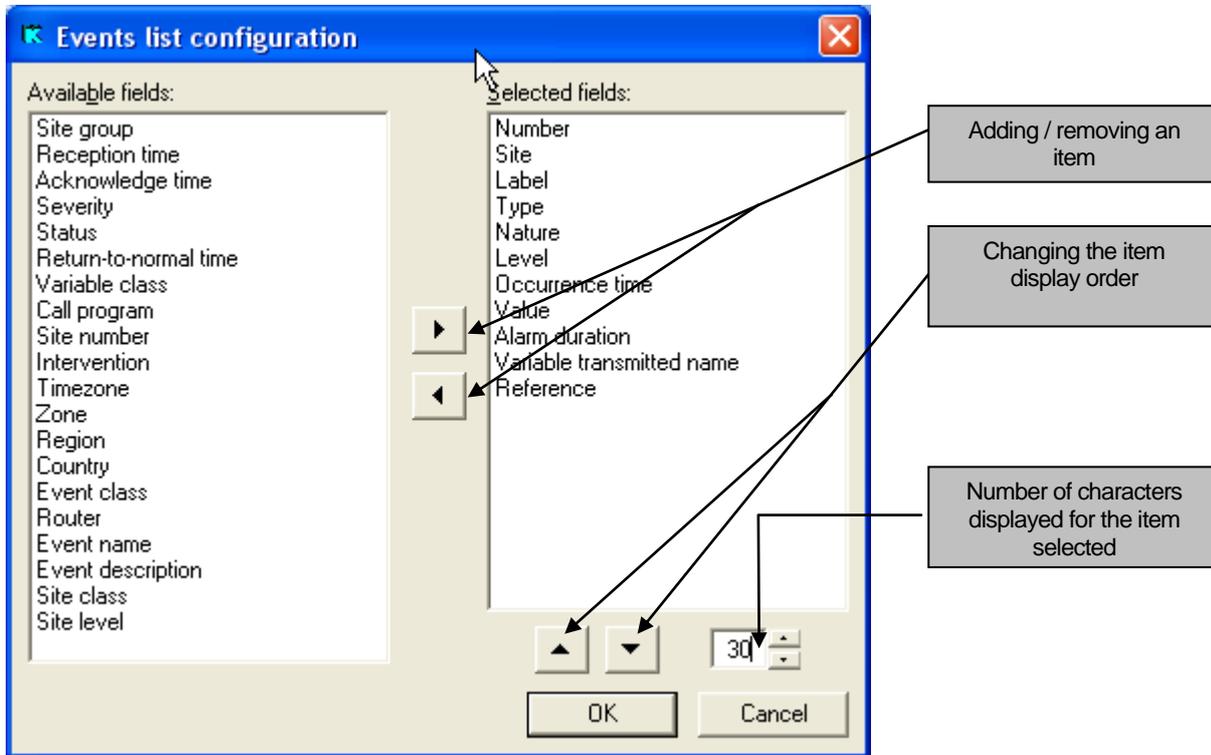


KERWIN will only propose non-proportional fonts.

6.5.3.3 Choosing the items to be displayed

KERWIN also lets you choose the items to be displayed by clicking on the  button at the bottom of each form.

KERWIN then displays the following dialogue box:



The horizontal arrows allow you to select / delete the items to be displayed, while the vertical arrows are used to define the display order.

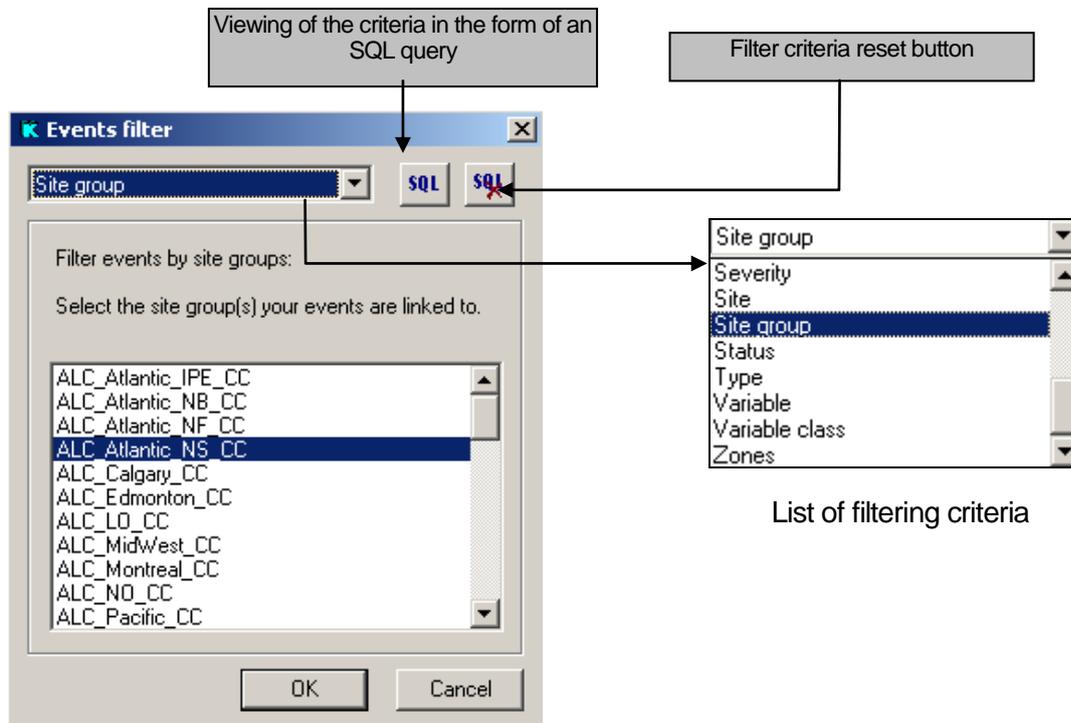
**6.5.4 Multiple criteria sorting**

KERWIN allows the selecting of events according to a number of criteria: origin of the events (Sector, Site), type or status of the events, appearance dates, etc; for example, you can create a window bringing together the Electricity class Critical alarms for the Southern sector for the month of March.

This filter and multiple criteria sorting functionality may be used during the configuration phase to create dedicated, frequently used operating windows (e.g. Southern Sector Alarms to be acknowledged); see creating new listing windows. It can also be used in current operation for temporary needs, both with predefined windows (Current faults, History) and dedicated windows.

To perform a sort, click on the  button:

KERWIN will then display the following screen:



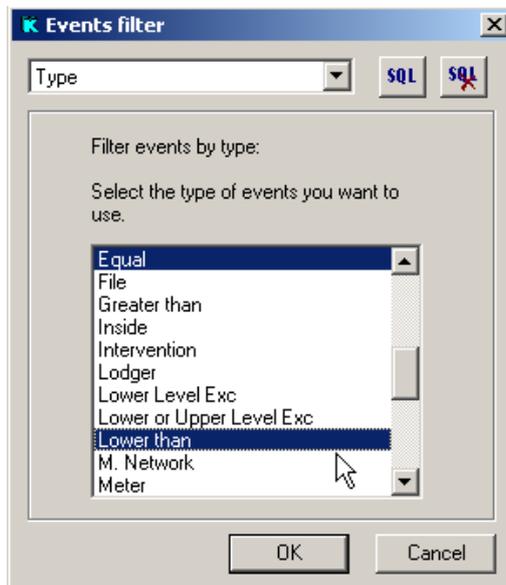
Several criteria may be selected out of those available.

**For example:**

- All the local units in the “Oklahoma City” or ”Orlando” sectors
- Out of these, the variables whose labels include the letters “PRESS” (for “PRESSURE”):



- And out of these, only the “Equal to” or “Lower than” type variables:



**Note:**

1. The Reset button allows you to reset the criteria: the events selected will then be those of the entire history.
2. To select several non-consecutive elements: <CTRL>+<Left-click>
3. To select several consecutive elements: <SHIFT>+<Left-click>

**Criteria of type “Variable” or “Event name” (labels or parts of labels)**

To define a criterion that takes into account all the events whose labels contain a given character string (“PRESS” in the example above), you can use the “%” character, which means that the characters before and/or after the string are ignored; it is therefore possible to choose:

- “%PRESS%” for all the labels that contain PRESS
- “%PRESS” for all the labels that end with PRESS
- “PRESS%” for all the labels that start with PRESS

KERWIN does not distinguish between Upper case and Lower case.

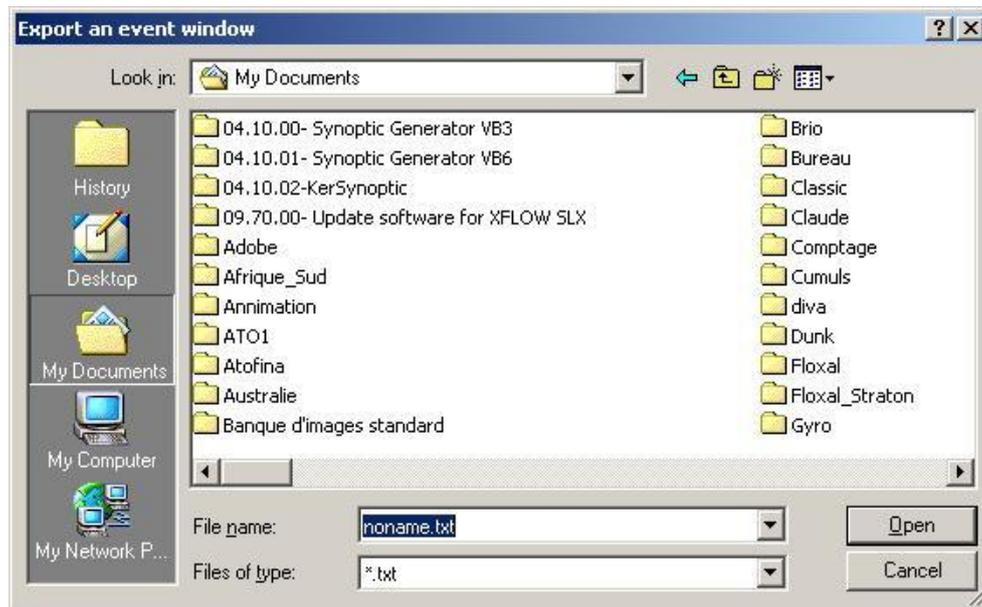
These criteria may also be applied to the table of past events (following the event cleaning function) rather than the table of current events.



This means that an event window can be created that is dedicated to past events only.

### 6.5.5 Exporting

Using the  button you can export events from the current form in tabulated text format. KERWIN then displays the following dialogue box:



In which you must choose the name of the text file.

### 6.5.6 Printing

The  button in the main toolbar allows you to print all the current form's events.

#### **Note**

Exporting and printing operations can also be accessed via the sequencer so that they can be performed in an automated way.

### 6.5.7 Event details

An event's details may be viewed by double-clicking on the corresponding line in the form or using the  button.

The following form is then displayed by KERWIN:



<u>Number:</u> 287562	<u>Dates:</u>
<u>Nature:</u> Normal	<u>Occurrence:</u> 03/05/2012 17:08:34
<u>Severity:</u> Critical	<u>Reception:</u> 03/05/2012 17:08:44
<u>Status:</u> Disabled	<u>Return-to-normal:</u>
<u>Label:</u> seuil	<u>Acknowledgement:</u>
<u>Type:</u> Greater than	<u>Site:</u>
<u>Class:</u>	<u>Name:</u> xflow2
<u>Value:</u> 0,0	<u>Class:</u> classe_def
<u>Level:</u> 0	<u>Level:</u> 1
<u>Call program:</u>	<u>Handling procedure:</u>
<u>Name:</u> ALAkwn	
<u>Description:</u> tst comment	

The "Call programme" field indicates the name of the call programme used to route this alarm.

### 6.5.8 Automatic and manual refreshing

The "Autorefresh" tickable box allows the automatic refreshing of the form, in other words its constant updating in viewing mode, in the following situations:

- Receiving of new events
- Changing of the status of an existing event through an action performed by another operator (over the network or through telephone access): acknowledgement or forced deactivation

Automatic refreshing may slow down KERWIN's reactions to operator commands; it may therefore be worthwhile deactivating it, especially in the configuration phase.

In this case it is possible to request the manual refreshing of the window at any time; this request is made by pressing the F5 or F9 key.

### 6.5.9 Actions on events

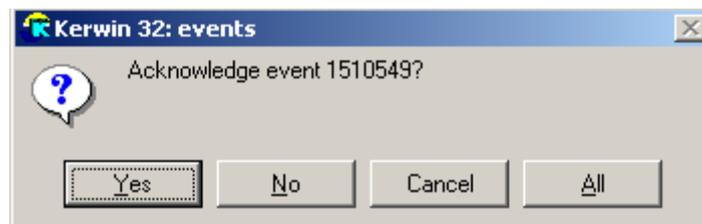
The following actions may be performed on one or several events from the event forms:

- Acknowledgement:  Indicating that you have been alerted
- Deactivation:  Manually indicating a return to normal
- Deletion:   
**Note** that the event is permanently deleted from the database.

In any case, the procedure to be followed is:

- Selecting with the mouse of the event(s) concerned
- Mouse-click on the button corresponding to the action required

For an acknowledgement, KERWIN displays the following dialogue box:



“Yes” confirms the action on the current event and moves you on to the next

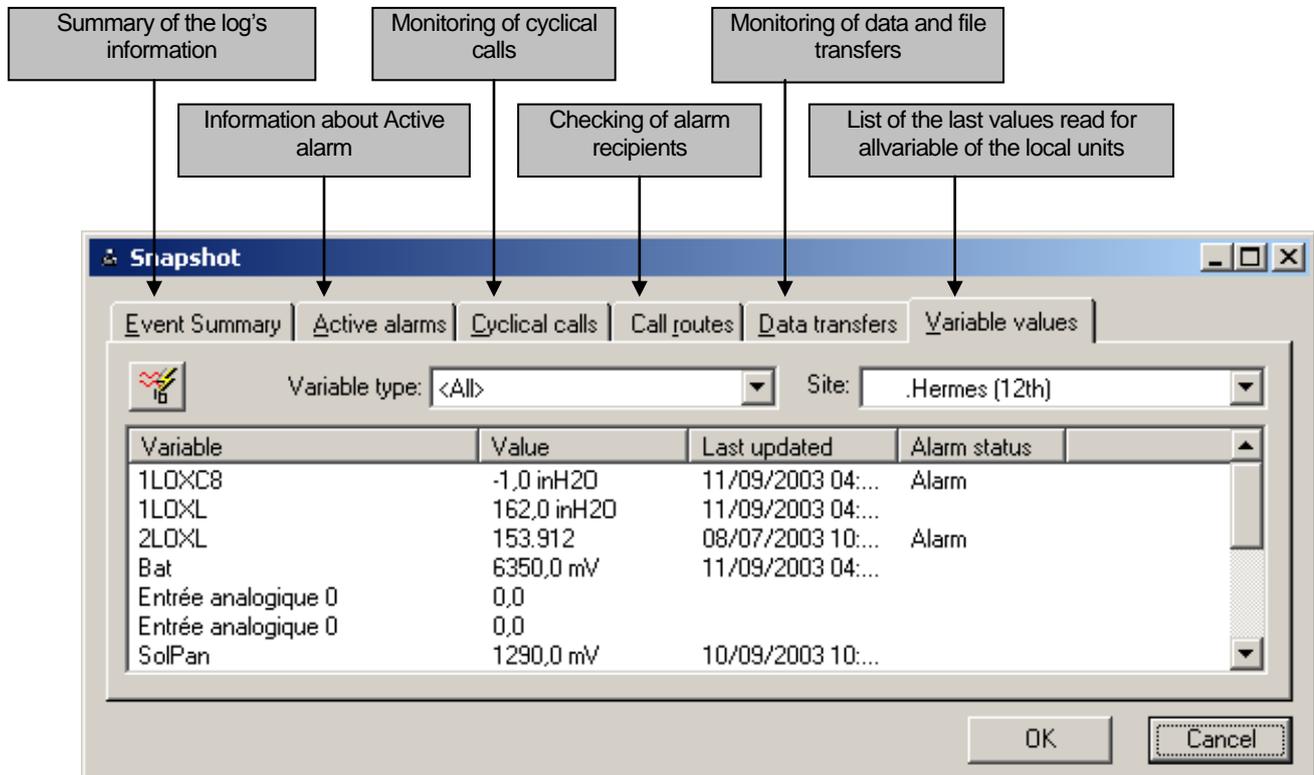
“No” cancels the action on the current event and moves you on to the next

“Cancel” interrupts the command

“All” allow you to perform the action on all the events selected

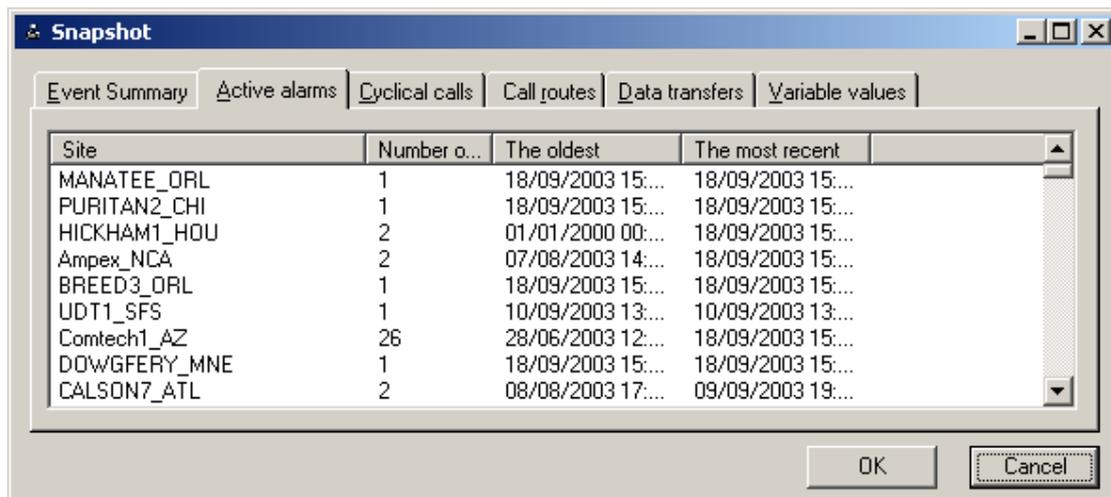
6.6 LOG/SNAPSHOT

KERWIN's log (access: View / Log or through the  icon in the main toolbar) allows fast, summarised access to the main information processed by the master station:



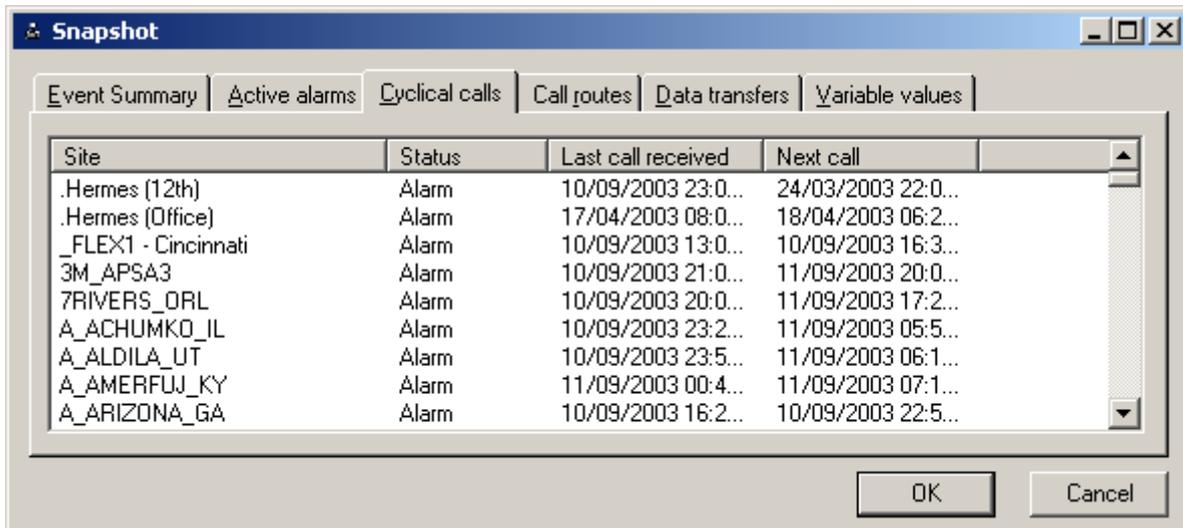
6.6.1 Active alarm

The "Active alarm" tab displays the list of sites, and for each of them, the number of current faults and the date of the oldest and the most recent.



**6.6.2 Cyclical calls**

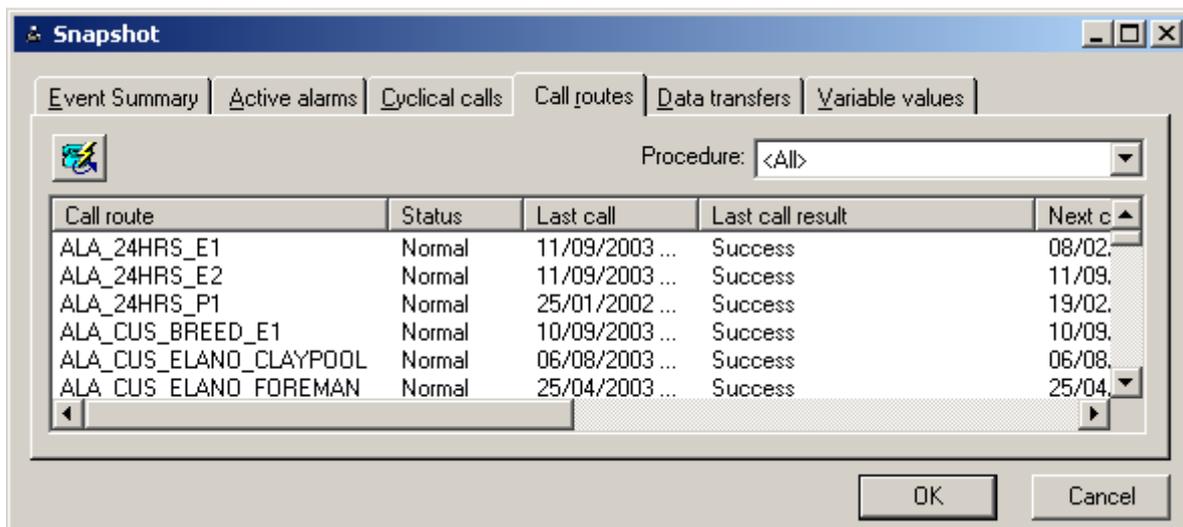
The "Cyclical calls" tab allows you to monitor the cyclical calls site by site. The sites in question must have been appropriately configured beforehand.



**6.6.3 Call routes**

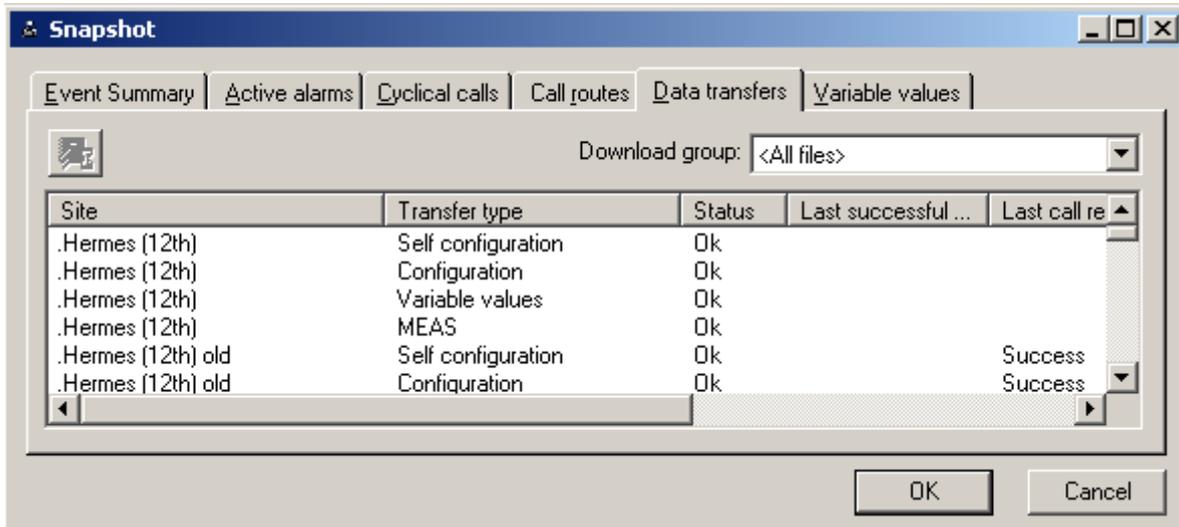
The "Call routes" tab allows you monitor the progress of call routes by direction. The form offers a choice between displaying all the directions or those of a given procedure.

You can also reconfirm a direction by clicking on the  button.



**6.6.4 Data transfers**

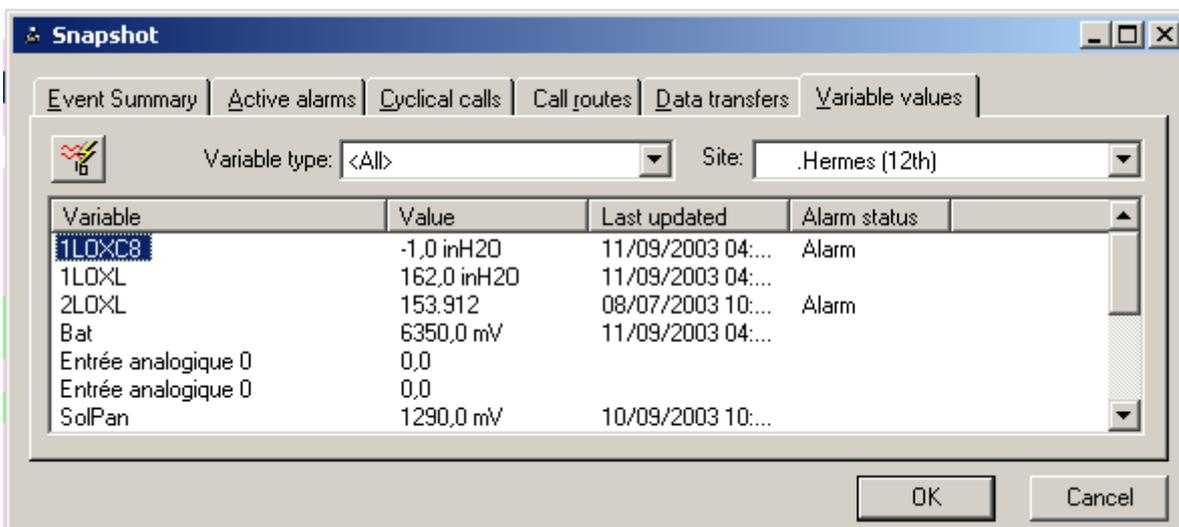
With the "Data transfers" tab you can monitor the retrieval of data file by file



**6.6.5 Variable values**

With the "Variable values" tab you can check the last values read site by site. It also displays the variables' alarm statuses.

You can force the reading of the selected site's instantaneous values by clicking on the  button.



6.7 SPREADSHEET

KERWIN's Analysis – Spreadsheet module allows the creating of customised remotely managed site measurement data viewing screens; these data must first have been retrieved from the sites.

The spreadsheet screens may be single site or multiple site; they can be used for various needs: daily retrievals at a set time, comparing of performances between sites, etc.

Amongst other things, they offer a calculation between the cells utility, the possibility of containing several sheets and 3-dimensional graphics.

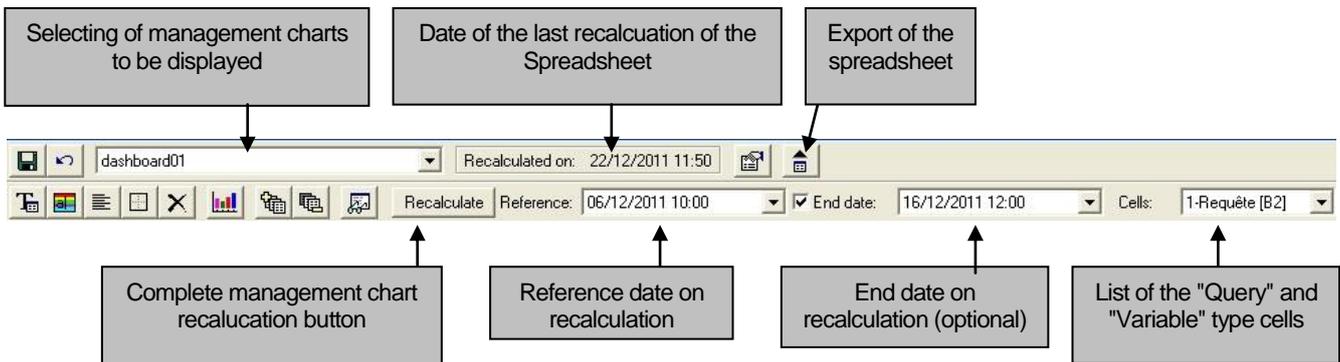
The spreadsheet module consists of two toolbars, an edit bar and a zone containing the table selected.

The screenshot shows the 'Edit dashboard' window with the following components labeled:

- General Toolbar:** Located at the top left, containing icons for file operations and data visualization.
- Dedicated Toolbar:** Located below the General Toolbar, containing a 'Recalculate' button and a 'Reference' dropdown.
- Edit bar:** Located below the Dedicated Toolbar, containing a 'Cells' dropdown.
- Zone containing the management chart:** The main spreadsheet area, showing a table with columns for 'SITES', 'VOIES', and consumption data for three days.
- Management chart's sheets:** A callout pointing to the bottom sheet tab labeled 'TB Détection fuites eau potable'.

SITES		VOIES	lun. 01	mar. 02	mer. 03
0407	SR MONTFURON	V Distribution Reservoir	0,000	0,00	0,000
0401	SR Vraies Richesses Paysa	V DISTRI 400	62,00	55,000	39,000
0401	PT MONT DOR DURANCE	V_ZI St Maurice	21,00	20,000	22,000
0401	SR SANSANO	V DIST PIERREVERT	0,10	0,500	0,300
0401	SR SANSANO	V DISTRI MANOSQUE	0,40	0,00	0,90

### 6.7.1 Toolbars in view mode



### 6.7.2 Calculation and viewing

To view a spreadsheet, follow the procedure below:

- Select "Spreadsheet" from KERWIN's "View" menu, or click on the "Spreadsheet" button  in KERWIN's general toolbar.
- KERWIN will display the first spreadsheet defined in the list at the last recalculation date.
- From this chart you can:
  4. Display the managementspreadsheet chart's values at another date by entering this date in front of the "Reference:" field and clicking on the "Recalculate" button
  5. Display another spreadsheet by selecting it from the list

#### **Note**

Any exceeding of thresholds (analogue variables) or status changes (logic variables) are signalled by the colours chosen during the configuration phase.

Data that is unknown at the requested reading date are marked with 4 stars "\*\*\*\*", in accordance with the value set for the tolerance.

### 6.7.3 Printing

To print a management chart, select a management chart from the list and click on the "Print"  button in KERWIN's general toolbar.

Several options are offered:

- Printing of the entire chart
- Printing of part of the chart; for this you must select the zone to be printed
- Printing of a graphic object; you must select the graphic to be printed
- Automatic printing; configurable at sequencer level (action: "print management chart").

The same options are offered by selecting the  button, which sends the management chart to a recipient by fax or by email in the form of a PDF file.

### 6.7.4 Exporting

To export a management chart, select a management chart from the list and click on the  button in the management chart window's toolbar.

KERWIN will then display the following dialogue box:



You can choose between the following formats:

- Excel version 5 or 7 (\*.xls)
- Tabulated text (\*.txt)

You can also export a spreadsheet automatically. For how to do this, refer to parametering the task scheduler (action: "Export charts").

In Edit mode, only the icon  export spreadsheet is available.

### 6.8 TASK SCHEDULER

The task scheduler allows you to automate some of KERWIN's functions by programming their execution dates.

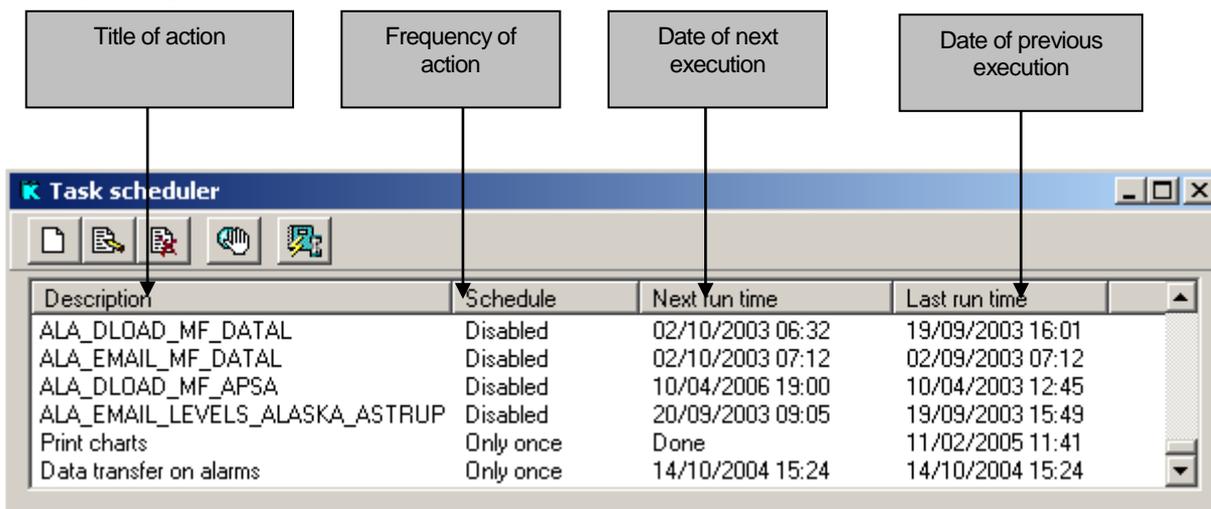
The functions managed by the sequencer module are the following:

- Printing of the log, the event listings, the graphs and the management charts
- Transferring of the local units' configuration and measurement files
- Exporting of the measurement, graph and spreadsheet
- Executing of queries on KERWIN's databases
- Executing of external programmes
- Remote controls and remote management
- Archiving and savings of KERWIN's databases
- Maintenance of KERWIN's databases
- Sites management
- Cyclical event

#### 6.8.1 Description

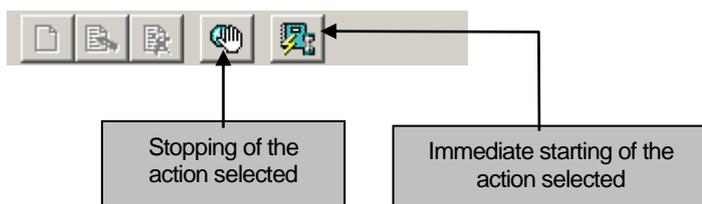
The task scheduler module is accessed via the Parametering / Sequencer menu or the  button in the general toolbar.

The sequencer displays all the actions to be executed. These actions may be sorted by clicking on the corresponding column:



The details of each action may only be accessed in configuration mode

#### 6.8.2 Toolbars in view mode



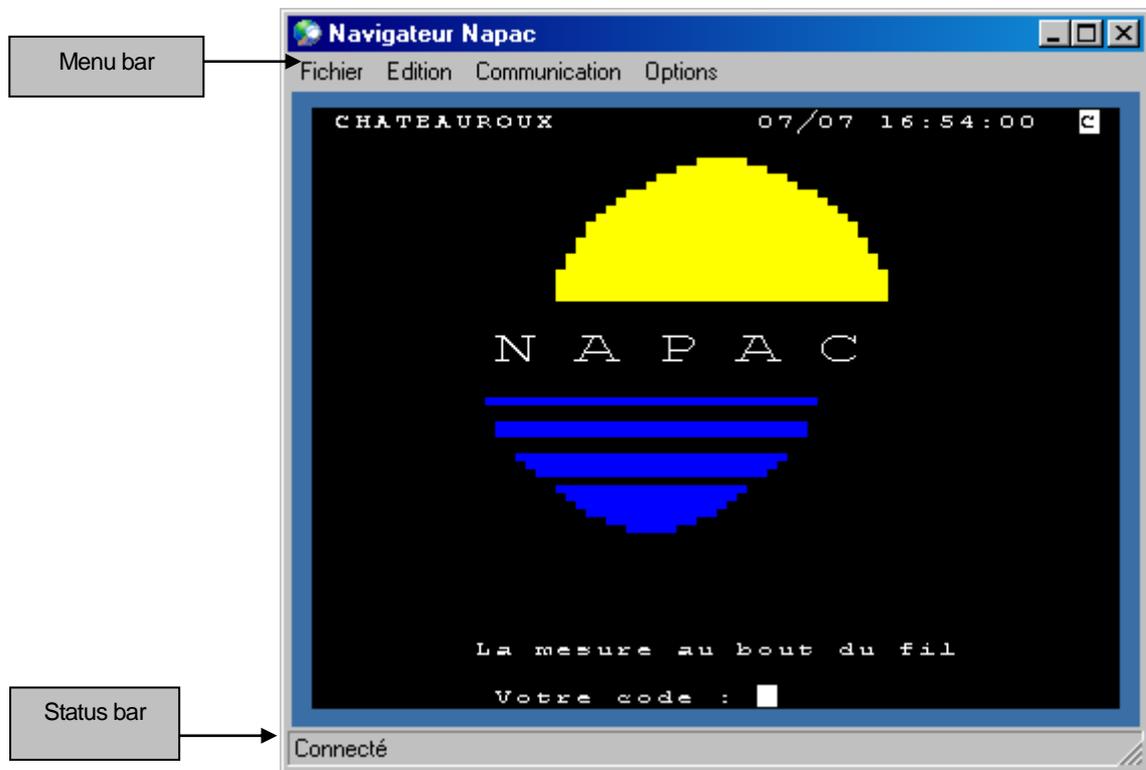
In view mode, only two actions are possible:

- Immediate starting of the action selected
- Stopping of the action selected

6.9 MINITEL / WEB BROWSER

The KERWIN browser allows you to dialogue with a local unit in Minitel or Web mode. The dialogue mode depends on the type of local unit.

6.9.1 Minitel mode



- The specific <SUITE>, <RETOUR>, <SOMMAIRE> keys are emulated by keys on the PC's keyboard. A Minitel keyboard can also be accessed to allow use of the mouse.

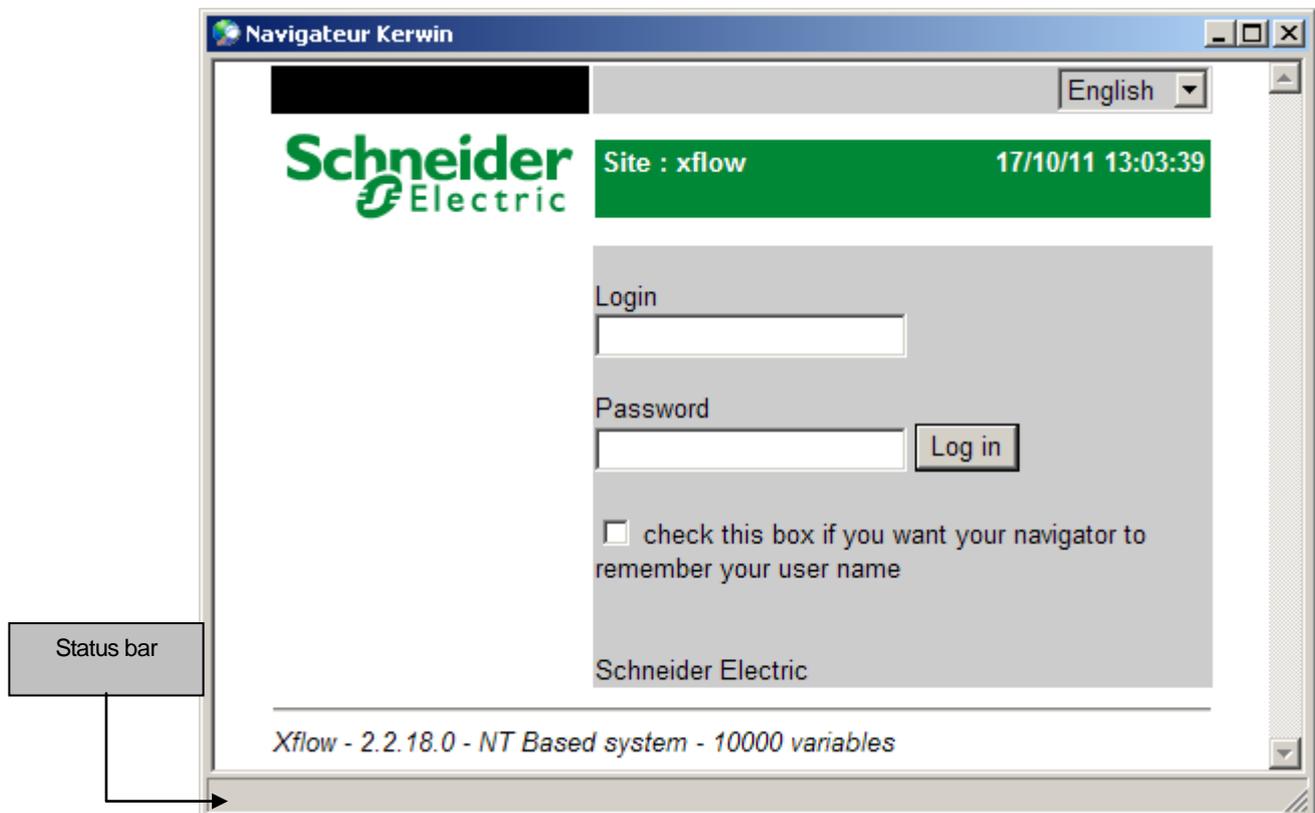
Minitel key	PC keyboard	Minitel key	PC keyboard
Connexion-Fin	F9	Envoi	F2
Sommaire	Home (⌵)	TS+Sommaire	F5
Annulation	Delete	TS+Suite	F8
Retour	Up (↑)	TS+Retour	F7
Répétition	F3	TS+Guide	F6
Guide	F1	Gauche	Left (←)
Correction	Backspace	Droite	Right (→)
Suite	Down (↓)		

- The browser allows the colours displayed to be inverted and the display to be forced into black and white.
- It also allows copies to be made in text and bitmap (image), wmf and rtf formats onto Windows' clipboard (retrieval through the "Paste" function available in many Windows software programmes).
- Finally, the screens may be directly printed on the default printer.

### 6.9.2 Web mode

This mode requires the configuring of at least one remote Windows connection and the communication core (cf. Appendices)

The browser automatically goes into Web mode if the local unit called is an Xflow type (iRIO, XLRIO, SLXA, DIVA XA, Phenix / Flowtel).



The browser works in the same way as Internet Explorer, in that the menu is displayed by right-clicking in the Web page's background.

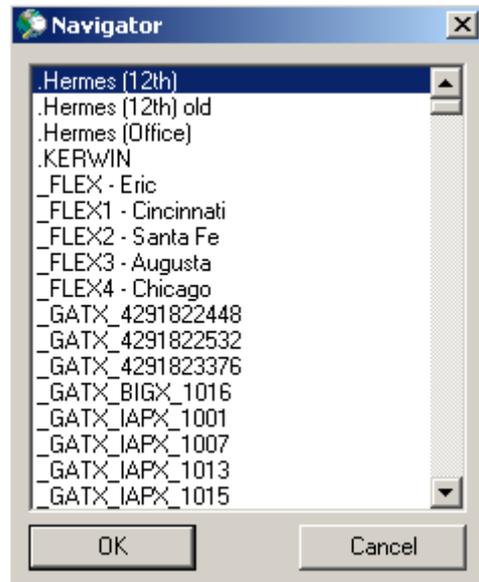
The status bar displays information about the Web page being loaded.

**6.9.3 Use**

**6.9.3.1 Calling a site**

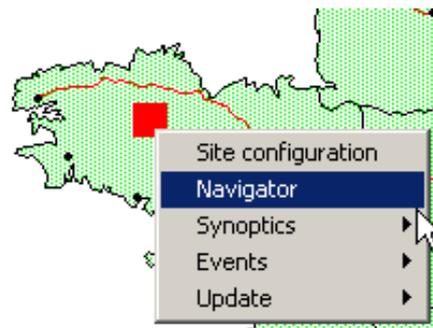
- From the “Call” menu, “Browser” item
- By clicking on the corresponding toolbar icon: 

Select the site to be called in the “Browser” window by double-clicking on the site.



- From a synoptic on which the site to be called is represented

Right-click on the site to be called and select the “Browser” item from the menu displayed.



KERWIN will then display the browser window, providing that a communication port is available. In the case of a local station accessible via the telephone network, KERWIN dials up then connects until the welcome screen is displayed; in the case of a local station accessible locally, connection is immediate.

If communication cannot be established, KERWIN displays a message indicating the cause of the problem:

- Number busy
- No answer
- Modem temporarily unavailable (following previous call failures)
- ...

**6.9.3.1.1 Dialogue in Minitel mode**

Once communication has been established, dialogue takes place in the same way as that implemented from a Minitel; the only difference is in the emulation of the Minitel’s specific keys: <SUITE>, <RETOUR>, <SOMMAIRE>, ...

**6.9.3.1.2 Dialogue in Web mode**

Once communication has been established, dialogue takes place in the same way as that implemented from an Internet explorer. To browse from page to page, click on the hypertext links.

### 6.9.3.2 Functionalities in Minitel mode

#### 6.9.3.2.1 Copying screen shots onto the clipboard

Minitel screen shots can be copied onto the clipboard through the “Copy” command in the Edit menu; the combination of keys <CTRL>+<C> allows direct access to this command without going through the Edit menu.

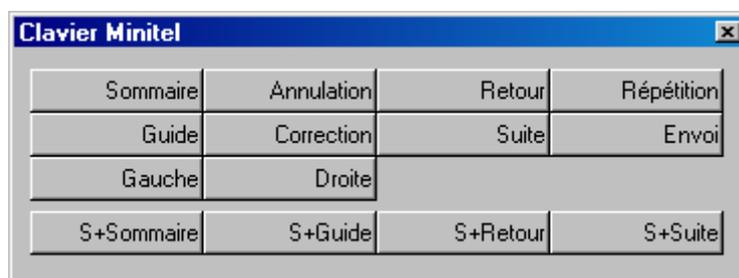
The information copied may then be retrieved from the Windows clipboard using any software with a “Pasting” function.

#### 6.9.3.2.2 Printing screens

The current screen is printed on the default printer through the “Print” command in the File menu; the combination of keys <CTRL>+<P> allows direct access to this command without going through the File menu.

#### 6.9.3.2.3 Using the Minitel keyboard

The Minitel keyboard is displayed through the “Minitel Keyboard” command in the Options menu.



#### 6.9.3.2.4 Managing colours

Colours are selected from the Options menu.

- Inversion: used to invert black and white and modify the other colours; this option is useful for printing as it means that ink can be saved as the screen backgrounds are white,
- Black and White: allows the forcing of black and white displaying.

#### 6.9.3.2.5 Display options

- Choice of whether or not to display the status bar through the “Status bar” command in the Options menu.
- Choice of whether or not to display in frame mode (no title, no menu, no status bar) by pressing the <ESCAPE> key.

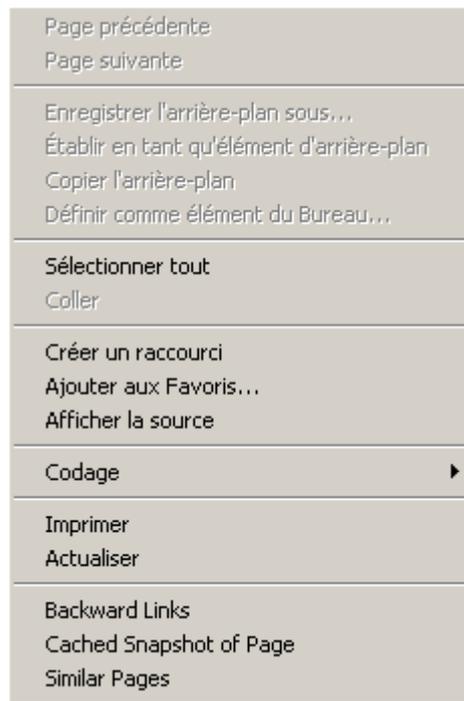
#### 6.9.3.2.6 Stopping communication

A communication can be stopped in 2 ways:

- Through the <CONNEXION-FIN> key, the equivalent PC key or the mouse,
- Through the “End communication” command in the Communications menu.

### 6.9.3.3 Functionalities in Web mode

The operations that are possible in Web mode are carried out from the contextual menu of the page displayed. To display this menu, right-click on the Web page's background:



This menu is same as that presented by Internet Explorer. Amongst other things it can be used to:

- Browse in Web pages with the commands “Previous page” and “Next page”
- Print the page displayed with the “Print” command
- Refresh the page with the “Refresh” command

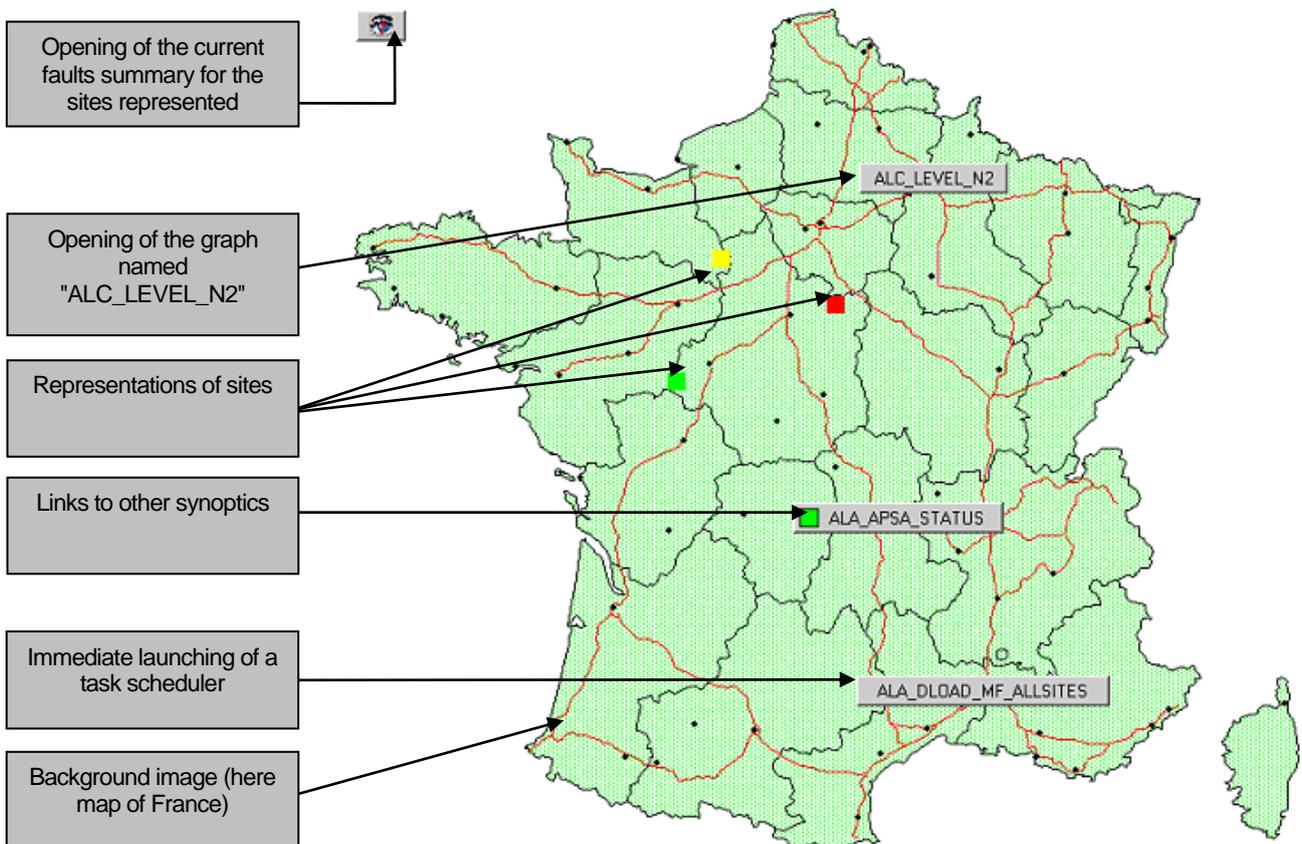
### 6.10 SYNOPTICS – GENERAL VIEW OF THE SITES' STATUSES

KERWIN allows the representing of remotely managed sites on graphic images (photos, geographic maps, etc) known as synoptics. The aim of these synoptics is to provide a general view of the status of the sites and enable faster access (than via the menus) to some of the software's monitoring functions.

These synoptics are defined through names defined in the configuration phase (here France). They are displayed in windows that you can freely move, resize or minimise to icons. A scroll bar allows the displaying of the various parts of each view if the size of its window means that it cannot be shown in its entirety.

The various sites can be positioned anywhere on the synoptics. The adding, copying, moving and deleting procedures are described in the "Parametering" section.

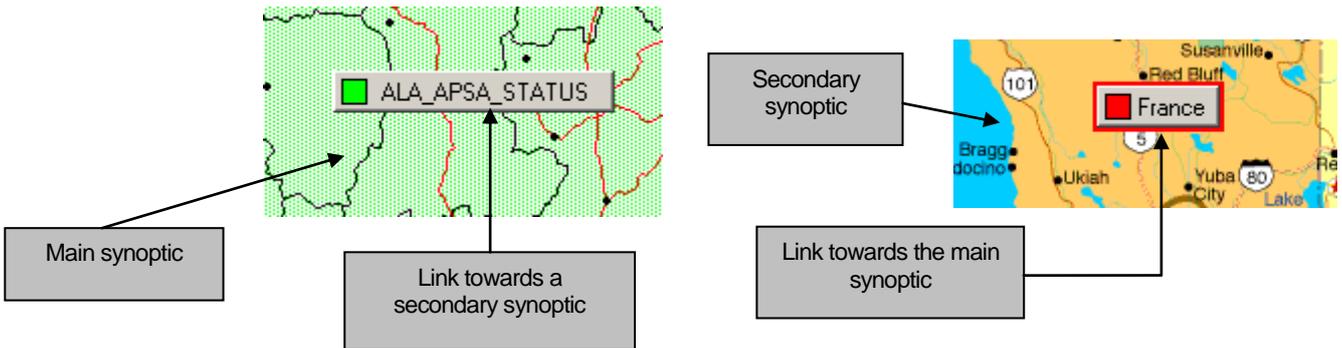
In view mode, site synoptics are presented as below:



**6.10.1 Displaying a synoptic site in the foreground**

Usually, your application comes with a main synoptic, displaying all of your sites, and secondary synoptics offering partial representations by region, application, etc; the names of these secondary synoptics are indicated on the main synoptic by access buttons.

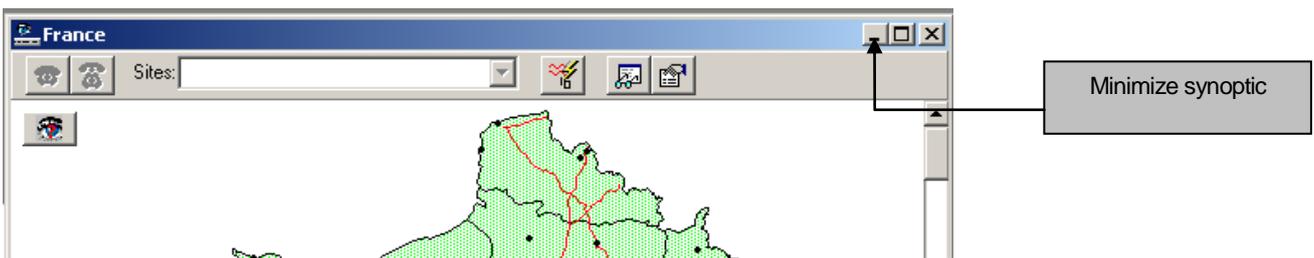
The simplest use consists of constantly displaying the main synoptic in the foreground, and when necessary, accessing the secondary synoptic from their respective link buttons. You can usually return to the main synoptic through a button on each secondary synoptic.



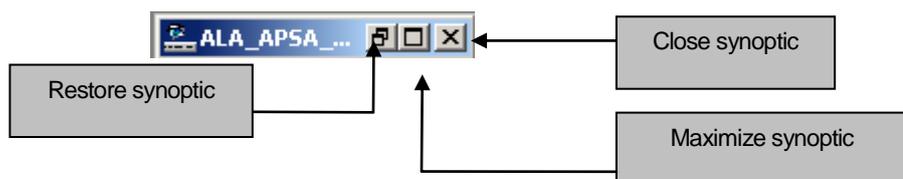
The synoptic to be displayed can also be selected from the pull down list in the toolbar that shows the list of synoptics available. The required synoptic can be displayed in the foreground by simply clicking on it:



A synoptic can be minimised into an icon by clicking on the minimize button in the upper righthand corner of the synoptic's window. The minimised icon is the same for all the synoptics.



KERWIN indicates the name of the corresponding synoptic at the bottom of the icon:



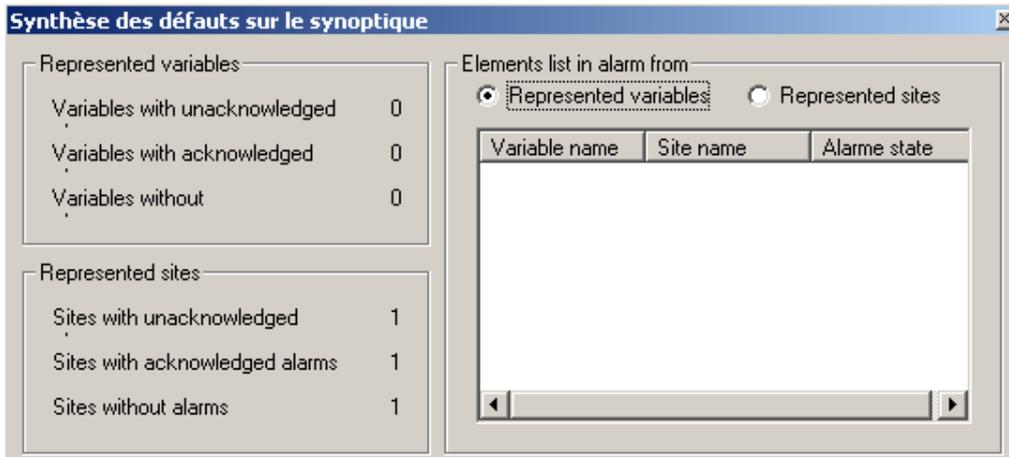
A synoptic previously minimised into an icon can be displayed by double-clicking on the corresponding icon or through the other procedures described above.

**6.10.2 Summary of the active alarms of the sites represented**

Each site is represented by a square whose colour signals the presence of alarms on the site and their activity status:

- ■ Green: no current faults on this site
- ■ Yellow: there are faults on the site but they have all been acknowledged
- ■ Red: there are faults on the site, some of which have not been acknowledged

The summary of the current faults can be accessed by clicking on the  button:

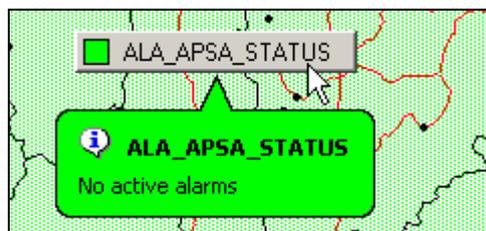


- Summary of the sites represented for which there are faults
- Summary of the current faults site by site.

It is also possible to access this information directly by leaving the mouse pointer on the site concerned:

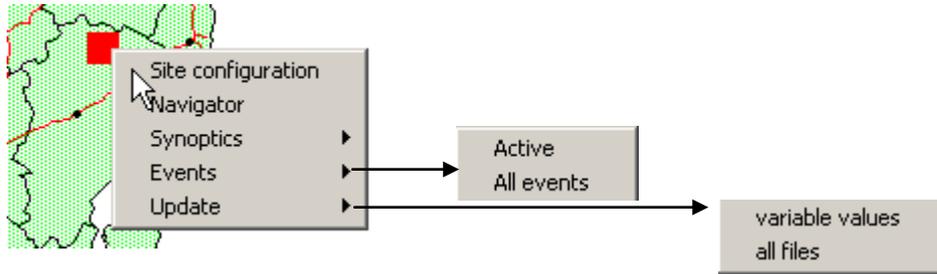


The summary of a synoptic can also be displayed by placing the mouse on the link concerned:



**6.10.3 Access to a site's menu and possible actions**

Right-click on the desired site to display the following menu:



**Site configuration**

Allow you to view and possibly modify the local unit's Site parameters.

**Navigator**

Allow you to make an Internet or Minitel call to the local unit.

**Events**

Allow you to access the local unit's alarms and events for viewing or acknowledgement.

**Update**

Allow you to initiate the retrieval of the local unit's instantaneous values or all its existing files.

**6.10.4 Other possible actions**

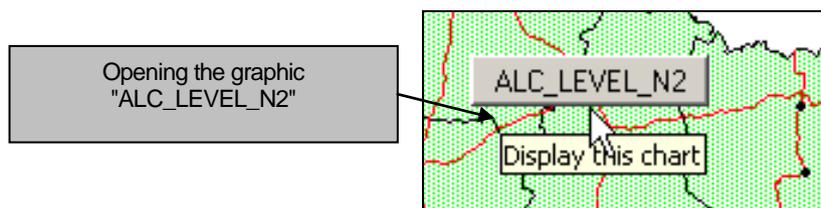
KERWIN allows you to perform two other actions from the synoptic:

- Opening a graph
- Immediate launching of one of the scheduler's actions
- Opening a dashboard

These actions appear in the form of buttons showing the name of the graph to be displayed or of the sequence to be executed. See the "Parametering" section of this manual to find out how to place these buttons on a synoptic.

**6.10.4.1 Opening a graphic**

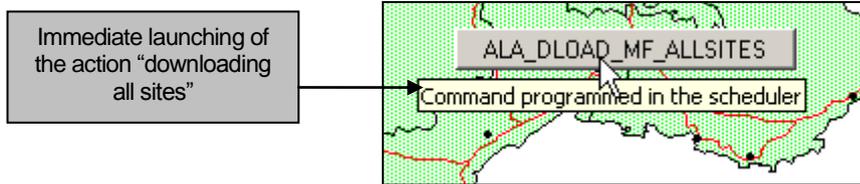
To open a graphic, click on the button showing the name of the graphic.



KERWIN will immediately load the data into the memory and display the corresponding graphic.

**6.10.4.2 Immediate launching of one of the task scheduler's actions**

To launch an action, click on the button showing the name of the action.



KERWIN notifies the scheduler of the request for the immediate execution of the action. For the list of possible actions, see the "[Parametering / Task scheduler](#)" section.

**6.10.4.3 Opening a dashboard**

To open a dashboard, click on the button showing the name of the dashboard.  
KERWIN will immediately load and display the linked dashboard

**6.11 SYNOPTICS – VARIABLE ANIMATION**

**6.11.1 Presentation**

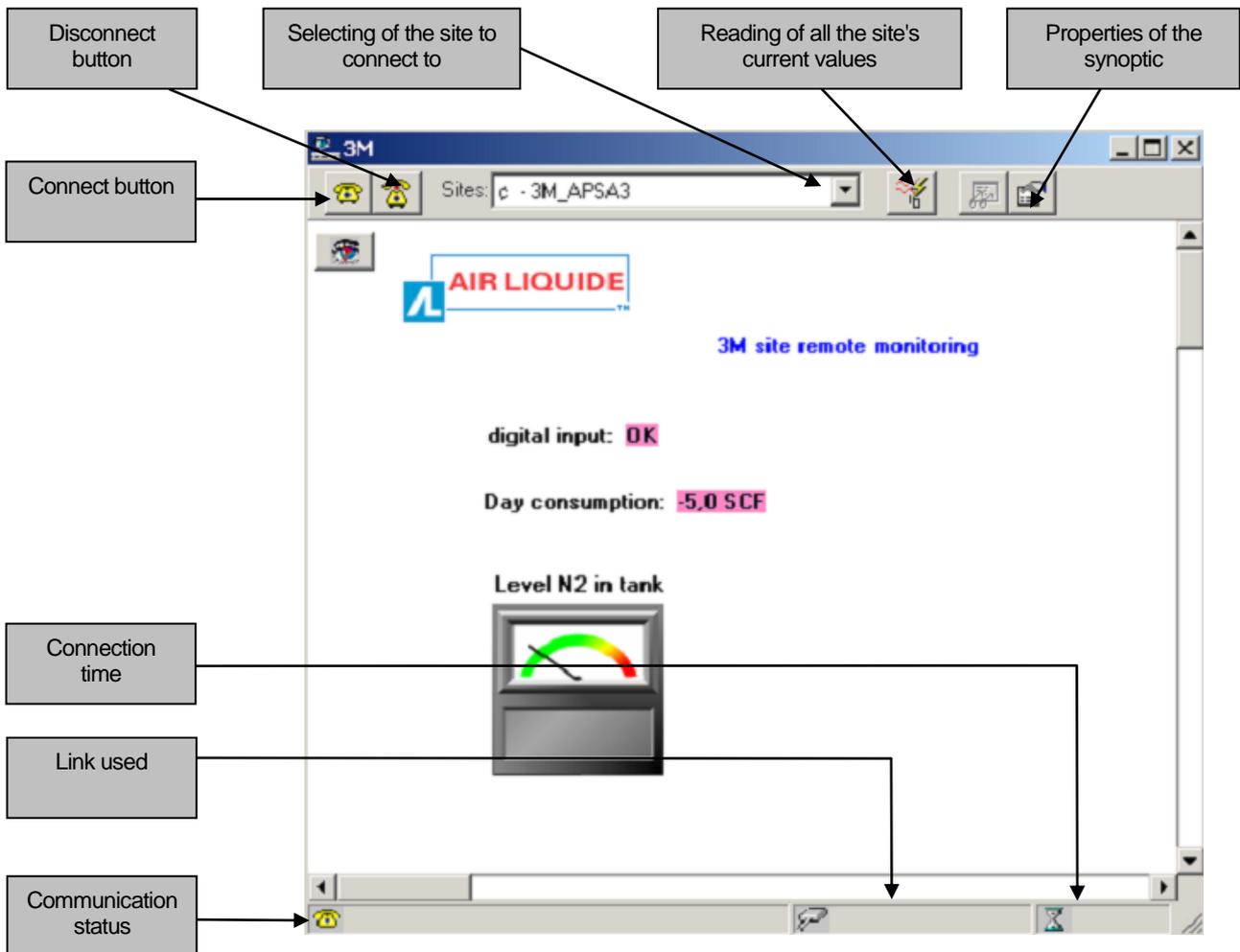
KERWIN's synoptic module allows the creating and animating of graphic images representing the remotely managed sites (buildings, equipment, sensors, etc).

These synoptics can be exploited in communication with the local stations to dynamically display the control variables (On-Off equipment statuses, alarms, tank levels, temperatures, power consumption, etc). It is also possible to perform remote control actions (starting or stopping of a pump, etc) or remote management actions (modifying of a reference value, opening or closing of a valve, and so on).

Off line, synoptics may be used to view the latest known information about the sites.

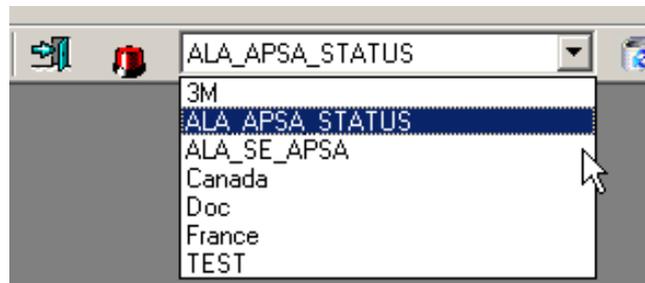
Each synoptic is "multiple site", in other words it may contain variables coming from different sites. You can therefore make simultaneous connections to several sites providing that there are enough communication ports.

Each site may be present in several synoptics. It is therefore possible to concatenate several synoptics together ("switching" function).



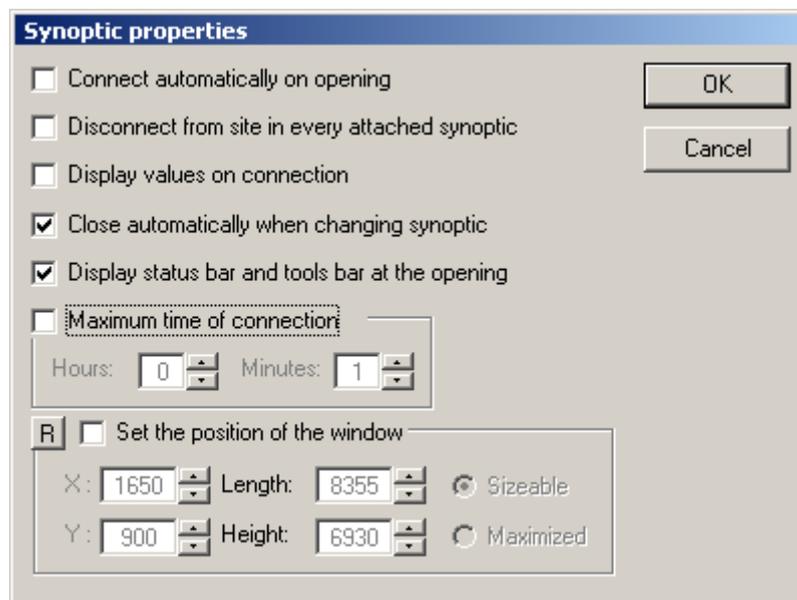
### 6.11.2 Displaying a synoptic

The synoptic to be displayed is selected from the pull down list in the toolbar that shows the list of synoptics available. The synoptic required is displayed in the foreground by simply clicking on it:



### 6.11.3 Properties of the synoptic

Clicking on the  button displays the synoptic property setting dialogue box.



### 6.11.4 Connecting to a site

To continuously refresh the variables displayed on the synoptic, you must connect to the local unit in question. To do this, select the site from the pull down list and click on the  button.

The connection phase may be more or less long depending on the type of physical connection (modem, local, IP). Once the connection has been established, the values will start to be refreshed.

You can simultaneously connect to another site by following the same procedure.

### 6.11.5 Disconnecting from a site

To stop the continuous refreshing of variables you must disconnect from the local unit in question. To do this, select the site from the pull down list and click on the  button.

The disconnection phase may be more or less long depending on the type of physical connection (modem, local, IP). Once disconnection is complete, the values will no longer be refreshed.

### 6.11.6 Reading a site's instantaneous values

You can use a synoptic to request the reading of a site's instantaneous values. To do this, select the site from the list and click on the  button.

If the synoptic is already connected to the site, reading is immediate. If not, connection followed by the reading of the values and disconnection are carried out by the data server.

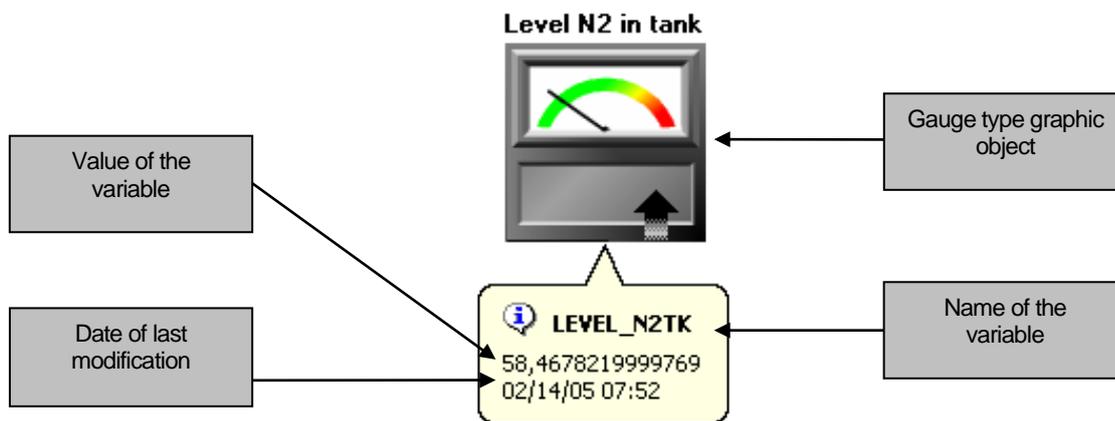
In both cases, all the graphic objects linked to the site are updated on the synoptic. This is therefore another way of regularly updating a synoptic without, however, being permanently connected.

### 6.11.7 Displaying the current value of a gauge

It is possible to regularly display the current value of a gauge or of any graphic object linked to a variable. To do this, place the mouse pointer on the graphic object in question.

After half a second an information bubble will appear showing the name of the variable, its value and the date when the variable was last refreshed (last modification).

After a few seconds the bubble will disappear. To make it reappear, move the mouse and put it back on the graphic object.



### 6.11.8 Remote control and remote management

To perform remote controls from a synoptic, '**digital output**' and/or '**analog output**' variables must be placed on it. The graphic object's property '**Write enable**' must then be set to '**Yes**' (cf. Parametering).

When you pass over a graphic object that is able to be remotely controlled or remotely managed, the mouse cursor will change into a black arrow:  You can then double-click on the object and make the dialogue box appear presenting the value to be written.

The writing request will be effective when you confirm this dialogue box.

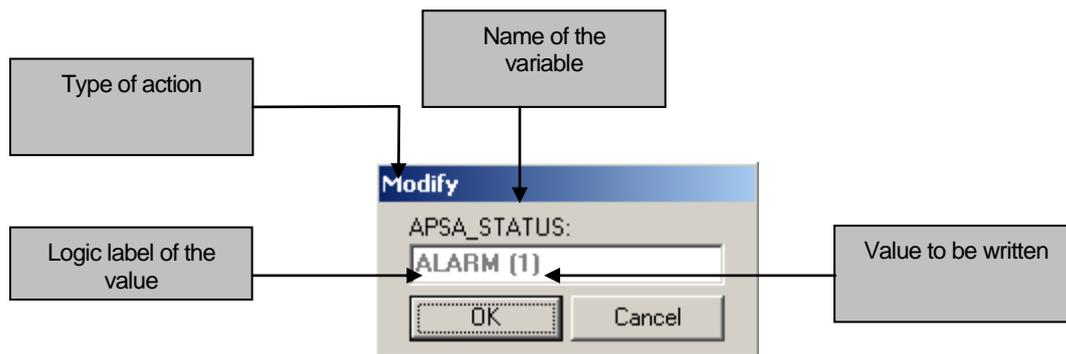
If the synoptic is not connected to the site, the data server will write the value following connection to the local unit. This is followed by rereading of the instantaneous values and disconnection. The synoptic's values are of course also updated.

6.11.8.1 Remote control

The dialogue box will appear after double-clicking. This states the name of the variable to be remote controlled, together with the logic label and the value to be written.

You cannot choose the value to be written. This depends on the parametering that you have carried out in the graphic object's **'Writing type'** property (cf. Parametering):

- 0 - Flip - Flop            The value presented is the opposite of the current value
- 1 - Force to 0            The value presented is always equal to 0 (zero)
- 2 - Force to 1            The value presented is always equal to 1 (one)



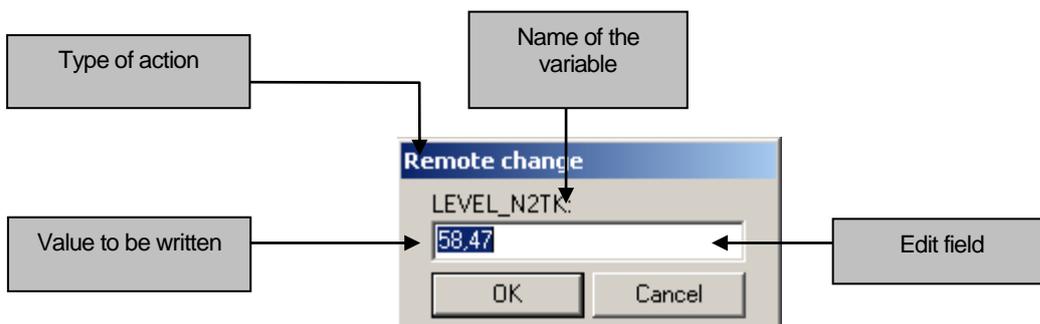
Confirm the writing by clicking the [OK] button. You can also cancel the action by clicking the [Cancel] button.

**Note:** you can associate the writing command with a keyboard key by parametering the graphic object's **'Key code'** property (cf. Parametering). Each time that the key is struck, the remote control is immediately executed with no confirmation request.

6.11.8.2 Remote management

The dialogue box appears by double-clicking. This states the name of the variable to be remotely adjusted and the current value of the variable.

You must enter in the edit field the value that you wish to write in the analogue output:



Confirm the writing by clicking the [OK] button. You can also cancel the action by clicking the [Cancel] button.

## 6.12 ALERTS

### 6.12.1 Presentation

KERWIN's Alerts module is complementary to Alarms and Events; its main function is the transmitting of alarms and events generated by Kerwin to recipients (technicians and managers) in accordance with calendars and the properties of the alarms.

#### 6.12.1.1 The alert function

The alert function managed by a remote management master station consists of the automatic transmitting of events (alarms and signalling) to one or several recipients, for action to be taken or simply for information purposes; these may be events transmitted by local stations (technical alarms detected on the sites) and events processed or detected directly by the master station (cyclical call faults, local alarms, etc).

The selecting of the recipients to be alerted and of the procedures may vary:

- According to the type of event and the technicians' expertise,
- According to the time of day (working hours, outside working hours, etc),
- According to the time of year, in line with the company's alert scheduling.

The transmission time may also vary according to the seriousness of the events: immediate or deferred alert.

Finally, the alerting method may vary according to need and the time: local (PC's buzzer) or remote (telephone, siren or remote indicator light) alert.

#### 6.12.1.2 The possibilities offered by the module

KERWIN's Alert module offers the following possibilities:

- Discriminating and adapting of the alert procedure freely configurable according to various criteria: geographic sectors, type and degree of seriousness of events, time of day and year, etc.
- Telephone alert on various media: SMS (via GSM modem or Minitel server), first generation pagers (Tatoo, Alphapage, etc), fixed or mobile telephone (speech synthesis and SMS), another KERWIN station (secondary station of an office or hub), MC10 unit, remote monitoring PC (PC TEXT protocol), fax, email, or any TAP compatible receiver
- Multiple distribution (transmitting of the same event to several recipients)
- Backup between recipients (on call or acknowledgement failures)
- Local (PC keyboard, Web interface) or remote (Minitel, DTMF codes, SMS, email) acknowledgement function; time and number of programmable attempts
- No particular limits on the number of recipients, the number of discrimination criteria, etc; it is also possible to define several alert calendars to take into account the differences in organisation between the company's various departments.

### 6.12.1.3 General operating principle

The process implemented by KERWIN's Alert module consists of determining **Who to alert, When and Why**

#### 6.12.1.3.1 Who to alert?

This means identifying the recipients of events.

These are declared in "Call route"; several recipients may be associated in "Call procedures" allowing multiple distribution (e.g. manager and service provider) or the implementation of backup (alert teams).

#### 6.12.1.3.2 When?

This relates to the calendar allowing the time of year and type of period (working hours, outside working hours, etc) to be identified at any time.

Depending on the time of year, various recipients may be concerned (e.g. management of rotating teams); the procedure to be implemented may also differ according to the type of period (e.g. local alert during working hours, remote alert outside working hours, deferred alerted outside working hours for minor alarms, etc).

This calendar is defined in KERWIN through a "Yearly schedules" that is freely configurable using the "Weekly schedules" and "Daily schedules", which define the standard weeks and days for the year.

#### 6.12.1.3.3 Why?

This involves identifying each event according to the various discrimination criteria.

These criteria may be of different kinds: geographical (e.g. Southern and Northern sectors), equipment types (a building's lift and heating system), levels of seriousness, etc. The criteria chosen will allow the determining of the recipients concerned, the level of urgency of the action required, etc.

These criteria are associated with the Call programmes and defined through a selection procedure known as "Routing criteria" similar to that used to view Events module listing windows.

KERWIN's "Call programmes" allow the complete describing of this process, associating alert procedures (*Who to alert*) and a yearly programme (*When to alert*) with each set of criteria (*Why alert*).

### 6.12.2 Operating of alerts

#### 6.12.2.1 Alert process

When a new event appears, KERWIN tries to contact the 1st recipient concerned, if the latter is not subject to a temporary or permanent call ban following previous failures (see Call failures and acknowledgement failures).

If communication is successfully established with the recipient, depending on the recipient's configuration (see *Time before acknowledgement* parameter) the following actions may take place:

- Automatic acknowledgement,
- Waiting for acknowledgement for a set time.

If acknowledgement is performed, the alert towards this recipient is deactivated.

Otherwise, depending on the number of authorised attempts (see "Max ack. attempts" parameter), KERWIN may either call the recipient back, or move on to the 1st backup recipient available.

Any recipient that fails to acknowledge when all the attempts have been made is given "Acknowledgement fault" status; if all the recipients concerned by the event fail to acknowledge, the procedure is recommenced with the 1st recipient ("loopback").

If it has not been possible to successfully establish communication, KERWIN makes renewed attempts every 2 minutes until the maximum call failure is reached.

The 1st backup recipient available is only contacted if the recipient has "Call fault" status: maximum number of attempts reached.

As with acknowledgement failures, the procedure is recommenced if all the recipients fail to receive calls.

**Remark:** If a recipient that has call fault or acknowledgement fault status is the only recipient available:

- The next time interval is waited before doing a new call.

### 6.12.2.2 Acknowledgement of alarms

The alert procedure may be secured by programming a "manual" alarm acknowledgement function on KERWIN; this acknowledgement must be carried out by an operator after receiving an alert, within a time that may be set recipient by recipient.

#### 6.12.2.2.1 Operating

An acknowledgement function may be programmed for one of the alerts' recipients by giving a value other than zero to the *Acknowledgement delay* parameter for the recipient; the *Max ack. attempts* parameter must also be defined (see Configuration, Call routes).

If the "*Acknowledgement delay*" value is different from 0:

- KERWIN waits, after the alerting of the recipient on the appearance of a critical alarm, for the "manual" acknowledging of the alarm within the time set.
  
- This acknowledgement operation may take place via Minitel, telephone (DTMF codes), directly on the PC keyboard, via the Web (Kerweb), by return of SMS, or by return of email; it is protected by the password and the access level assigned to the recipient (as a KERWIN user) that allows his identifying and authorisation so that he can acknowledge the alarms relating to him. Alarm acknowledgement deactivates the recipient's alert.
  
- If acknowledgement does not occur within the time set, depending on the case, KERWIN may:
  6. Call the recipient back if *Max ack. attempts* is greater than 1 or if no backup recipients are available,
  
  7. Move on to a backup recipient if the *Max ack. attempts* has been reached; this backup recipient must be defined in the alert procedure used (see Call procedures).

If the "*Acknowledgement delay*" value is equal to 0:

- The recipient's alert is deactivated once the telephone call and the transmission of messages have taken place correctly,
  
- The alarms are automatically acknowledged.

Each acknowledgement operation is time-stamped and recorded in KERWIN's event history, which allows later checking that the alert procedures have taken place correctly (see "Events").

#### 6.12.2.2.2 How to acknowledge alarms

See "Actions on events" in "Event form".

### 6.12.2.3 Forced deactivation of alarms

An alarm's manual deactivation procedure allows the forced stopping of the alert if the disappearance of the current fault is not to be transmitted or will be transmitted later (reported fault).

See "Actions on events" in "Event forms".

### 6.12.3 Call failures and acknowledgement failures

#### 6.12.3.1 Definition

A recipient has call fault status if, on its last attempt, KERWIN has not been able to establish communication with the recipient or transmit its messages.

There are 7 possible causes of failure:

- No dial tone: non-access to the network making it impossible to dial the call number,
- Very long routing after dialling of the number making switching on the recipient's line impossible,
- Station busy: recipient already in communication,
- No response: recipient absent,
- "Invalid" call: picking up by the recipient not followed by a connection; this failure scenario is usually due to incorrect programming of the number (wrong figures),
- Hanging up: hanging up mid-communication,
- Transmission problem: failure to transmit messages.

A recipient has acknowledgement failure status if, when messages have been transmitted to the recipient, the latter does not acknowledge the alarm within the acknowledgement time programmed for the recipient.

#### 6.12.3.2 Behaviour of KERWIN on call failure

The number of unsuccessful calls is limited by the parameter "max calling attempts" which is defined for each recipient; if this number is reached KERWIN considers the recipient to be in "Call fault".

KERWIN's behaviour on call failure is the following:

- Increment the call counter
- If another attempt is possible :
  8. The callback of the recipient is 2 minutes delayed.
- If a new attempt is not possible :
  9. The recipient moves to "Call fault"
  10. The recipient is forbidden to call for the time specified by the "*Retry delay*"
  11. The counter is reset.

A recipient who has reached the maximum number of failures is considered to have "Call fault" status; KERWIN's behaviour on a call fault differs according to the alert procedures defined (see Call procedures):

- Waiting the end of the "*Retry delay*", then callback the recipient if there is no other recipient to be contacted
- Moving on to a backup recipient, if such exists
- Calling of another recipient possibly defined in the procedure (multiple distributions) then returning to this recipient, if there are no backup recipients.

**Note:** Following a failure other than an Invalid call, during the waiting time, KERWIN may call another "active" number (in the same procedure or in another procedure). If the failed number has been called within the context of a procedure including several recipients with multiple distribution, KERWIN will therefore call another recipient then return to the first recipient; but note that if the recipient has been called as part of a procedure with backup, KERWIN will only move on to the backup recipient if, following the failure, the number is given "Fault" status.

### 6.12.3.3 Behaviour of KERWIN on acknowledgement failure

The number of successive acknowledgement failures is limited by the *Max ack.attempts* parameter defined for each recipient; if this number is reached, KERWIN considers the recipient to have "Acknowledgement fault" status and bans calling for a time defined by the *Retry delay after transmission failure* parameter, and reset to zero the attempts counter.

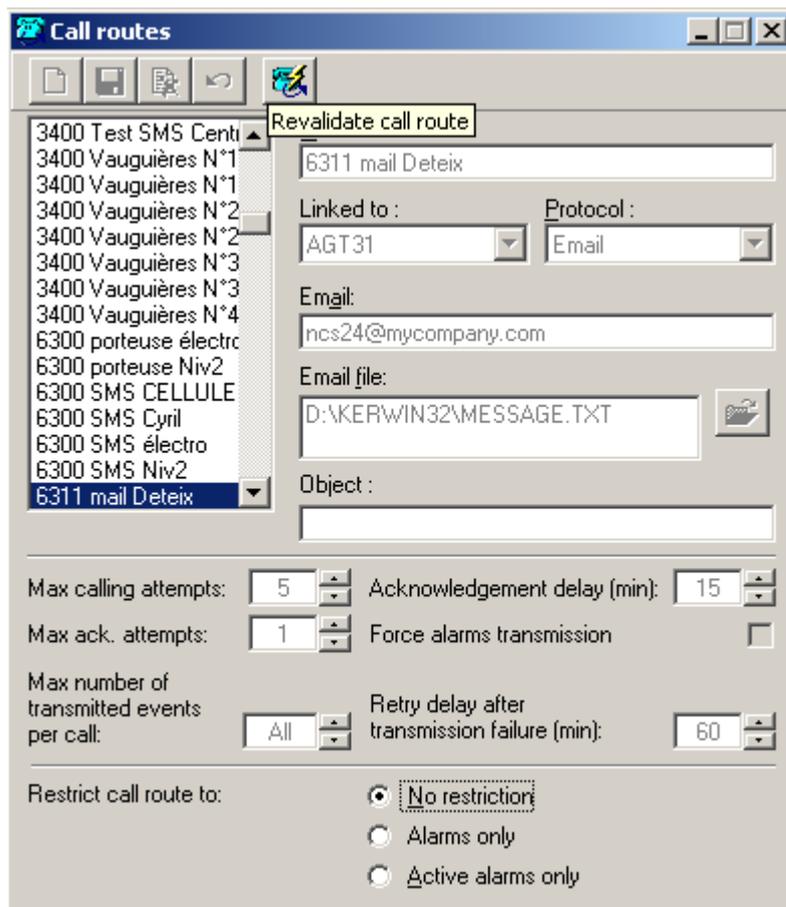
KERWIN's behaviour on an acknowledgement fault differs according to the call procedure defined (see Call procedures):

- Moving on to a backup recipient, if such exists
- Calling of another recipient possibly defined in the procedure (multiple distribution) then returning to the first recipient, if there are no backup recipients
- Immediate calling back of the recipient (no other recipients to be contacted).

### 6.12.3.4 Revalidating an alert recipient

An alert recipient who has reached the maximum number of call failures or acknowledgement failures will be devalidated for a time defined by the *Retry delay after transmission failure* parameter. The recipient may be revalidated manually, however.

To revalidate a recipient you must first of all display the Call routes parametering form via the "Configuration / Alerts" menu, "Call routes" item; then click on the  button. The date of the next call will then be reset to the present date.



**Call routes**

Revalidate call route

6311 mail Deteix

Linked to : AGT31 Protocol : Email

Email : ncs24@mycompany.com

Email file : D:\KERWIN32\MESSAGE.TXT

Object :

Max calling attempts: 5 Acknowledgement delay (min): 15

Max ack. attempts: 1 Force alarms transmission

Max number of transmitted events per call: All Retry delay after transmission failure (min): 60

Restrict call route to:

No restriction

Alarms only

Active alarms only

#### **6.12.4 Content of the messages transmitted**

The content of the messages transmitted differs according to the recipient's protocol:

##### **6.12.4.1 Digital radio pager**

Telephone number of the local station

##### **6.12.4.2 Text radio pager, TAP and SMS (GSM, Netsize, Orange ...)**

Character strings containing different fields separated by the SPACE character; the number of fields transmitted depends on the receiver's capacity in terms of the number of characters per message. The default format is as follows:

- Telephone number of the local station (10 characters)
- Name of the site (25 characters)
- Name of the alarm variable (6 characters)
- Type of alarm (8 characters): appearance or disappearance of alarm (Faulty, Normal)
- Date and time of the alarm (19 characters)
- Alarm value (10 characters)
- ... if other alarms are present

This format may be modified in KERWIN's configuration file (see Appendices)

##### **6.12.4.3 Minitel 12, MC10, KERWIN**

Identifying of the site and of all the events with indicating of the appearance dates and times

##### **6.12.4.4 Other Master Stations**

Coding and content of the frames in line with the protocol's specifications; currently the only protocol used is the "PC TEXT" protocol, used in particular by CGC and ELYO master stations

##### **6.12.4.5 Fax**

Possibility of sending FAXes in a non-Western language (Japanese, etc).

##### **6.12.4.6 Email**

Possibility of sending emails in a non-Western language (Japanese, etc)

## 6.12.5 Response to an alert

### 6.12.5.1 Response to an alert on Minitel

The actions that may be carried out on a manual response Minitel when an alert is received are the following:

- Picking up the telephone or pick up via the Minitel (for models that permit this),
- KERWIN then emits interrupted whistles followed by a continuous whistling,
- You must then connect the Minitel using the <CONNEXION-FIN> key; this connection stops the whistling and brings up the welcome screen. The receiver can then be replaced,
- After entering your name and password you will be taken to a menu allowing you to view and acknowledge alarms.

**Note:** Any pick up not followed by the connecting of the Minitel is considered to be an "Invalid call" type call failure; this manipulation error may lead to the barring of the call number (see Call failures).

### 6.12.5.2 Response to an alert on speech synthesis (French only)

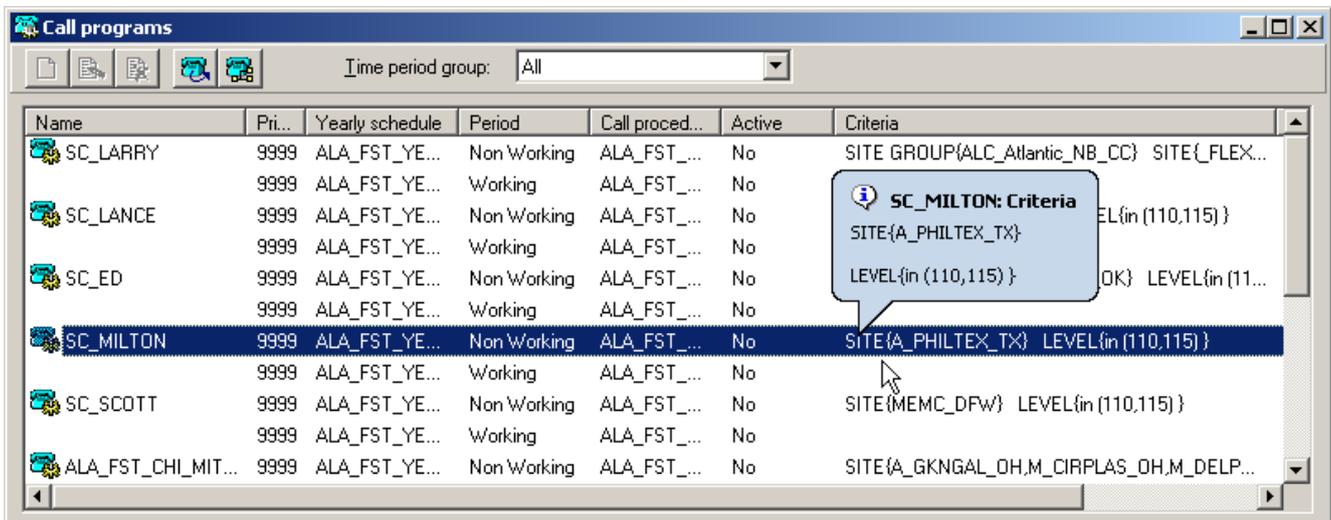
On an alert on a voice type medium, after detecting the picking up by and presence of a human operator, KERWIN sends the welcome message inviting the operator to enter his password.

**Note:** The user connecting must be the user associated with the call route called. Otherwise, KERWIN generates the message "invalid user or password" and after 3 attempts the call is considered to have failed.

## 6.12.6 Displaying the alert criteria

During operation, it is useful to display the alert criteria of a given programme.

To make the information appear, click in the 'criteria' column of the call programme in question. To make the comment disappear, click in another column or on another line or exit the window:



## **6.13 USING REMOTE ACCESSES**

### **6.13.1 General remarks**

The KERWIN application is accessed remotely via Web server (Kerweb available as an option), or Videotex server. Access may take place:

- On the initiative of the caller who must be a KERWIN user declared in the list of users.

In any case, the person must identify himself through his username and access code

The most important functions accessible remotely are access to events, for viewing and acknowledgement, complemented by access to the current values site by site in the case of the Videotex server.

For Web accesses, refer to the Kerweb manual.

### 6.13.2 Videotex server

This functionality is only available with **French language**.

#### 6.13.2.1 Connection

For incoming calls, in other words calls made to KERWIN, the procedure is the following:

- Dialling through the Minitel
- Depending on the Minitel model, you must then press the 'Connexion' key
- Once the letter 'C' is no longer flashing in the upper righthand corner of the screen, you must press 'Répétition' to indicate to KERWIN that it is a Videotex call, as the latter is able to manage different protocols on the same modem; the welcome page will then be displayed on the Minitel's screen.

In the case of an outgoing call (KERWIN calling a user):

- On picking up and detection of the carrier signal, press the Minitel's "Connexion" key, then replace the handset;
- The rest of the procedure is then the same, except that the "Répétition" key does not need to be pressed to indicate to KERWIN the protocol used.

On the welcome page, enter the username and access code in the two fields reserved for this purpose. If a mistake is made, the server will ask you to enter the access code again, allowing you a maximum of three attempts.



### 6.13.2.2 Browsing through the menus

The inputting and browsing rules comply with the Télétel standard used in France Télécom's electronic telephone directory.

You have access to the following Minitel keys as you browse through the various screens or confirm your choices:

Minitel key	Actions
Connexion-Fin	Connection and disconnection
Sommaire	Return to previous menu
Suite	Moving of the cursor from one field to the next, from top to bottom and from left to right
Retour	Opposite of Next
Envoi	Selecting of an item from a Validation menu
Correction	Deleting of the character preceding the cursor
Annulation	Deleting of the character string preceding the cursor
Répétition	Redisplaying of the current screen

In addition to these keys, an item may be chosen from a menu through switching by directly pressing the letter highlighted in the item's title.

Some fields, such as the list of sites in the current value viewing screen, are scrolling list fields used as follows:

- <SPACE> key to move further down the list,
- <P> key to move back up the list.

These scrolling fields also allow you to perform searches based on a filter.

To go into search mode:

- Press <ANNULATION>
- Enter a filter criterion (possibly using the characters '\*' and '#');
- The '?' key then allows you to confirm the filter entered and return the list field to scrolling mode.

Access is then limited to the elements in the list meeting the criterion entered.

To cancel the current filter:

- Press <ANNULATION>
- Then '?'.

Examples: the '\*VARIABLE' criterion selections all the elements containing 'variable', while '#A' allows you to only select the elements whose second letter is 'A'.

There are also action fields similar to a Windows command button represented in the form [command]; to execute the associated command (for example, the acknowledging of an event), press the letter highlighted or place the cursor on the field, then press <ENVOI>.

### 6.13.2.3 Tree structure of the menus

Welcome page, entering of password

\* **C**urrent values

<Espace>/<P>: Scrolling of the list of sectors and the list of sites  
[Refresh] [Deactivate] [Activate]

\* **H**istory files

<Espace>/<P>: Scrolling of the list of sectors and the list of sites  
[Variable selection]  
[Start] [Prev] [Next] [End]

\* **E**vent history

<Espace>/<P>: Scrolling of the event pages  
<SUITE>/<RETOUR>: Selecting of an event  
<ENVOI>: Event details page  
[Start] [Prev] [Next] [End] scrolling from one event to another

\* **C**urrent faults

<Espace>/<P>: Scrolling of the event pages  
<SUITE>/<RETOUR>: Selecting of an event  
<ENVOI>: Event details page  
[Start] [Prev] [Next] [End] scrolling from one event to another

\* **E**vents to be acknowledged

<Espace>/<P>: Scrolling of the event pages  
<SUITE>/<RETOUR>: Selecting of an event  
[Acquit.]: Acknowledging the event selected  
<ENVOI>: Event details page  
[Acknow]: Acknowledging the event  
[Start] [Prev] [Next] [End] scrolling from one event to another

\* **A**lerts

<Espace>/<P>: Scrolling of the list of procedures  
<SUITE>/<RETOUR>: Select of an alert recipient  
[Save]: Save the recipient's modifications  
[Cancel]: Cancel the recipient's modifications

### 6.13.3 Kerweb server

See Kerweb User Manual

**6.13.4 Sending of faxes and emails**

KERWIN allows alarm transmission (alert) by fax or email. It also allows the sending of documents (curves, management charts, etc) by fax and email, in the form of an attachment in PDF format in the case of email. These documents are sent in the same way both for faxes and emails: quite simply by printing a document (event list, curve) on a particular printer. This means that with KERWIN it is possible to transmit by fax or email anything that it is possible to print on a traditional printer, on request or automatically by using the KERWIN sequencer.

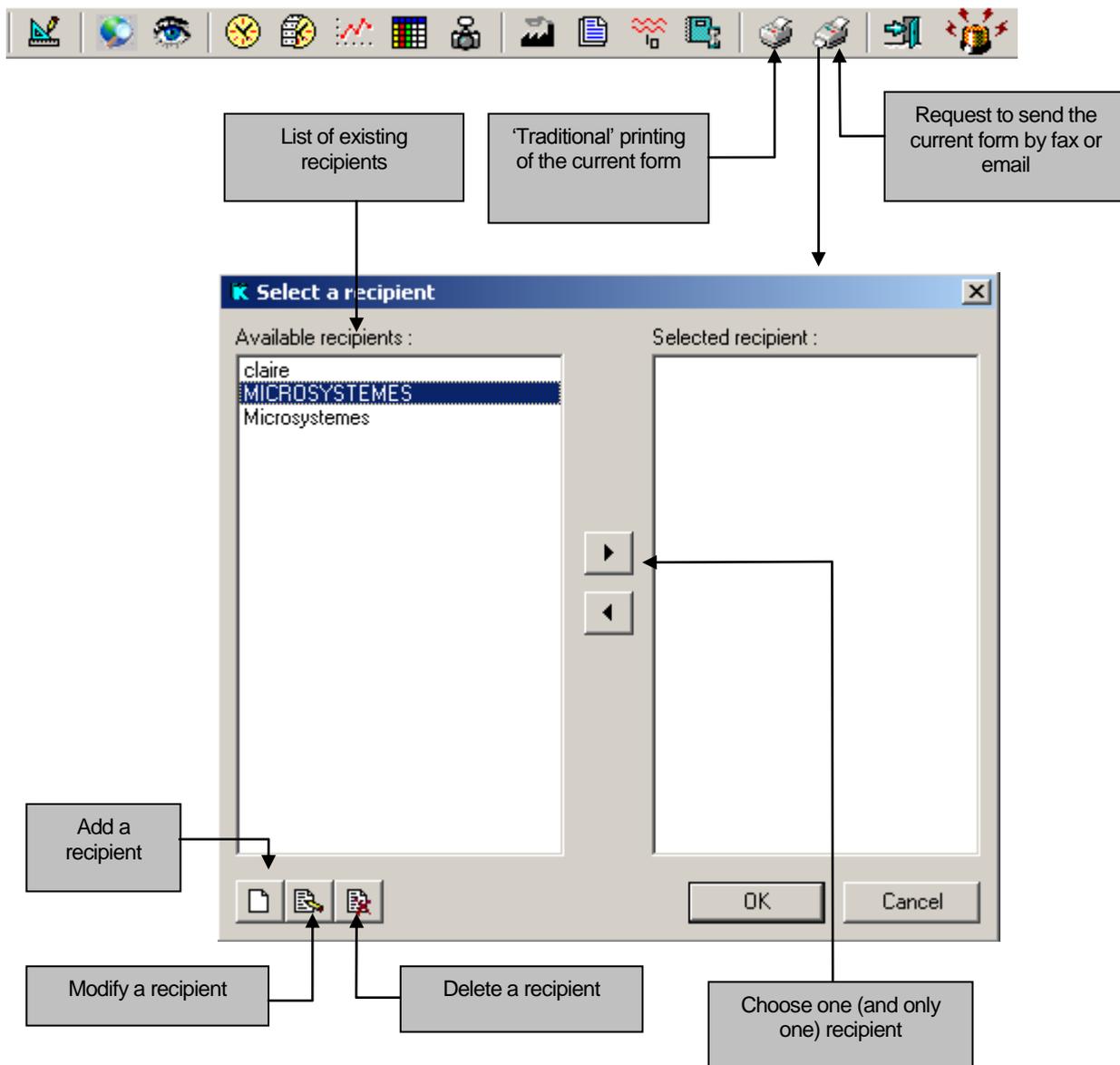
To do this, KERWIN uses two printers, one dedicated to fax (whose default name is 'Black Ice Fax' or Kerwin fax), and the other to emails ('Kerwin E-mail'). The email printer is installed automatically during the installation procedure, while the fax printer must be installed manually.

**Note:**

- The fax printer is not compatible with Windows Seven.
- To be able to print graphs, the printer name must not exceed 31 characters

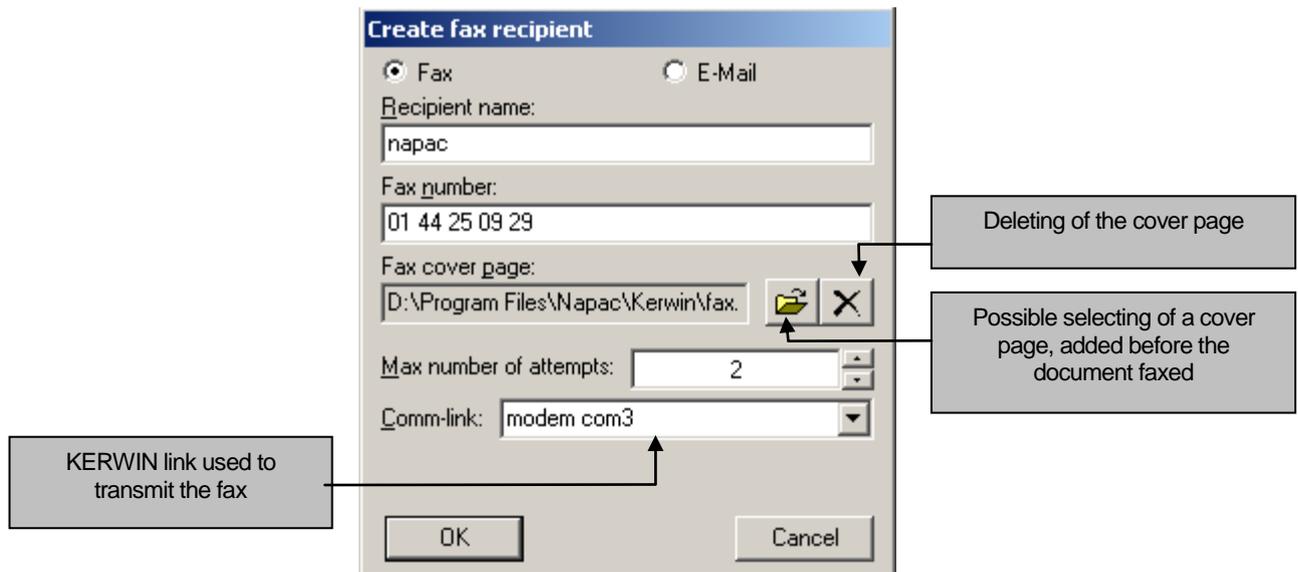
**6.13.4.1 Sending of faxes and emails on request**

A button in the KERWIN toolbar allows you to launch the printing of the current form:



In configuration mode it is possible to add, modify and delete a recipient;

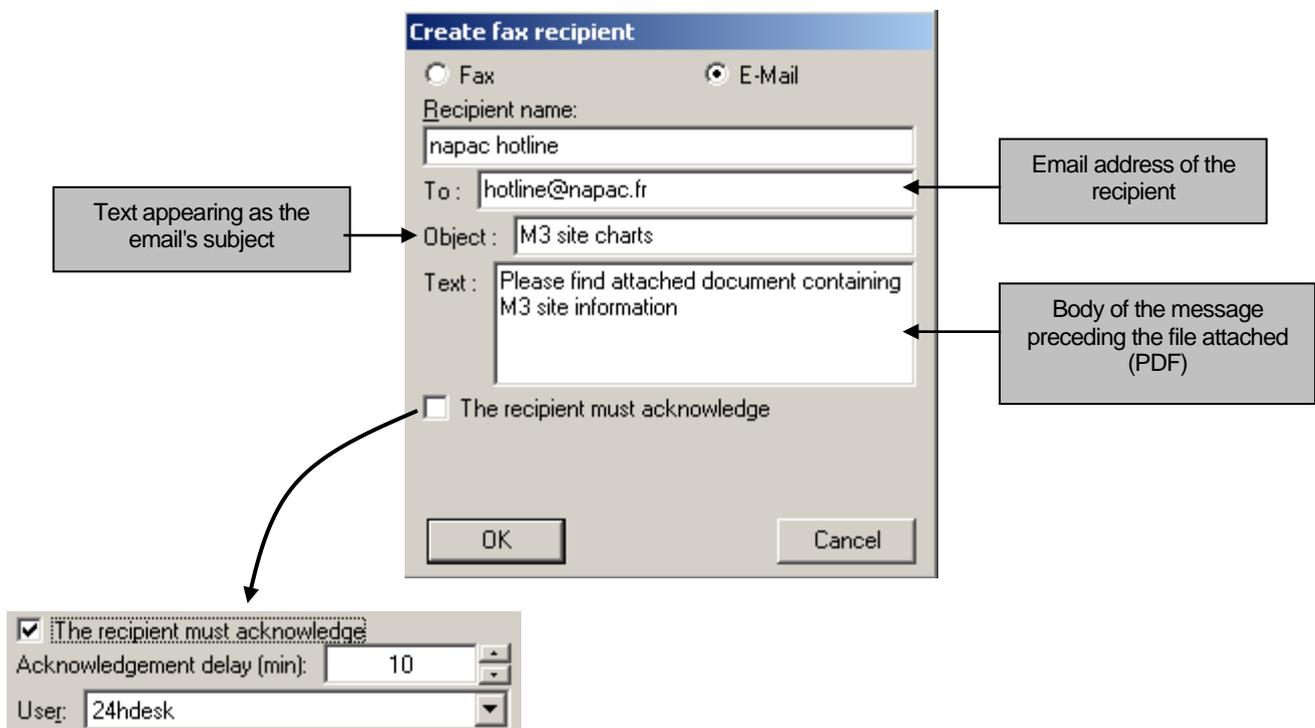
For fax type recipients, the 'add' button brings up the following form:



The cover page is optional; it is a text file allowing the customising of a presentation page sent before the documents to be transmitted. The format is the same as that used to send alarms by fax ([Syntax of the configuration file for alert by email and fax](#)).

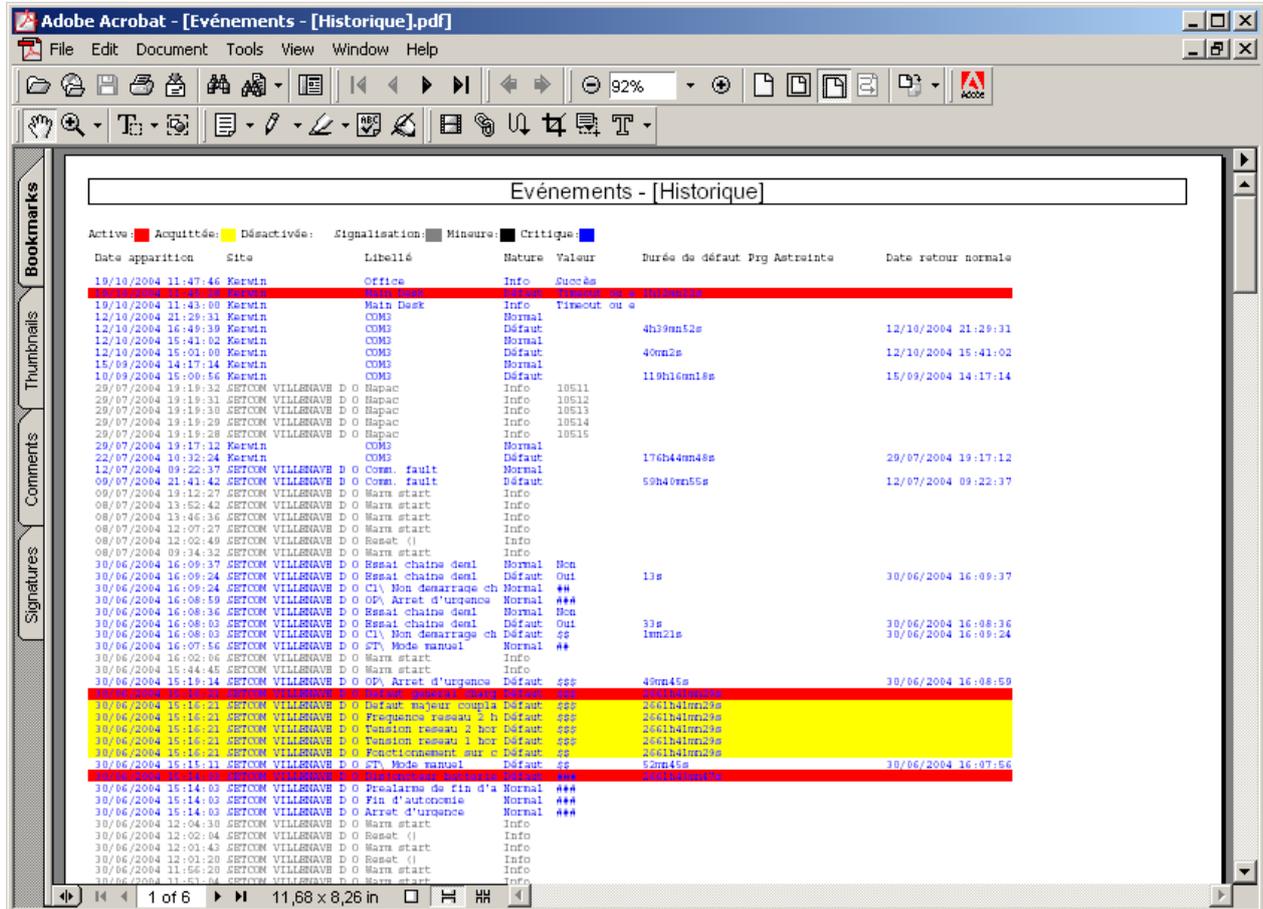
**Note:** The link used must be a serial communication port equipped with a class 2 fax modem.

For email recipients, the 'add' button brings up the following form:



For an email, the recipient may be asked to acknowledge: this means he must return the message as received to KERWIN (email management tool 'reply' function). In this case, the email reading function (POP3) MUST be validated on KERWIN (cf [configuring the communication core, \[pop3\] section](#)). It is also VITAL to define an acknowledgement time and the KERWIN user concerned.

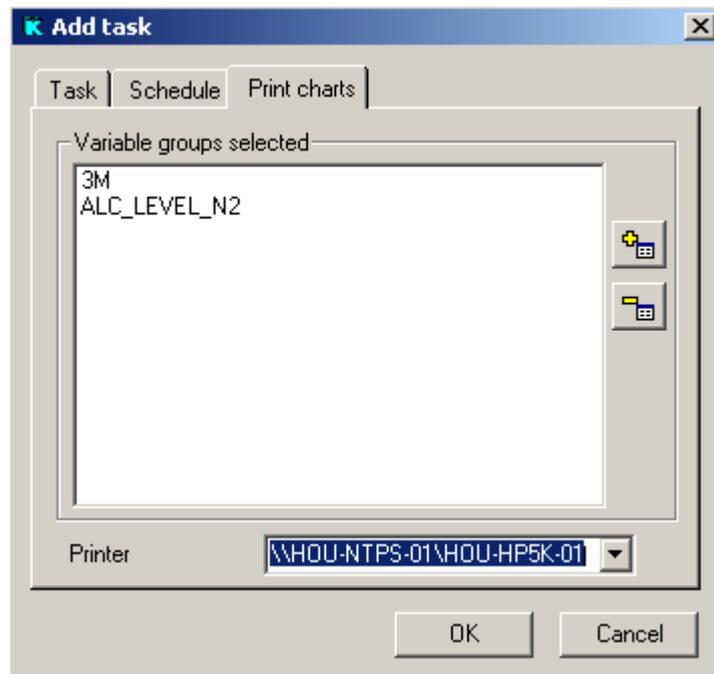
Example of a PDF document generated by KERWIN:



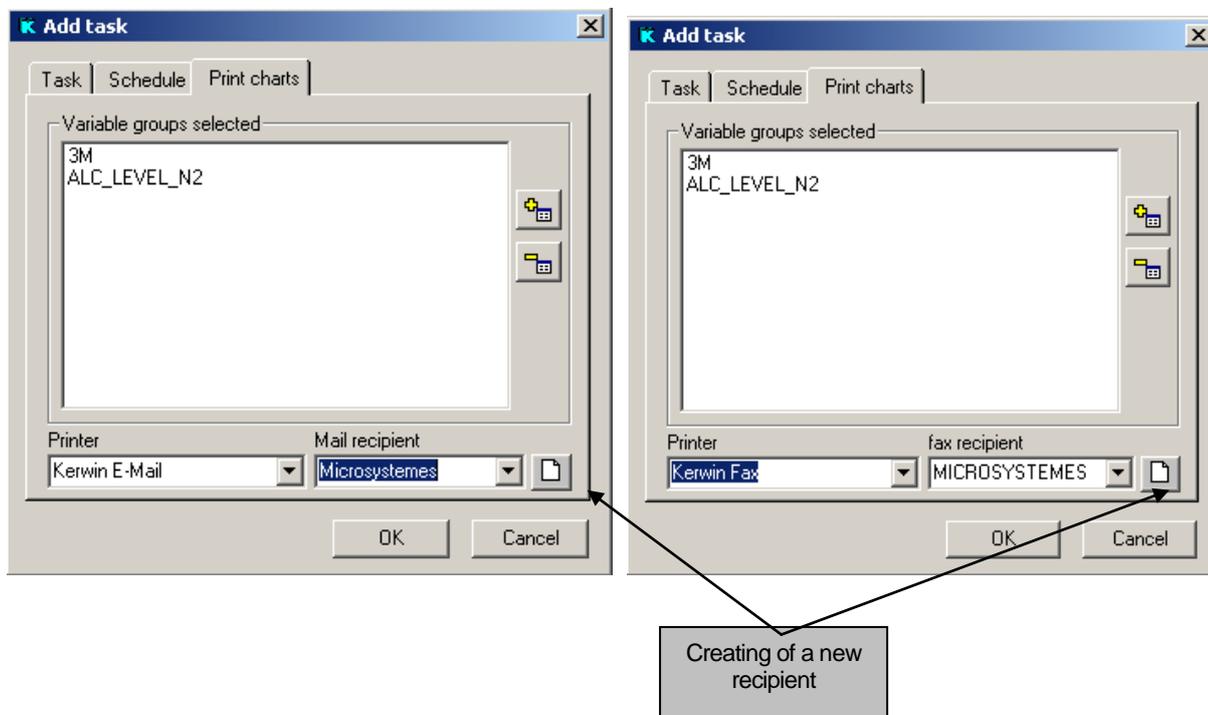
**6.13.4.2 Sending of faxes and emails in automatic mode**

Faxes and emails are sent automatically via the KERWIN task scheduler, for print type actions. Just select the fax ('Black Ice Fax' or Kerwin fax) or email ('Kerwin E-Mail') printer to transmit the documents to the required recipient.

Printing action by the scheduler on a 'standard' printer:



The same printing action by the sequencer to send a fax or email



In this case, a new field appears allowing the selecting of the recipient.

**7 PARAMETERING**

**7.1 DATA SERVER START-UP CONFIGURATION**

The start-up configuration of the Data server is usually defined on the initial installing of KERWIN. On each restart, the Data server reads the configuration from a file.

This file, KERWIN32.CFG, is in text format. You can therefore easily modify it using a text editor. To open the file you can launch the application “KERWIN Configuration” in the “KERWIN32 Tools” programme group; this application opens the file in question with the “Notepad” editor.

The file is made up of sections. The sections have the following format:

```
[name of the section]
;This is a comment
keyword 1=value1
keyword 2=value2
```

We will now take a look at all the sections.

**[kerwin manager]**

The communication ports can be used in ‘incoming’ mode to receive alarms or calls from users, or in ‘outgoing’ mode to make calls to call routes or perform file transfers.

**Beware: an IP communication port (UDP or TCP) cannot be both of the incoming call type (alarm ports) and of the outgoing call type (recup ports). Ports range from COM1 to COM254.**

**alarm ports** = COM2, COM3  
Ports used for incoming calls (alarms or videotex calls).  
These ports must be managed by the communication core.

**recup ports** = COM1, COM2  
Ports used for outgoing calls (alert call or file transfer).  
These ports must be managed by the communication core.

**vocal ports** = VOC1  
Ports used for incoming and outgoing voice calls.  
These ports must be managed by the voice card.

**Access to databases**

**odbc dsn** = kerwin\_sql[,username,password]  
Symbolic name of the database containing KERWIN’s system information. This is the name of an ODBC data source. The ODBC manager can be accessed via the ‘Kerwin32 Tools/Data sources (ODBC)’ menu.

**data dsn** = kerhisto\_sql[,username,password]  
Symbolic name of the database containing the measurement histories retrieved by KERWIN. This is the name of an ODBC data source. The ODBC manager can be accessed via the ‘Kerwin32 Tools/Data sources (ODBC)’ menu.

**Inserting of events – duplicates managed or not managed**

**duplicate** = 0  
 <= 0 On start-up no action is carried out  
 1 On start-up the anti-duplicate filter is destroyed.  
 2 On start-up the event table is deduplicated and an anti-duplicate filter is created.  
 The action is only performed once. Once it has been correctly executed, the keyword takes the value of the code preceded by the – (minus) sign.

**[kerwin manager]**

The number of events received by KERWIN may be considerable. To avoid managing too large a number of events, KERWIN periodically 'cleans' the oldest deactivated events. The latter are transferred from the 'recent' table to the 'past' table. The following keywords are used to manage this transfer.

<b>maxevtnb</b>	= 2000
Maximum number of events to be stored in the 'recent' table	
<b>maxevtnext</b>	= 24/07/2009 00:00:00
Date of the next event transfer	
<b>maxevtperiod</b>	= 1440
Frequency of transfers in minutes (here, once a day)	

**Displaying and saving of information on-the-fly (log).**

**log** = 4|19,5|19,3|16,12|16,8|10,10|6,7|10

Formatting of events:

- Displayed in the on-the-fly zone,
- Printed on an on-the-fly printer,
- Saved in log files.

The format consists of a set of information separated by commas. Each datum is made up of two numbers separated by a vertical bar (accessible by simultaneously pressing the [Alt Gr] and [6] keys).

The first number indicates the type of field; the second indicates the number of characters used to display this field.

If the field is larger than the specified size, it is truncated to this size and the last 3 characters are replaced by 3 dots. If, on the contrary, it is smaller, it is padded with spaces.

If the specified size is 0, the field is displayed as it is.

The possible types of field are the following:

Type of field	Description
1	Site number
2	Sector
3	Site name
4	Appearance date
5	Reception date
6	Acknowledgement date
7	Event value
8	Event severity
9	Event type
10	Event nature

Type of field	Description
11	Event status
12	Variable name
13	Return to normal date
14	Variable class
15	Alarm duration
16	Site phone number or IP address
43	Variable label transmitted
84	Event level
111	Event class
112	Alarm type number sent by the site

**log device** = LPT1

Port (parallel or serial) to which the 'on-the-fly' printer is connected.

**log path** = C:\kerwin32\log\

Access path to the folder where the log files are saved whose names, 'LOGYYDDD.LOG', are made up of the year (YY) followed by the day of the year (DDD). This folder is not automatically created by the Data server; in the event of modification it must be created manually.

**[kerwin manager]**

## Sending and receiving of emails

**mail adr** = kerwin.email@mycompany.com

'From' address indicated in an email sent by KERWIN

**mail path** = C:\kerwin32\mail\

Access path to the folders where the incoming emails and SMS' and outgoing emails are saved. If there is no such folder, it is automatically created by the data server. For the parametering of the access to the SMTP and POP3 server see [Parametering/Configuring the communication core](#).

## Behaviour of the Data server on the automatic configuring of a site

**flovarname** = 1 (possible values: 0 or 1)

For the value 1, the Data server creates the variables using as the label displayed the **name** found in the table of variables. For the value 0, the Data server uses the **comment**.

**updatevarname** = 1 (possible values: 0 or 1)

For the value 1, the Data server completely updates the automatically configured site (labels transmitted, labels displayed and labels of units). For the value 0, only the labels transmitted are updated.

## Behaviour of the Data server on an incoming call

**retrotbc** = 1

If the value of this keyword is at 1, the Data server takes over at the end of an incoming call and reads the site's instantaneous values. This parameter is required if you want to launch other actions on an incoming call using the sequencer.

## Management of the ports on call alert

**nbofminsbetweeninits** = 120

Time in minutes after which a communication port on call alert will be reset if it has not received any calls. The default value is 120 minutes.

## Management of the of time setting of the local units

**timediff** = 5 (possible values between 0 and 60 minutes)

Maximum drift time of the local unit beyond which KERWIN will set the time. Only works for sites with the time setting ticked

## Management of the alarm and measurement files

**alarm path** = C:\kerwin32\alarm\

Access path to the folder where the Communication core copies the event files that need to be processed by the Data server. This folder is not automatically created by the Data server; in the event of modification it must be created manually.

**pvtfile** = C:\kerwin32\file\

Access path to the folder where the Communication core copies the measurement files that need to be processed by the Data server. This folder is not created automatically by the Data server; in the event of modification it must be created manually.

**Note:** the value of this keyword must be consistent with that in the kercom.ini file that is used to launch the communication core on start-up.

## Management of the binary configuration files if the local units

**config path** = C:\kerwin32\config\

Path to the folder where the data server stores the binary configuration files from the local units. This folder is created automatically by the data server

**[kerwin manager]**

Management of archiving and saves. Allows the configurer to indicate where the databases will be copied on saving (backup) or archiving (saving then purging). These paths may of course indicate a folder shared on the network.

**sauvegarde path** = C:\kerwin32\save\

Access path to the folder where the Data server performs database backup saves. This folder is not created automatically by the Data server; in the event of modification, it must be created manually.

**archivage path** = C:\kerwin32\archives\

Access path to the folder where the Data server performs database backup saves. This folder is not created automatically by the Data server; in the event of modification it must be created manually.

Option of using Kerwin in passive mode

**passive** = 0 (possible values: 0 or 1)

With this option KERWIN acts as a data source for KERWEB. The data server does nothing.

Option of cyclical calls automatic validation

**autoCC** = 0 (possible values: 0 ou 1)

With this option KERWIN enable cyclical call management as soon as a cyclical call is received on the site.

Time after which detection of cyclical calls defaults is started.

**startCC** = 15 (time in seconds)

This value is the time while detection of cyclical calls defaults is inhibited after the data server has been start.

Management of the Xflow alarm cyclical call

**specCC** = 0 (possible values: 0 ou 1)

In this mode (1) KERWIN does not insert the "cyclical call" events wich are routed, but sets the "cyclical call" date of the site.

Management of logical data from local units MUC5 TBC.

**InverseTbcLog** = 1 (possible values: 0 ou 1)

If the value is 1, the data server will reverse the logical data from local units TBC MUC5.

Forcing a end of frame timeout.

**eof** = 200 (in ms)

This end of frame timeout is transmitted to the communication kernel for initializing the connection.

Maintenance management databases

**MaxMainteDur** = 30 (possible values between 1 and 120 minutes)

After this time, the maintenance process is killed, even if not finished.

Behaviour of the Data server when writing values on xflow RTU

**Immediate\_read\_after\_write** = 0 (possible values: 0 ou 1)

Activate (= 1) or deactivate (= 0) immediate read of updated values on a Xflow before reading instant values from the RTU.

**[alarm manager]**

Level and class of the events generated by KERWIN	
<b>default_class</b>	=
Default class for all the events generated by KERWIN. If this keyword has no value, there will be no default class.	
<b>default_level</b>	= 1
Default level of all the events generated by KERWIN. If this keyword has no value, the events will have a level equal to 1.	

Age-related events. This event is managed for a given variable, if its value is too old (exceeding of age threshold). Valid only for Phenix / Flowtel and Teleflo type local units. Configurable variable by variable.	
<b>count_class</b>	=
Age-related event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .	
<b>count_level</b>	=
Age-related event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .	
<b>count_threshold</b>	= 100
Default value of the age alarm threshold.	

Cyclical call fault event. Generated if a site has not carried out its cyclical call.	
<b>cycldef_class</b>	=
Cyclical call fault event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .	
<b>cycldef_level</b>	=
Cyclical call fault event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .	

Communication fault event. Generated if there is a communication fault for a site.	
<b>defcom_class</b>	=
Communication fault event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .	
<b>defcom_level</b>	=
Communication fault event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .	

Port fault event. Generated if there is a problem with a communication port (modem initialisation, opening of the port, etc).	
<b>defport_class</b>	=
Port fault event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .	
<b>defport_level</b>	=
Port fault event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .	

**[alarm manager]**

<p>Call route fault event. Generated if the recipient cannot be reached or does not acknowledge the event.</p> <p><b>dirast_class</b> =</p> <p>Call route fault class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b>.</p>
<p><b>dirast_level</b> =</p> <p>Call route fault event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b>.</p>
<p>Site disabled event. Generated if a site is disabled</p> <p><b>disable_site_evt</b> = 0 (possible values: 0 or 1)</p> <p>If it has the value 1, this keyword activates the generating of the site disabled event.</p>
<p><b>dissite_class</b> =</p> <p>Site disabled event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b>.</p>
<p><b>dissite_level</b> =</p> <p>Site disabled event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b>.</p>
<p>Variable disabled event. Generated if a variable is disabled</p> <p><b>disable_var_evt</b> = 0 (possible values: 0 or 1)</p> <p>If it has the value 1, this keyword activates the generating of the variable disabled event</p>
<p><b>disvar_class</b> =</p> <p>Variable disabled event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b>.</p>
<p><b>disvar_level</b> =</p> <p>Variable disabled event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b>.</p>
<p>Unknown site event. Generated if an alarm comes from an unknown site.</p> <p><b>unknown_site_evt</b> = 0 (possible values: 0 or 1)</p> <p>If it has the value 1, this keyword activates the generating of the unknown site event. If its value is 0, the site is automatically added to the database (in the case of a Schneider Electric Telecontrol local unit).</p>
<p><b>unksite_class</b> =</p> <p>Unknown site event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b>.</p>
<p><b>unksite_level</b> =</p> <p>Unknown site event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b>.</p>
<p>Cyclical call event generate by Kerwin</p> <p><b>appcycl_class</b> =</p> <p>Cyclical call Event Class. If this value is not defined, the event had the Class defined by <b>default_class</b> keyword.</p>
<p><b>appcycl_level</b> =</p> <p>Cyclical call Event Level. If this value is not defined, the event had the level defined by <b>default_level</b> keyword.</p>

**[alarm manager]**

Incoming call event (CLIP). Generated by KERWIN	
<b>incoming_call_evt</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword activates the generating of the incoming call event.
<b>incall_class</b>	= Incoming call event class. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .
<b>incall_level</b>	= Incoming call event level. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .

Event on the creation of a new site	
<b>newsite_evt</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword activates the generating of the event.
<b>newsite_class</b>	= Class of the event. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .
<b>newsite_level</b>	= Level of the event. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .

Event on remote command of a variable. The aim of this event is to trace theses user actions	
<b>remote_control_evt</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword activates the generating of the event.
<b>remote_control_class</b>	= Class of the event. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .
<b>remote_control_level</b>	= Level of the event. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .

Event on modification of the configuration of the alert system. The aim of this event is to trace theses user actions	
<b>alert_modified_evt</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword activates the generating of the event.
<b>alert_modified_class</b>	= Class of the event. If this keyword has no value, the event will have the class defined by the keyword <b>default_class</b> .
<b>alert_modified_level</b>	= Level of the event. If this keyword has no value, the event will have a level equal to that defined by the keyword <b>default_level</b> .

Managing of event emails	
<b>mailevent</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword launches the regular reading of event emails on the launching of the Data server. For this to operate, the POP3 server must be correctly parametered. (see <a href="#">Communication core start-up configuration</a> )

**[alarm manager]**

## Acknowledging of events

**ackevt** = 0 (possible values: 0 or 1)

If it has the value 1, this keyword generates an acknowledgement event each time that a user acknowledges an event. A record is also inserted in the [ackevt] table so that all the acknowledgements for a given event can be traced.

**ack\_class** =

Acknowledgement event class. If this keyword has no value, the event will have the class defined by the keyword **default\_class**.

**ack\_level** =

Acknowledgement event level. If this keyword has no value, the event will have a level equal to that defined by the keyword **default\_level**.

**ackxfa** = 0 (possible values: 0 or 1)

If this keyword has a value 1 and ackevt=1, it allows the synchronising of the acknowledgements from Netis Alarms.

**ackrule** = 0 (possible values: 0 or 1)

Définition of events acknowledgement rule when several users have to acknowledge an event.

- 0 is default value. The first acknowledgment change the statut of alarm: it's changed to "Acknowledge".
- 1 is the value which the data server wait all acknowledgment before changing the alarm statut to "Acknowledge".

**synchro** = 0 (possible values: 0 or 1)

This keyword allows synchronizing sites between several Kerwin.

0 = Not use

1 = Send synchronizations

2 = Received synchronizations

3 = Send and Received synchronizations

## Option for cleaning events and alarms

**clean\_evt\_opt** = 0 (possible values: 0 or 1)

This keyword modifies the cleaning criteria of the oldest alarms. If it has the value 1, an alarm must have been acknowledged before being transfered in the table of past events (even if it is returned to normal)

## Assignment of events to the real sites and / or virtual

**virtual** = 0 (possible values: 0, 1 ou 2)

This keyword allows you to select the type of site (real or virtual) that generated the events associated with a variable

0 = The events will be generated only for the real site containing the variable.

1 = The events will be generated only for virtual sites containing the variable.

2 = The events will be generated for both kind of sites containing the variable.

## Priority to the integration of events, acceleration of integration events

**timeslice** = 0 (0, > 0) duration in ms

This keyword allows you to give greater priority to the integration of events. Larger timeslice value is, greater the priority is given to the inclusion of events. The data server will be less available for other tasks.

**[alarm manager]**

Restricting of the protocols listened to by ports on call alert.

**Note:** non-Schneider Electric Telecontrol protocols that are not in the key cannot be listened to

<b>COM[n]</b>	=
This is the old version, retained for compatibility	
nothing	All protocols can be listened to
0	XMODEM + NAPBUS + VIDEOTEX
1	XMODEM
4	NAPBUS
8	GSM SMS
16	SOFBUS
32	VIDEOTEX
128	DATAM
256	TRSII
2048	PERAX
4096	PPP
8192	TECHNOLOG
16384	RADCOM
32768	BARTON
32774	LACBUS

Example:

COM3=61

61 = 1 + 4 + 8 + 16 +32

COM3 only listens to the protocols XMODEM + NAPBUS + GSM SMS + SOFBUS + VIDEOTEX

<b>PROTCOM [n]</b>	=
This is the new version that works as a list	
nothing	All protocols can be listened to
0	XMODEM + NAPBUS + VIDEOTEX+MODBUS2
32770	MODBUS2 (W@DE)

Example:

PROTCOM3=1,4,8,16,32

COM3 only listens to the protocols XMODEM + NAPBUS + GSM SMS + SOFBUS + VIDEOTEX

**[ast]**

Activation or non-activation of the alert module

**actif** = 1 (possible values: 0 or 1)

If it has the value 0, this keyword causes the deactivation of the alert module

Event acknowledgement option

**ack\_all** = 1 (possible values: 0 or 1)

For the value 1, this keyword causes the stopping of an event's routing if a recipient acknowledges it using the HMI or Kerweb (default case). If it has the value 0, routing continues normally for the other recipients.

**[exportation]**

Automatic file export format (Sequencer)	
<b>extension fichier</b>	= txt
Extension of the file generated.	
<b>format date</b>	= dd/MM/yyyy hh:mm:ss
Format of the date displayed	
<b>format null</b>	= VIDE
Character string to be displayed in place of a zero value	
<b>nom date</b>	= DATE
This token contains the character string that will be used to name the date column	
<b>nombre decimales</b>	= 2
Number of figures after the decimal point	
<b>repertoire</b>	= c:\kerwin32\file\
Default export directory	
<b>separateur</b>	= TAB
Column separator. TAB corresponds to tabulation, but any character may be put here	

**[importation]**

Text measurement file import format	
<b>format date</b>	= dd/MM/yyyy hh:mm:ss
Date format	
<b>format null</b>	=
Character string indicating the presence of a zero value	
<b>nom date</b>	= date - time
Name of the date column	
<b>remise a l'echelle</b>	= YES (possible values: NO or YES)
If it has the value YES, this keyword causes the scaling of the values based on the parametering performed in the variable configuration form	
<b>separateur</b>	= TAB
Column separator. TAB corresponds to tabulation	

**[pager]**

Configuring of the event fields transmitted in a alert message via pager (TAP, SMS) If this keyword is not entered, a default format is used: 10 character site telephone number, 25 character site name, 16 character site variable, 8 character alarm type, 19 character appearance date, 10 character variable value.	
<b>default</b>	=
Same format as for the keyword <b>log</b> of the <b>[kerwin manager]</b> section. We can also create this message by using the <KF token (email and fax template).	
<b>Examples:</b>	
default=4 19,5 19,3 16,12 16,8 10,10 6,7 10	
default=<KFlistingevenement>	
default=<KFlistingevenement 4 19,5 19,7 10>	
default=My alarm : <KFlistingevenement 4 19,5 19,7 10> date : <KFmaintenant>	

**[plug-in]**

## Message handling plug-in

**message path** = C:\kerwin32\plugin.sms\  
Access path to the folder where the specific message handling drivers are installed.

## Application handling plug-in

**app path** = C:\kerwin32\plugapp\  
Access path to the folder where the specific application handling plugins are installed.**[kerman log]**

## Saving of messages in Windows' log.

The operating and maintenance of KERWIN applications in a computer room and in a production environment requires the standardised recording of the significant events that occur during their operation.

**registered** = 0 (possible values: 0 or 1)

If this keyword is at 0, the Data server will save the event messages in the Windows system. Once the action has been performed, this keyword takes the value 1.

**enabled** = 0 (possible values: 0 or 1)

Activation or non-activation of message generation

**ev\_alive\_periodicity** = 0 (possible values: 0 or > 0)

Should the event 'I'm alive' be sent? (0=no, otherwise sending frequency in seconds)

**ev\_com** = 0 (possible values: 0 or 1)

Should communication fault errors on a site be sent? (1=yes, 0=no).

**ev\_cyclicalcall** = 0 (possible values: 0 or 1)

Should cyclical call fault errors be sent? (1=yes, 0=no)

**ev\_dbconnect** = 0 (possible values: 0 or 1)

Should the 'connection to database error' event be sent? (1=yes, 0=no)

**ev\_dblink** = 0 (possible values: 0 or 1)

Should loss of database link errors be sent (1=yes, 0=no)

**ev\_path** = 0 (possible values: 0 or 1)

Should an event be sent on a file search in a non-existent directory? (1=yes, 0=no)

**ev\_port** = 0 (possible values: 0 or 1)

Should port fault errors be sent? (1=yes, 0=no)

**ev\_start** = 0 (possible values: 0 or 1)

Should the 'start' event be sent on the launching of the data server? (1=yes, 0=no)

**ev\_stop** = 0 (possible values: 0 or 1)

Should the 'stop' event be sent on the stopping of the data server? (1=yes, 0=no)

**ev\_taskhasstarted** = 0 (possible values: 0 or 1)

Should an event be sent each time that a sequencer task is launched? (1=yes, 0=no)

**ev\_altrecipient** = 0 (possible values: 0 or 1)

Should an event be sent each time an alert recipient is in a fault status? (1=yes, 0=no)

**[kerman log]**

Saving of messages in Windows' log. The operating and maintenance of KERWIN applications in a computer room and in a production environment requires the standardised recording of the significant events that occur during their operation.	
<b>ev_brioman_decoding</b>	= 0 (possible values: 0 or 1) Should an event be sent each time an error occur in decoding SMS BRIO ? (1=yes, 0=no)
<b>ev_brioman_copying</b>	= 0 (possible values: 0 or 1) Should an event be sent on SMS BRIO's copying error for sharing directory by FTP ? (1=yes, 0=no)
<b>ev_brioman_cpydefdir</b>	= 0 (possible values: 0 or 1) Should an event be sent on SMS BRIO's copy into 'no sector name' directory for sharing directory by FTP ? (1=yes, 0=no)
<b>ev_brioman_destdir</b>	= 0 (possible values: 0 or 1) Should an event be sent if 'copy sms directory' item is void while BRIO SMS's treatment ? (1=yes, 0=no)
<b>ev_brioman_nosector</b>	= 0 (possible values: 0 or 1) Should an event be sent if 'no sector name' item is void while BRIO SMS's treatment ? (1=yes, 0=no)

**[repondeur]**

Configuring of the answering machine module on a voice server.	
<b>actif</b>	= 0 (possible values: 0 or 1) Activation or non-activation of the answering machine module. A user will be able to leave a voice message.
<b>client</b>	= 0 (possible values: 0 or 1) If this keyword is at 1, a user will be able to generate a voice alarm linked to a virtual client site whose number is entered on connection.
<b>intervention</b>	= 0 (possible values: 0 or 1) If this keyword is at 1, a technician will be able to leave a voice intervention report.

**[vocal]**

Configuring of the answering machine module on a voice server.

**evtformat** = 2 (possible values: 0, 1, 2, 3)

Voice message format

**ttsinit** = 0 (possible values: 0 or 1)

If this keyword is at 1, it forces the launching of speech synthesis

Specific configuration for alone man application (epureau).

**am\_epureau** = 0 (possible values: 0 or 1)

Allow the initialization of the alone man application

**[alarm timer]**

Configuring the name of the TIMER and SMARTANK files

**timer\_filename** = TIMER

The file generated from type-TIMER alarm will name with the contents of **timer\_filename** item

**smtk\_filename** = SMTK

The file generated from type-SMARTANK alarm will name with the contents of **smtk\_filename**

**[divers]**

Select the language for HMI and messages

**language** = 12

Language used for log file and HMI. Can be set from the Win32 HMI

9	English	12	French
10	Spanish	16	Italian

Management of the timezone

**timezone** = 0 (possible values: 0 or 1)

This keyword enables (1) the management of timezones in KERWIN.

Recognition of numbers Vocal GSM (SMS site identification)

**phonenummer\_cmp** = 0 (possible values: 0 or 1)

0 indicates a site search based on the last digit number (without country code)

1 indicates a comparison strictly (country code + number).

Management of the formula

**force\_eval\_date** = 0 (possible values: 0 or 1)

When set to 1, the formulas force the update of the database with the valuation date.

**[perax]**

Behavior specific to the local units PERAX

**CreationVoies** = 1 (possible values: 0 or 1)

Automatic creation of variables PERAX when receiving alarms.

**[frontal]**

Management of frontal LERNE

**actif** = 0 (possible values: 0 or 1)

Activation (1) of the management of frontal LERNE (there is also the option in the key)

**tempo** = 100

Timeout waiting writing

**detaill** = 1

Send to the frontal the detailed files of local units TBC

**synthese** = 1

Send to the frontal the synthesis files of local of TBC

**numVoieDefault** = 1

Variable number of each site that contains information about the transmission failure

**typInfDefault** = 21

Type of information to code the default transmission

**valDefault** = 1

Value associated with the default transmission

**maxmsg** = 100

Maximum number of message

**watchdog** = 120 ([0, 9999])

Frequency of transmission of the watchdog in seconds

**ipport** = 4000

Base IP port number for LERNE

**nomFrontal** = 0

Name of the frontal on a character

**astreinte** = 0

Management of alerting

Management of "KERWIN ALARM" / "ALARM XFLOW" synchronization

**synchro\_sites** = 0 (possible values: 0 or 1)

Operating option for "Air Liquide"

**ipport** = 32134

IP port used for receiving and sending acknowledgments

**[mobile]**

Sending SMS to the applications STAR and TRIP

**media** = GSM (or name of the message plug-in)

Name of the media that sends SMS.

**[brio communication]**

SMS communication with local units BRIO / W310	
<b>media</b>	= GSM (or name of the message plug-in) Name of the media that sends SMS to local units BRIO / W310.
<b>brio sms header mode</b>	= 1 (possible values: 0 or 1) Type of header in the message sent BRIO / W310.

**[brio diagnostic]**

Information Management diagnostic BRIO / W310	
<b>diagnostic</b>	= DIAG (or an other string) Name of the diagnostic file
<b>installation</b>	= INSTALL (or an other string) Name of the installation file
<b>RL</b>	= Radio level (or an other string) Description of variable.
<b>BL</b>	= Battery level (or an other string) Description of variable.
<b>SV</b>	= Software version (or an other string) Description of variable
<b>SA</b>	= Send Attempt (or an other string) Description of variable
<b>SS</b>	= SMS sent (or an other string) Description of variable
<b>MC</b>	= Gaz Consumption (or an other string) Description of variable
<b>SE</b>	= System error (or an other string) Description of variable
<b>ST</b>	= Session time (or an other string) Description of variable
<b>LC</b>	= Last configuration (or an other string) Description of variable
<b>NV</b>	= Number of variables (or an other string) Description of variable
<b>SN</b>	= Serial Number (or an other string) Description of variable
<b>AV</b>	= Application version (or an other string) Description of variable
<b>SR</b>	= SMS Received (or an other string) Description of variable
<b>OP</b>	= Operator ID (or an other string) Description of variable
<b>RT</b>	= Registration Time (or an other string) Description of variable
<b>CB</b>	= Current Bands (or an other string) Frequency band or group of two frequency bands chosen to register the modem on the network.
<b>CI</b>	= Cell Identification (or an other string) Description of variable

*Note: the values of diagnosis OP , RT, CB and CI are valid from version 6.20 of W310 / BRIO*

*Note: the text to the right of the equals sign is the description used in the diagnosis of W310 in Kerwin*

**[brio management]**

Kerwin to Kerwin SMS BRIO's management	
<b>default_sector_name</b>	= Default sector (or an other string) Default sector affected for a BRIO when he is created on SMS BRIO reception. If this sector does not exist, he is created. This value is readed each time she is needed from the configuration file.
<b>copy_sms_directory</b>	= C:\Program Files\Schneider Electric\Kerwin\FTP_SMS_BRIO (or an other string) SMS BRIO directory used for copying on a FTP server. If the value is void, it does same things as 'activated copy' equal 0. Moreover, an event is transmitted to the operating system (see [kerman log] section).
<b>activate_copy</b>	= 0 (possible value : 0, 1) Activation (=1) or deactivation (=0) of sending SMS BRIO on a FTP server.
<b>no_sector_name</b>	= No sector (or an other string) Default directory for BRIO who are not associated on a sector, in SMS's copy directory. If the value is void, it does same things as 'activated copy' equal 0. Moreover, an event is transmitted to the operating system (see [kerman log] section). This value is readed each time she is needed from the configuration file.

**[taskpar]**

Web synoptic management	
<b>maxcnttime</b>	= 10 (minutes) Maximum time for maintaining a connection through the data server to refresh the synoptic and operating Web pages.

**[site management]**

Various options related to the sites management	
<b>default_site_class</b>	= (a string, or empty if no default class) Automatically created class that will be associated with the new sites when they are created manually or automatically. Beware, when a new site is created in the Kerwin interface, if another site was selected its class will be used for the new site.
<b>default_site_level</b>	= (value between 0 and 255, or empty if no default level) Level that will be associated with the new sites when they are created manually or automatically. Beware, when a new site is created in the Kerwin interface, if another site was selected its level will be used for the new site.

**[file storage]**

File upload options	
<b>max_file_size</b>	= 1024 (bytes) Maximum authorized size of a file uploaded by the user.
<b>max_stored_files_space</b>	= 1048576 (bytes) Maximum disk space allowed for user file storage.
<b>max_stored_files_space</b>	= *.xls;*.pdf List of authorized file extensions (*. * for all)

**[kerwin manager pannel]****Application server interface configuration****Port** = 0 ou 1 (default 1)

The 'Comm Ports' section is expanded (1) or reduced (0) at startup.

**Tache** = 0 ou 1 (default 1)

The 'Tasks' section is expanded (1) or reduced (0) at startup.

**Log** = 0 ou 1 (default 1)

The 'Log' section is expanded (1) or reduced (0) at startup.

**LogHeight** = (height in pixels)

'Log' section height at startup.

**nbBigPorts** = (big ports maximum number)

Maximum number of ports to display big icons. Above this number, small icons will be used, along with a scrollbar if necessary.

**7.2 HMI START-UP CONFIGURATION**

The HMI's start-up configuration is usually defined on the initial installing of KERWIN. On each restart, the HMI reads the configuration from the file f

This file is in text format and can therefore be easily modified using a text editor. To open this file you can launch the application "KERWIN Configuration" in the "Schneider Electric / KERWIN32 Tools" programme group; this application opens the file in question with the "Notepad" editor.

The file is made up of sections. The sections have the following format:

```
[name of the section]
keyword 1=value1
keyword 2=value2
keyword 3=value3
```

We will now take a look at all the sections.

**[alarme]**

Information allowing the playing of a sound file to signal the presence of an active alarm	
<b>son</b>	=
Access path to the sound file. This must be a file in WAV format	
<b>intervalle</b>	=
Time interval in seconds between two launchings of the sound signal.	

**[appli]**

These keywords are used internally by KERWIN for the automatic launching of the browser and the Data server	
<b>kerman</b>	= C:\kerwin32\kerman32.exe Kerwin32.CFG
Access path to the data server	
<b>kermin</b>	= C:\kerwin32\kermin32.exe, Minitel emulator
Access path to the Minitel / internet browser	

These variables are used to define the applications appearing in KERWIN's 'Go To' menu.	
<b>nbappli</b>	= 1
Indicates the number of applications in this menu	
<b>appl</b>	= C:\kerwin32\kvisu32.EXE, KERVISU 32
app[n] where n varies from 1 to nbappli. Indicates the complete path and the displayed name of the application to be launched.	

**[ast]**

France Veille option	
<b>fv</b>	= 0 (possible values: 0 or 1)
If it has the value 1, this keyword causes the appearing of the 'FV N°' field in the 'General' tab of the site configuration form. This field allows a site to be associated with a France Veille number so that alert messages can be sent on this type of medium.	

**[clientserver]**

<p>In the case of use in a KERWIN network, the client/server module must be defined.                  In this operating mode, a server station and one or several client stations must be defined. The client station only launches the HMI for viewing and parametering purposes, whereas the server station launches both applications (data server and HMI).                  If KERWIN is used without the client/server module, these values must be left at 0.</p>	
<b>client</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword launches KERWIN in client mode
<b>server</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword launches KERWIN in server mode
<b>trace</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword traces the exchanges between clients and server
<b>clientminitelport</b>	= 0 (possible values: 0 to 255) Can launch the minitel emulator in client mode (specific application). It is the port number

**[divers]**

<p>Presentation options</p>	
<b>appli</b>	= Kerwin 32 Name of the application displayed in the title bar
<b>language</b>	= 12 HMI language 9        English 10       Spanish 12       French 16       Italian Parametrable from the HMI
<b>maxfenetres</b>	= 50 Maximum number of windows that may be displayed in the HMI

<p>Saving of the environment (parametrable from the HMI)</p>	
<b>saveenv</b>	= 1 (possible values: 0 or 1) If it has the value 1, this keyword causes the position of the windows to be saved on closing and restoring on the launching of the HMI.

<p>Time zone management option</p>	
<b>timezone</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword makes the 'Time zone' tab appear in the site configuration form. This tab allows the managing of time zones.

<p>Graphic copy/paste format (parametrable from the HMI)</p>	
<b>format graph</b>	= BMP Format of the graphic copied into the memory BMP        Image in point mode WMF        Improved metafile image This parameter may be modified from the HMI

**[divers]**

Date display format (parametrable from the HMI)

**type format** = 0 (possible values: 0 or 1)

0 Windows format

1 user format

**format date** = dd/MM/yy

Format of the date entered by the user

**format heure** = hh:mm:ss

Format of the time entered by the user

Command execution timeout

**dbcommandtimeout** = 30

Command execution timeout (in seconds) for queries in database. If timeout is expired, action is failed.

Selection of the application icon

**icone** = IC\_DEFAULT (or IC\_GEREMI)

IC\_GEREMI is the icon for SAUR

**[fax]**

Sending of faxes

**printer** = Kerwin Fax

This variable indicates the name of the Fax printer used to send Faxes.

The fax manager must have been correctly installed.

**[fpagepar]**

Automatic return to the splash page (parametrable from the HMI)

**activate** = 0 (possible values: 0 or 1)

If it has the value 1, this keyword activates automatic returning to the splash page

**tempo** = 60

Time of inactivity in minutes after which the HMI returns to the splash page.

**[images]**

Image folder management. This folder contains all the images used by the HMI. Logo, Synoptic, etc.	
<b>directory</b>	= c:\kerwin32\images\ Access path to the image folder
<b>load</b>	= load.bmp Name of the image displayed on the starting up of the HMI. You can use the image of your choice or any image.
<b>logo</b>	= Logo displayed in the splash page. You can use the image of your choice. If the image cannot be found, the KERWIN logo is displayed.
<b>showversion</b>	= 1 (possible values: 0 or 1) For value 1, the version of Kerwin is displayed on the splash screen.

**[ihm log]**

Saving of messages in the Windows log. The operating and maintenance of KERWIN applications in computer rooms and in a production environment requires the standardised recording of the significant events that occur during their operation.	
<b>registered</b>	= 0 (possible values: 0 or 1) If this keyword is at 0, the Data server will save the event messages in the Windows system. Once the action has been performed, this keyword takes the value 1.
<b>enabled</b>	= 0 (possible values: 0 or 1) Activation or non-activation of message generation
<b>ev_alive_periodicity</b>	= 0 (possible values: 0 or > 0) Should the 'I'm alive' event be sent? (0=no, otherwise sending frequency in seconds)
<b>ev_dbconnect</b>	= 0 (possible values: 0 or 1) Should the 'connection to database error' event be sent? (1=yes, 0=no)
<b>ev_tbconnect</b>	= 0 (possible values: 0 or 1) Should connection to table errors be sent (1=yes, 0=no)
<b>ev_start</b>	= 0 (possible values: 0 or 1) Should the 'start' event be sent on the launching of the HMI? (1=yes, 0=no)
<b>ev_stop</b>	= 0 (possible values: 0 or 1) Should the 'stop' event be sent on the stopping of the HMI? (1=yes, 0=no)
<b>ev_taskhasstarted</b>	= 0 (possible values: 0 or 1) Should an event be sent each time that a sequencer task is launched? (1=yes, 0=no)

**[kerwin manager]**

Site management options. These options are not validated by default.	
<b>backupmodem</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword makes the 'Link' tab appear in the site configuration form. This tab allows the managing of communication backups.
<b>zones</b>	= 0 (possible values: 0 or 1) If it has the value 1, this keyword makes the 'Zones' tab appear in the site configuration form. This tab allows location information to be added to a site (country, region, zone, comment).
Graphic exporting for kerweb	
<b>Kwcoeff</b>	= 100 Scaling coefficient for graphic exporting for Kerweb

**[kerwin manager]**

Displaying of information about variables option

**visinum** = 0 (possible values: 0 or 1)

If it has the value 1, this keyword displays the number of variable lines for HERMES, TELEFO, TL04 and PHENIX/XFLOW type local units

**[print]**

Event listing printing option

**monochrome** = 1 (possible values: 0 or 1)

If it has the value 1, this keyword forces the printing of the event listing in black and white. If it is at 0, the printing is in colour.

**[tableau]**

Management chart internal editor validation option (VCF1.5)

**editeur vcf1.5** = 0 (possible values: 0 or 1)

If it has the value 1, this keyword allows the displaying of the specific editor, by right-clicking in one of the cells of the management chart being created.

Management chart printing options

**prtscale** = 100 (possible values between 10% and 400%)

Indicates the scaling factor.

**prtfitpage** = -1 (possible values: -1 or 0)

0 The **PrtScale** scaling factor is used to print the management chart.

-1 The management chart is printed on the number of horizontal and vertical pages found in the **PrthPages** and **PrtVPages** keywords.

**prtvpages** = 1 (number of pages)

Number of vertical pages.

**prthpages** = 1 (number of pages)

Number of horizontal pages.

**[taskpar]**

Synoptic option

**synoactivate** = 1 (possible values: 0 or 1)

If it has the value 1, this keyword validates the synoptic module

**taskactivate** = 1 (possible values: 0 or 1)

If it has the value 1, this keyword allows a synoptic to connect to sites

**eanatbc** = ieee

If it has the value ieee, this keyword asks a synoptic to read the TBCs' analog values with the 'IEEE' format. Otherwise, reading is takes place with the 'word x 10' format

**updatevalue** = 0 (possible values: 0 or 1)

If it has the value 1, this keyword asks the synoptic to update the database with the value of the variable that has just changed. The value will therefore be kept. This option may slow down the refreshing of the values.

**7.3 COMMUNICATION CORE START-UP CONFIGURATION**

The communication core's start-up configuration is usually defined on the initial installing of KERWIN. On each restart, the core reads the configuration from the KERCOM.INI file.

This file is in text format and can therefore be easily modified using a text editor. To open this file you can launch the "Comm port configuration" application in the "Schneider Electric/KERWIN32 Tools" programme group; this application opens the file in question with the "Notepad" editor.

The file is made up of sections. The sections have the following format:

```
[name of the section]
keyword 1=value1
keyword 2=value2
keyword 3=value3
```

We will now look at all the sections used to define a basic configuration. The sections and data that are not mentioned here are described in Appendix A.

**[comm services]**

List of communication ports (real or virtual) managed by the core	
<b>ports</b>	= COM1..COM4 (possible values: COM1 to COM255)
Example: ports=COM1..COM3,COM5,COM25..COM27	
Using two fullstops ( . . ) you can specify a port range (COM1 to COM4 for example)	
<b>Note</b> : COM254 and COM255 are reserved for Kervisu application	

Frame repetition parameters	
<b>modbus repeat count</b>	= 3
Number of frame repetitions if the response time elapses.	

**[type]**

Defining the communication port type	
<b>COM[n]</b>	= remote
local	The port is local (local unit directly connected to the PC)
remote	The port is of the modem type
net	The port is of the UDP (by default) or TCP type

**[baudrate]**

Defining of the speed of the communication ports on call alert			
<b>COM[n]</b>	= 38400		
Possible speeds			
300	bauds	14400	bauds
600	bauds	19200	bauds
1200	bauds	38400	bauds
2400	bauds	56000	bauds
4800	bauds	57600	bauds
9600	bauds	115200	bauds
It is strongly recommended that you set a speed greater than the modem connexion speed, in order to avoid data losses and connexion issues. 57600 is the first speed that always matches with this criteria.			

**[parity], [databits], [stopbits]**

<b>[parity]</b> : Defining of the parity of the communication port at initialization time	
<b>COM[n]</b>	= N (possible values : N, E, O)
N : None ; E : Even ; O : Odd	
<b>[databits]</b> : Defining of the data bits of the communication port at initialization time	
<b>COM[n]</b>	= 8 (possible values : 8, 7)
8 : eight bits ; 7 : seven bits	
<b>[stopbits]</b> : Defining of the stop bits of the communication port at initialization time	
<b>COM[n]</b>	= 0 (possible values : 0, 1, 2)
0 : one stop bit ; 1 : one and half stop bit ; 2 : two stop bits	

**[initstring]**

Defining of the initialisation string of modems on call alert.	
<b>COM[n]</b>	= V1E0M1
This string depends on the type of modem.	

**[dialingmode]**

Defining of the communication port type	
<b>COM[n]</b>	= TONE (possible values: TONE, PULSE)
This parameter is only used if the type is not specified in the telephone number (see Parametering / Sites).	

**[tapentries]**

Defining of the RAS inputs linked to the communication ports. Useful for a PPP connection to a Phenix / Flowtel	
<b>COM[n]</b>	= MY RAS INPUT
Name of the RAS input associated with COM[n] ([n] between 1 and 254)	

**[timeout modbus]**

Defining of the ports on call alertresponse time	
<b>COM[n]</b>	= 10000
This is a value in milliseconds	

**[COM[n]]**

Additional information about the communication ports	
<b>localipport</b>	= 32136
IP port on listening alert for COM[n] ([n] between 1 and 254)	
<b>prot</b>	= udp (possible values: udp or tcp)
Allows the IP protocol to be specified for COM[n]	
<b>group</b>	= COM1..COM4 (possible values : COM1 to COM254)
Allows to define COM[n] as a group of ports that includes the ports declared. Example : group=COM1..COM3,COM5,COM25..COM27	
Using two fullstops (..) you can specify a port range (COM1 to COM4 for example)	
<b>wait before opening</b>	= 0
Allows to define the wait time in milliseconds before the opening of the port	

**[alarm]**

Call waiting parameters

<b>connectionMbTO</b>	= 10000
Defining of the response time on protocol detection (in ms)	
<b>internalRecAlTO</b>	= 900000
Maximum slave session time (in ms)	
<b>retry count</b>	= 4
Number of protocol detection attempts	

Option specific to SOFREL type local units

<b>sfb ack alarm</b>	= 1 (0 or 1)
If it has a value 1, this keyword launches the acknowledging of events from SOFREL type local units.	
<b>sfb ip ack alarm</b>	= 0 (0 or 1)
If it has a value 1, this keyword launches the acknowledging of events from SOFREL type local units on outgoing call in IP's link.	

SMS management

<b>checksms</b>	= 60000
This keyword specifies the time, in ms, between two SMS readings on a GSM modem.	
<b>checkcount</b>	= 10
This keyword specifies after how many SMS readings the GSM modem will be reset.	
<b>smsreadformat</b>	= Text (text ou pdu)
Setting reading sms. TEXT mode or PDU mode	

**[langage]**

Language used to return error messages

<b>code</b>	= 12	
9 English	10 Spanish	12 French

**[modem services]**

Modem management

<b>change dtr on init</b>	= 0 (possible values: 0 or 1)
If it has the value 1, this keyword asks the communication core to decrease and increase the DTR signal before each initialisation of the modems.	
<b>delay before plus</b>	= 1500 (time in ms)
Waiting time before sending the '+++' signal on the disconnecting of a modem.	

**[hayes modem]**

Modem management

<b>dialing time out</b>	= 60 (time in seconds)
Maximum time waiting for a modem connection after dialling. After this time, a dialling failure is declared.	
<b>tocommand</b>	= 15 (time in seconds)
Maximum time for responding to a Hayes command (AT, etc) sent to a modem.	
<b>waitafterconnect</b>	= 1000 (time in milliseconds)
Waiting time before the logical connection phase, after physical connection via modem.	

**[path]**

Measurement file management

**pvtfile** = c:\kerwin32\file\  
 Access path to the folder where the Communication core copies the measurement files that need to be processed by the Data server. This folder is not automatically created; in the event of modifications it must be created manually.

**Note:** the value of this keyword must be consistent with that found in the file kerwin32.cfg that is used to launch the Data server on start-up.

**[SMTP]**

SMTP server access parameters (sending of emails)

**adresse** = smtp.proxy.com  
 Server IP address

**port** = 25  
 SMTP service IP port

**user** =  
 Account name

**password** =  
 Password

**[POP3]**

POP3 server access parameters (receiving of emails)

**adresse** = pop.proxy.com  
 Server IP address

**port** = 10  
 POP3 service IP port

**user** =  
 Account name

**password** =  
 Password

**[sofbus]**

Specific to the SOFBUS/LACBUS protocol

**table controle** = 1 (possible values: 1 to 4)  
 Control table used to communicate on an incoming call with a SOFREL type local unit.

**[wit]**

Specific to the TRSII protocol

**pw** = KERWIN  
 Password to be used to communicate on an incoming call with a WIT type local unit.

**pwEasy** = KERWIN:PWD  
 Login and Password to be used to communicate on an incoming call with a WIT type local unit.

**[xmodem]**

Specific to the Schneider Electric Telecontrol XMODEM protocol

**tolc** = 30 (time in seconds)

Defining of the response time on an XMODEM logical connection to an old TBC model.

**[radio]**

modem radio management

**before** = 1000 (time in ms)

Waiting time before issue

**after** = 1000 (time in ms)

Waiting time after issue after which the RTS fell.

**[periphmbe]**

Management protocol and device NAPBUS

**longframes** = 1 (possible values: 0 or 1)

Use of long frames (default) or short frames for the protocol.

**longframesize** = 1400 (50 to 1400)

Maximum size of the long frame

**connectionname** = KERWIN

Connection name of Kernel application with NAPBUS protocol

**[napbus slavetomaster delay]**

Napbus protocol and port management

**COM[n]** = 1000 (time in ms)

Setting delay for passage in slave, communication port by communication port

**7.3.1 Configuration of a group of ports**

In the file KERCOM.INI, two types of ports can be declared:

- real COM ports
- groups of ports

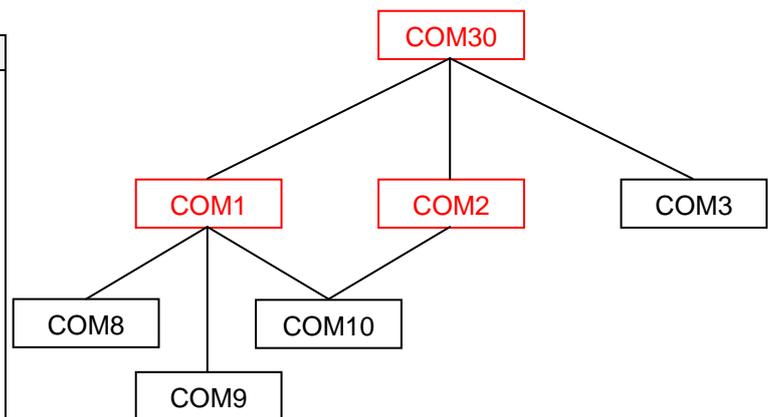
A group of ports makes it possible to declare several interchangeable ports.

It is possible to configure a connexion with real ports or groups of ports. In the case of the group of ports, the connection is established on one of the real ports available of the group.

It should be noted that a group of ports can itself contain one or more groups of ports as well as real ports. However the real ports which will be included in a group of ports must be of the same type as the group. The real ports and the groups of ports must be necessarily declared in the section **[comm services]**.

**Example:**

Kercom.ini	
[comm services]	
ports=COM1,COM2,COM3,COM8..12,COM30	
[Type]	
COM1=Net	
COM2=Net	
COM3=Net	
COM8=Net	
COM9=Net	
COM10=Net	
COM11=Net	
COM12=Net	
COM13=Net	
COM30=Net	
...	
[COM30]	} Ports 1, 2 and 30 are groups of ports.
group=COM1,COM2	
[COM1]	
group=COM8..COM10	
[COM2]	
group=COM10	



The following ports are real ports: COM3, COM8, COM9 and COM10.

COM30 is a group of ports, including the following real ports: COM3, COM8, COM9 et COM10.

COM1 is a group of ports, including the following real ports: COM8, COM9 et COM10.

COM2 is a group of ports, including the following real port: COM10.

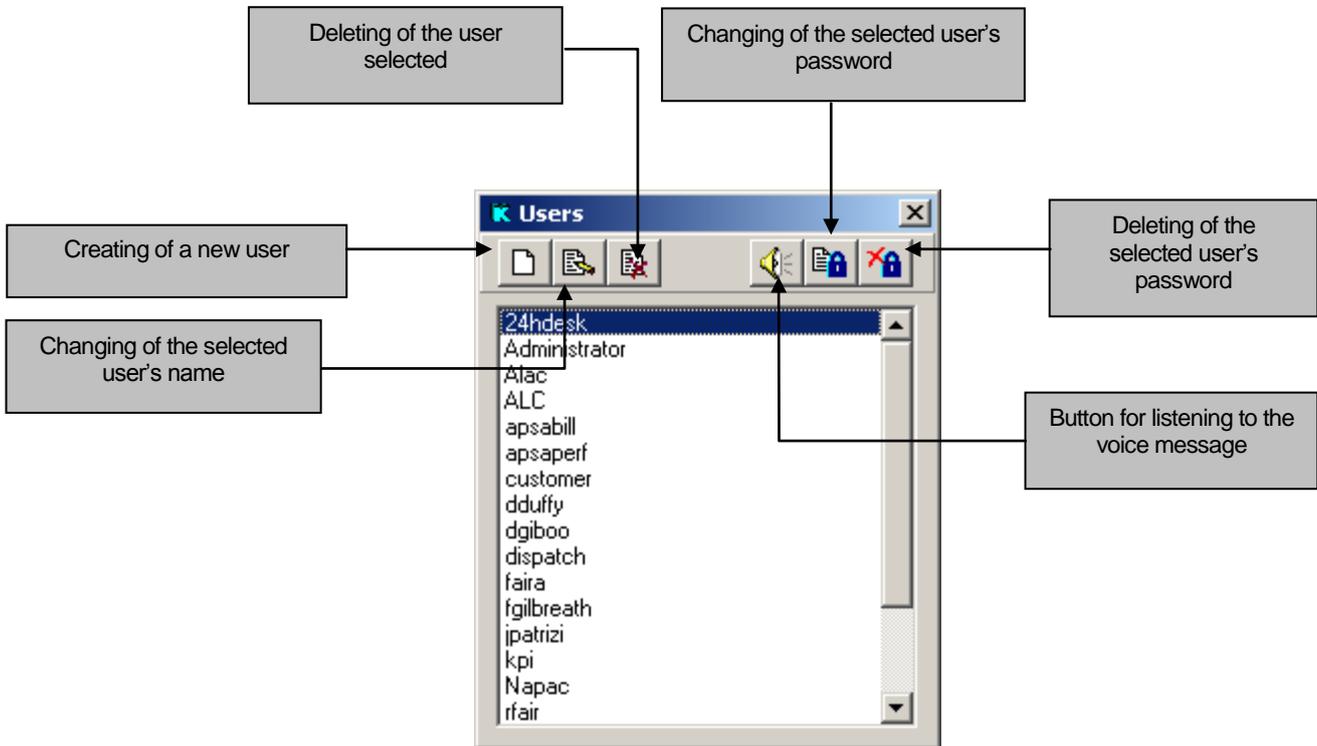
Configuration of kervisu32.cfg to distribute the ports:

- COM8, COM9 and COM11 in ports.
- COM10 and COM 12 in-out ports.
- COM3 and COM 13 out ports.

Kerwin32.cfg	
[kerwin manager]	
...	
Alarm Ports=	COM1,COM2,COM11,COM12
Recup Ports=	COM2,COM3,COM12,COM13
...	

7.4 USERS

Access: System / Users



This screen is used to:

- Define, modify or delete the master station's users
- Associate a user with a workgroup (see workgroup)
- Change or delete these users' passwords

**Note:** On delivery of KERWIN, a user is defined with the name "napac" and without a password.

7.5 CHANGE PASSWORD

This form is the same as for the users part when clicking on the 'modify password' icon .

The image shows a screenshot of the 'Change password' dialog box. The title bar says 'Change password'. It contains four text input fields: 'User name:' with the value 'Napac', 'Old password:', 'New password:', and 'Confirmation:'. To the right of the fields are two buttons: 'OK' and 'Cancel'.

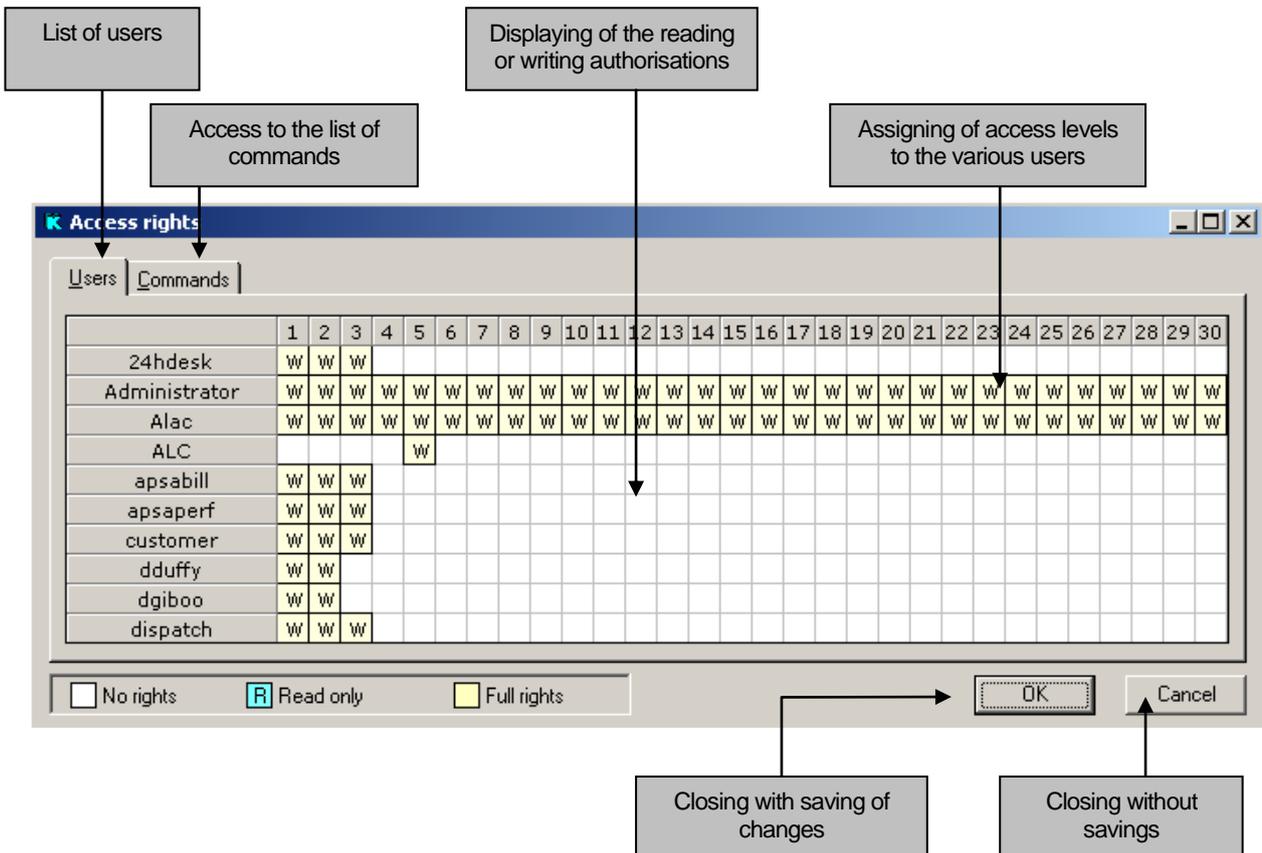
7.6 ACCESS RIGHTS

Access: System / Access rights

7.6.1 User rights

This screen is used to assign access rights to the master station’s users for the reading (viewing) and writing (modification, configuration) functions (commands).

By default, all new users have full reading access rights and a single writing right: his password.



To modify a user’s rights, click in the corresponding box. Each click moves you up to a higher access level, in the following order:  →  →  →

In the configuration above:

- Jean has reading / writing access to all the level 1, 2 and 3 commands
- Marc has acces in reading mode only to level 1 commands
- Napac has access in reading / writing mode to all the commands

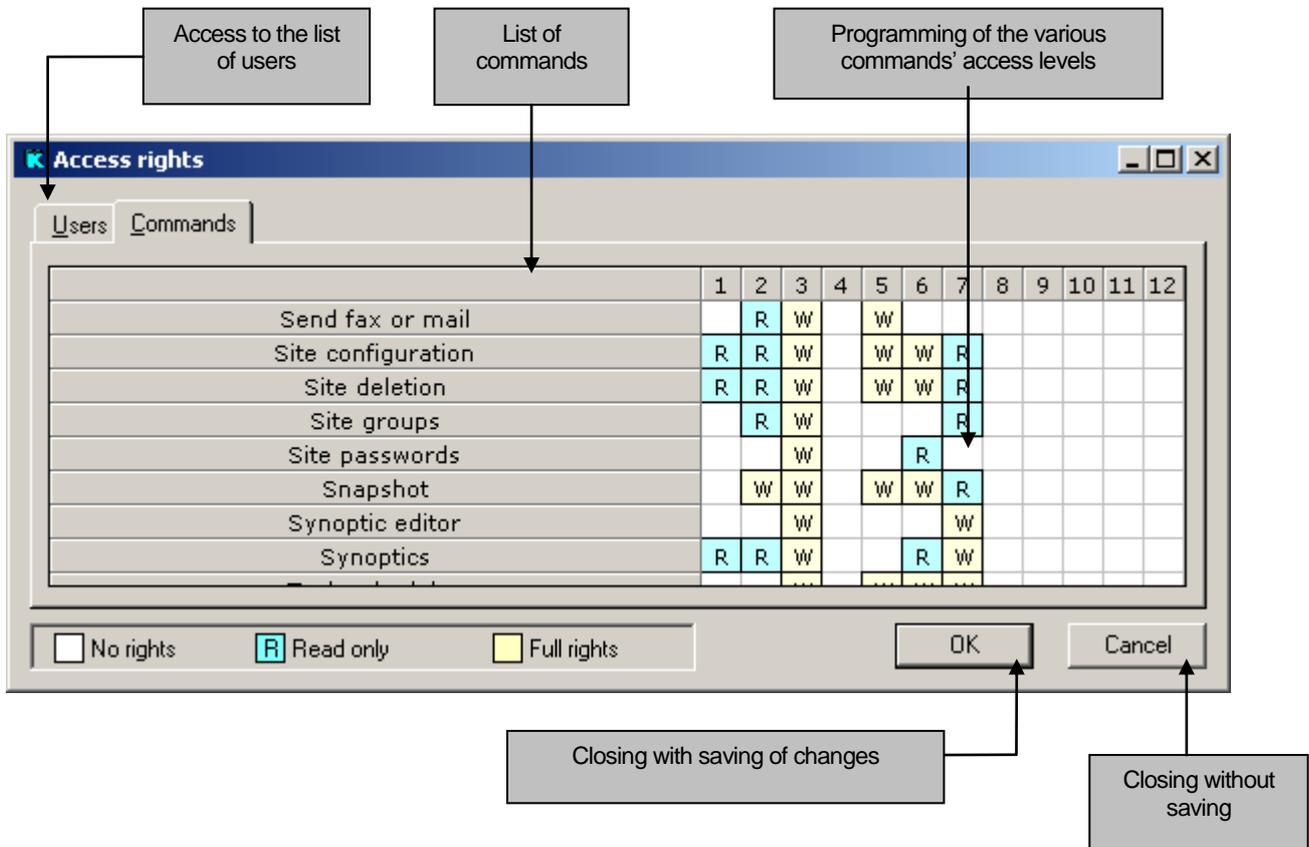
7.6.2 Super-user

A super-user is a user who has access to all commands whatever their level. To define a super-user, just set all levels from 1 to 30 with full rights

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Jonathan	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W

7.6.3 Level of the commands

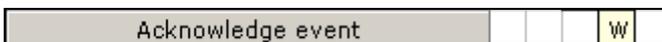
You must therefore adapt this default configuration according to the authorisations granted to each user. To do this, view the list of commands available on KERWIN, in reading and writing mode, and the access levels assigned to them (out of the 30 available). This screen is accessed via the “Commands” tab in the previous screen:



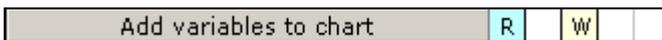
You can change these access levels if necessary. Then all you need to do is assign the levels granted to the user.

To change a command’s rights, click in the corresponding box. Each click moves you up to a higher access level, in the following order:  →  →  →

7.6.4 Examples



The 'Acknowledge an event' command can be used by users who have writing access level 4: the 'administrator' and 'ALAC' user.



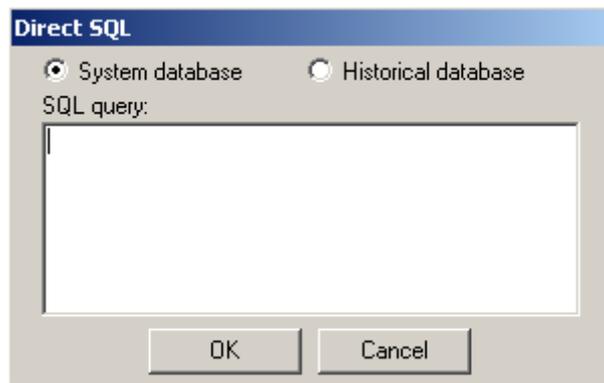
The 'Add variables to graphics' command can be used by users who have writing access level 3: everyone but users 'ALC', 'dduffy', 'dgiboo'.  
Users who have level 1 reading rights can only view it: everyone but user 'ALC'

7.7 DATABASE-SQL QUERY

Access: System / Database

The SQL query choice displays form to write and execute SQL query on kerwin databases (historical and system one). It is necessary to have knowledge in SQL and database management.

**Caution:** This kind of action can be destructive.



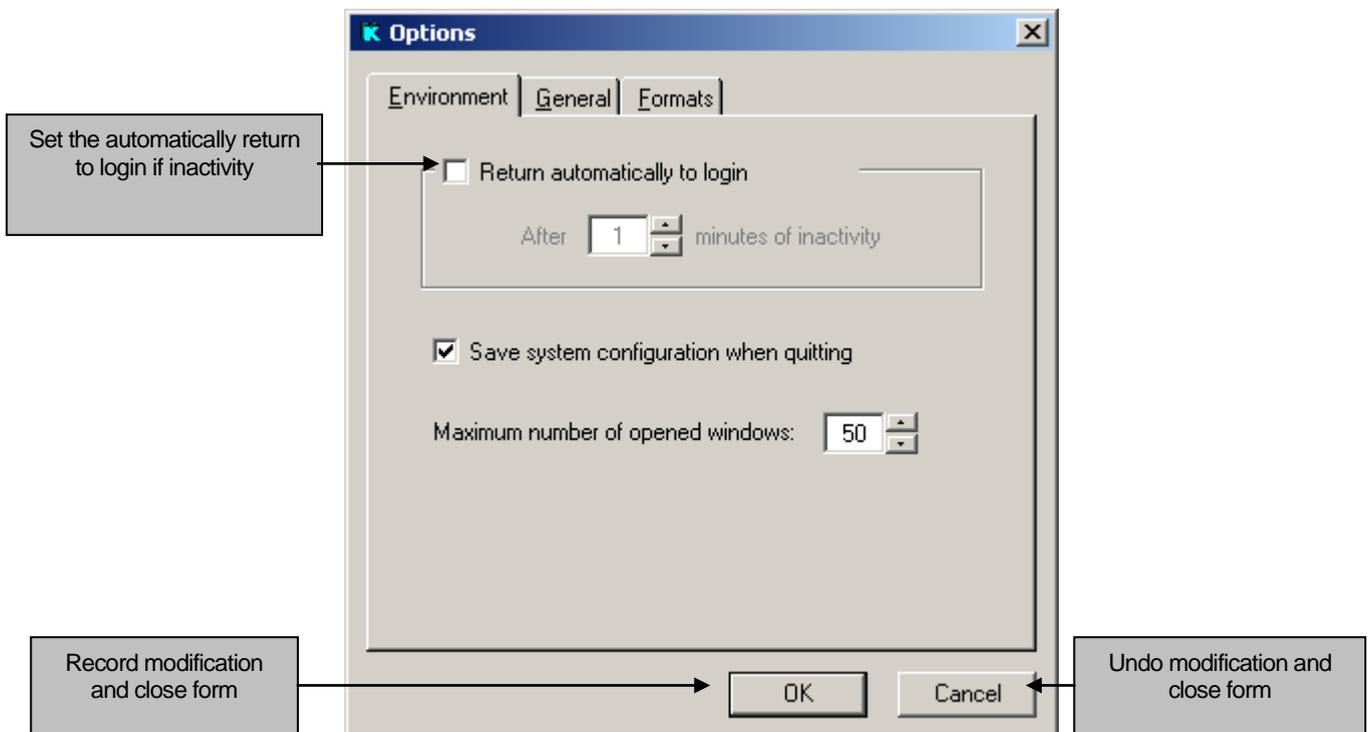
7.8 ADVANCED

Access: System / Advanced

7.8.1 Option

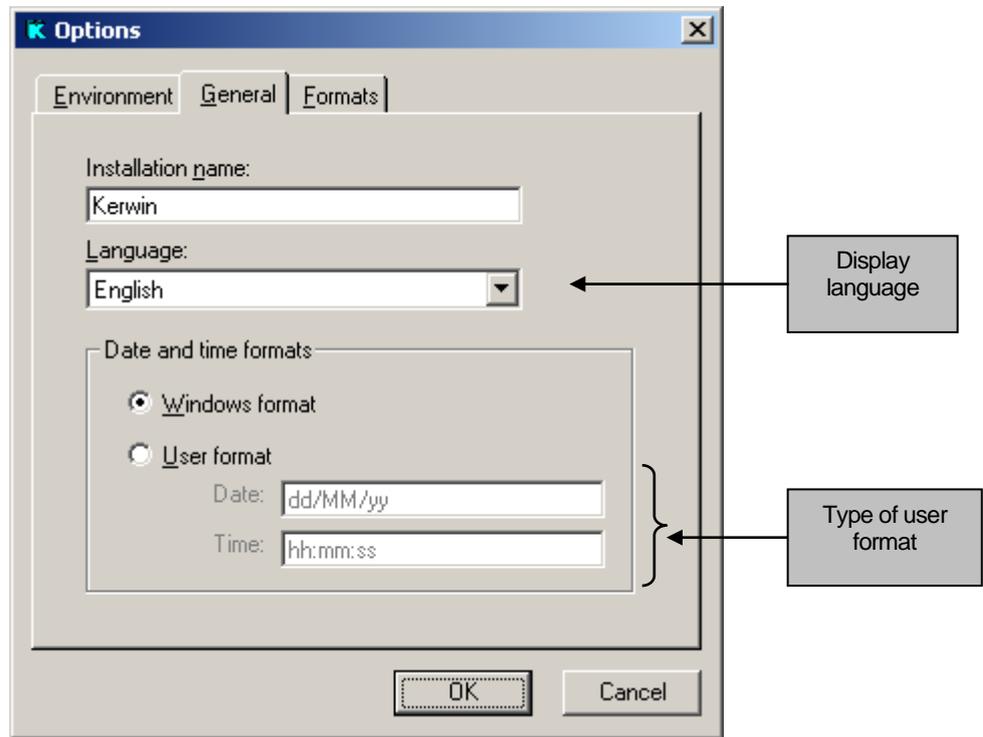
Display form involved in setting information relevant to Kerwin displayed language, type of graphic format when exporting and environment.

7.8.1.1 Environment



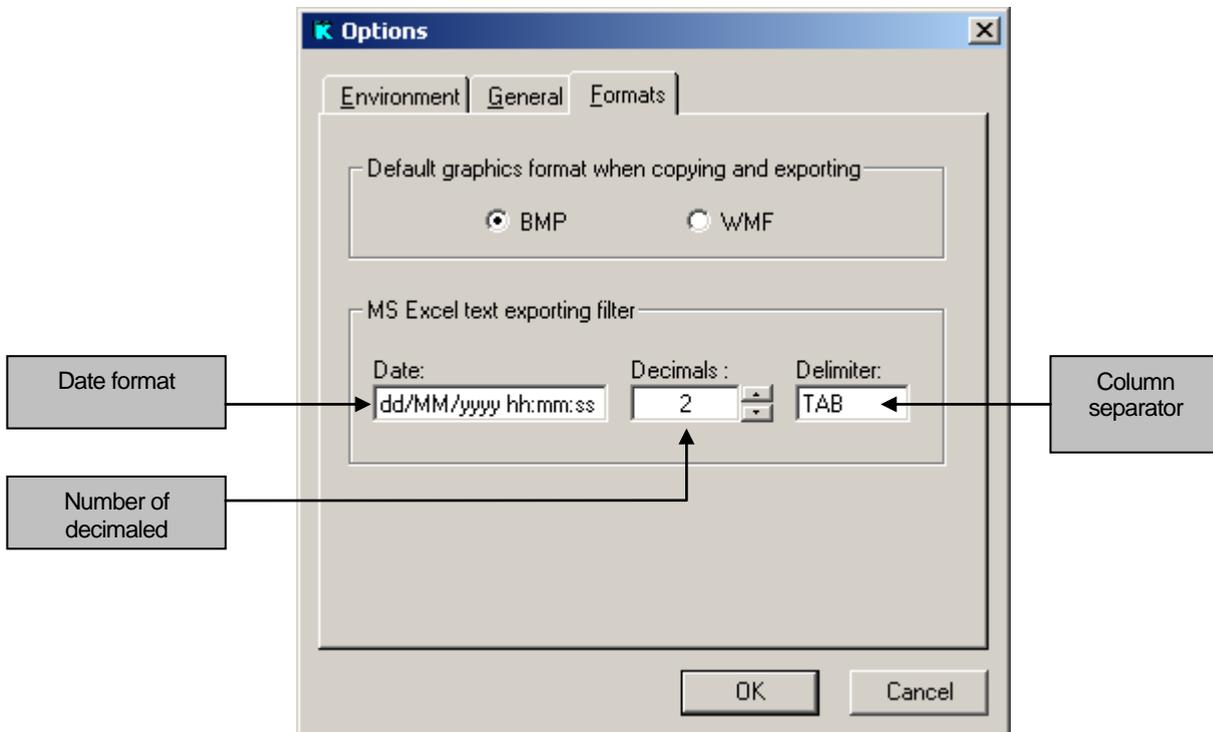
7.8.1.2 General

Display parameters for Kerwin as language used, date and time format.



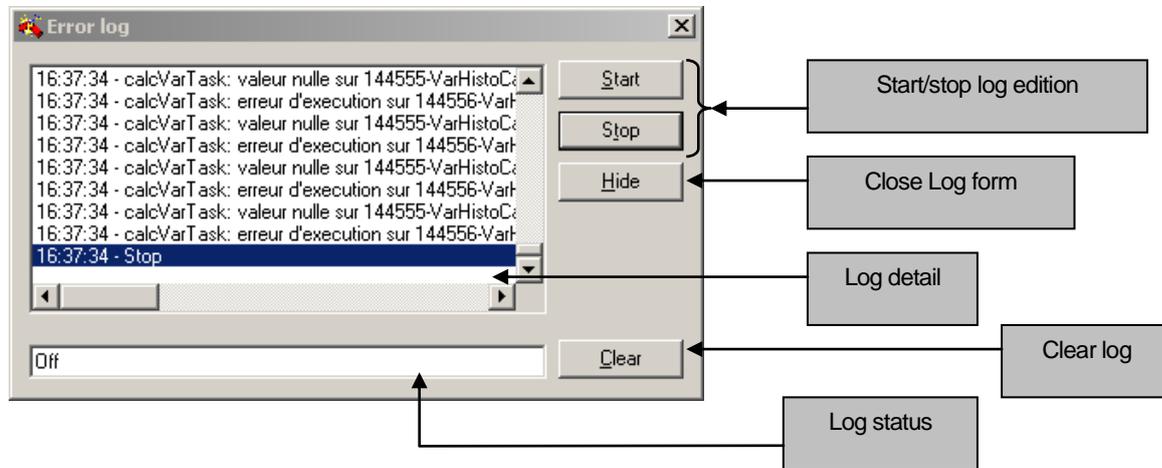
7.8.1.3 Formats

Define the graphic format for copying or exporting information.



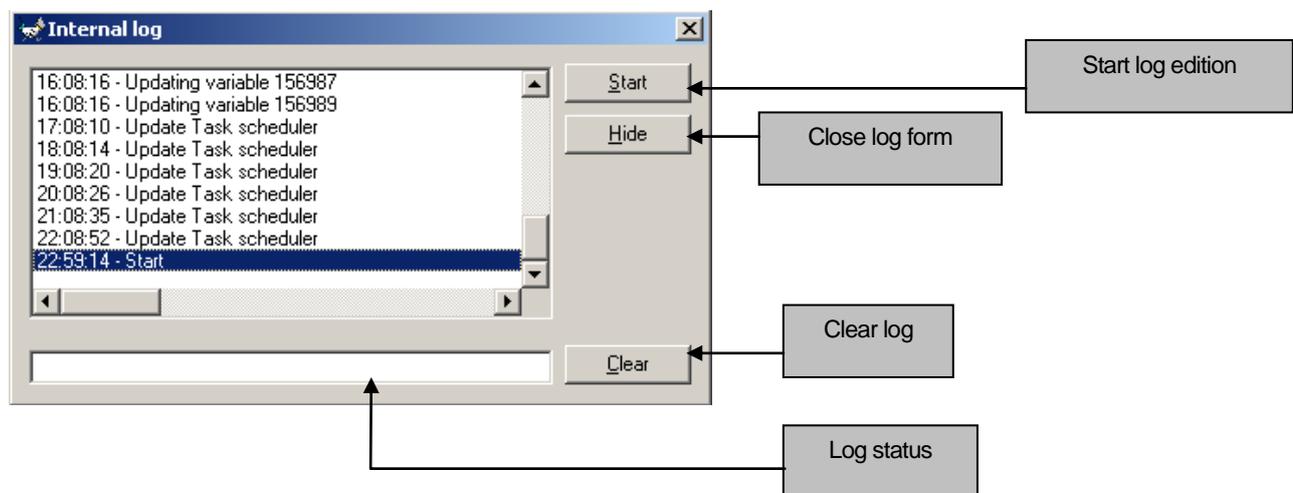
### 7.8.2 Error log

Access: System / Advanced / Error log  
 Display form with kerwin errors in progress.



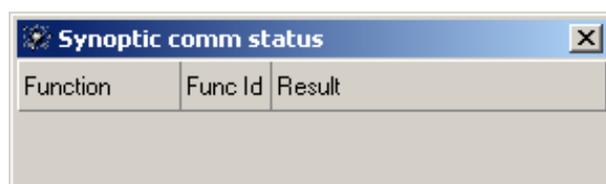
### 7.8.3 Internal log

Access: System / Advanced / Internal log  
 Display log of Kerwin action.



### 7.8.4 Synoptic com status

Display status of communication for synoptics (information).

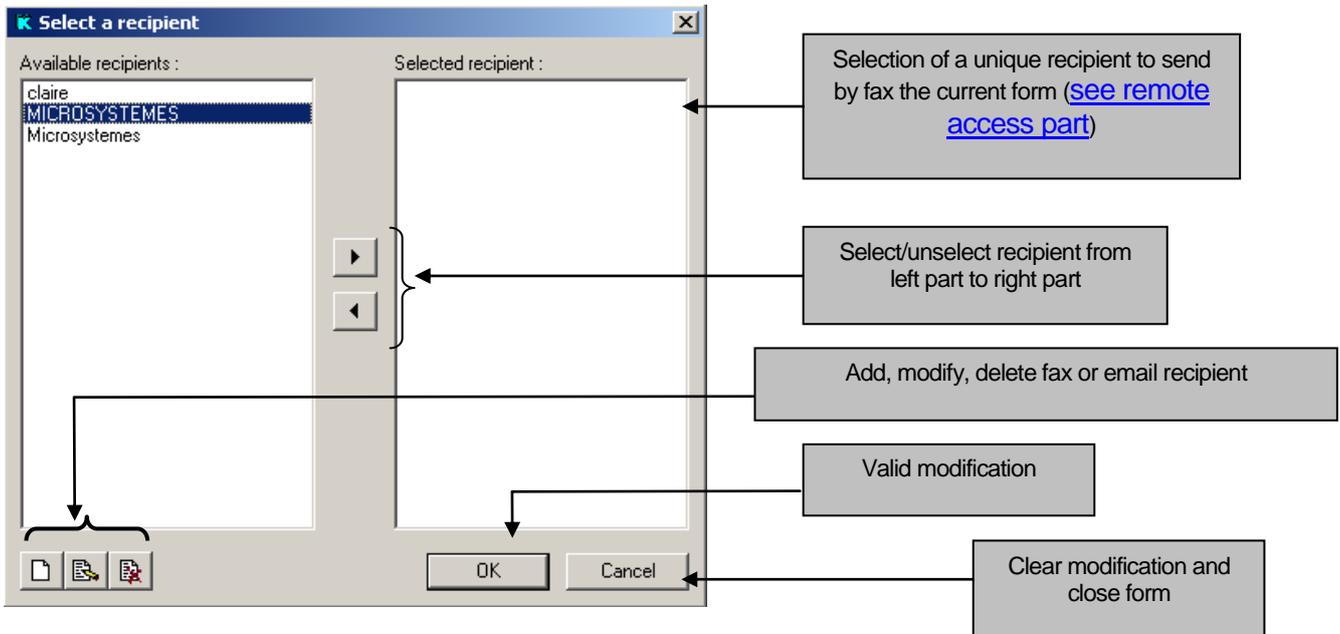


7.8.5 Printers

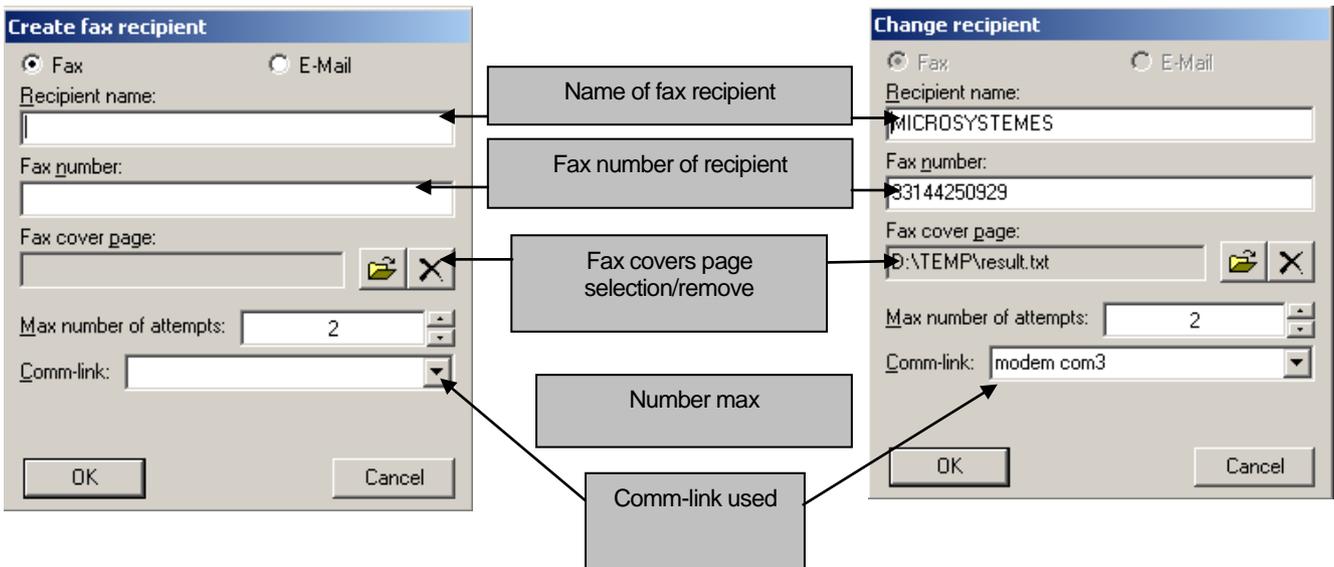
Printers form displays Windows system printer dialog box to select parameters for printing (printer, paper format ...).

7.8.6 Fax

Fax display form to add, modify or delete recipient device defined in Kerwin to send information by fax or email ([see remote access part](#)).

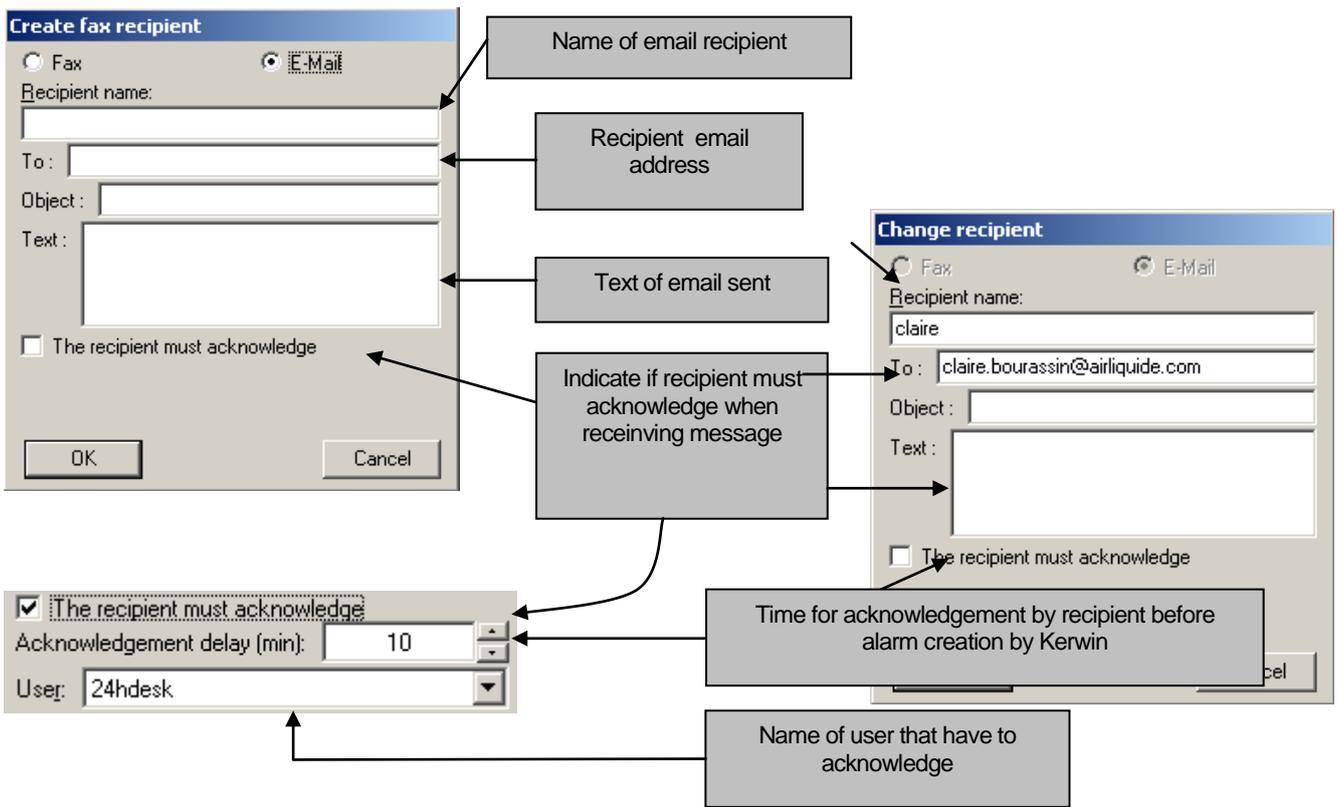


7.8.6.1 Fax recipient



A fax cover page can be added if needed.

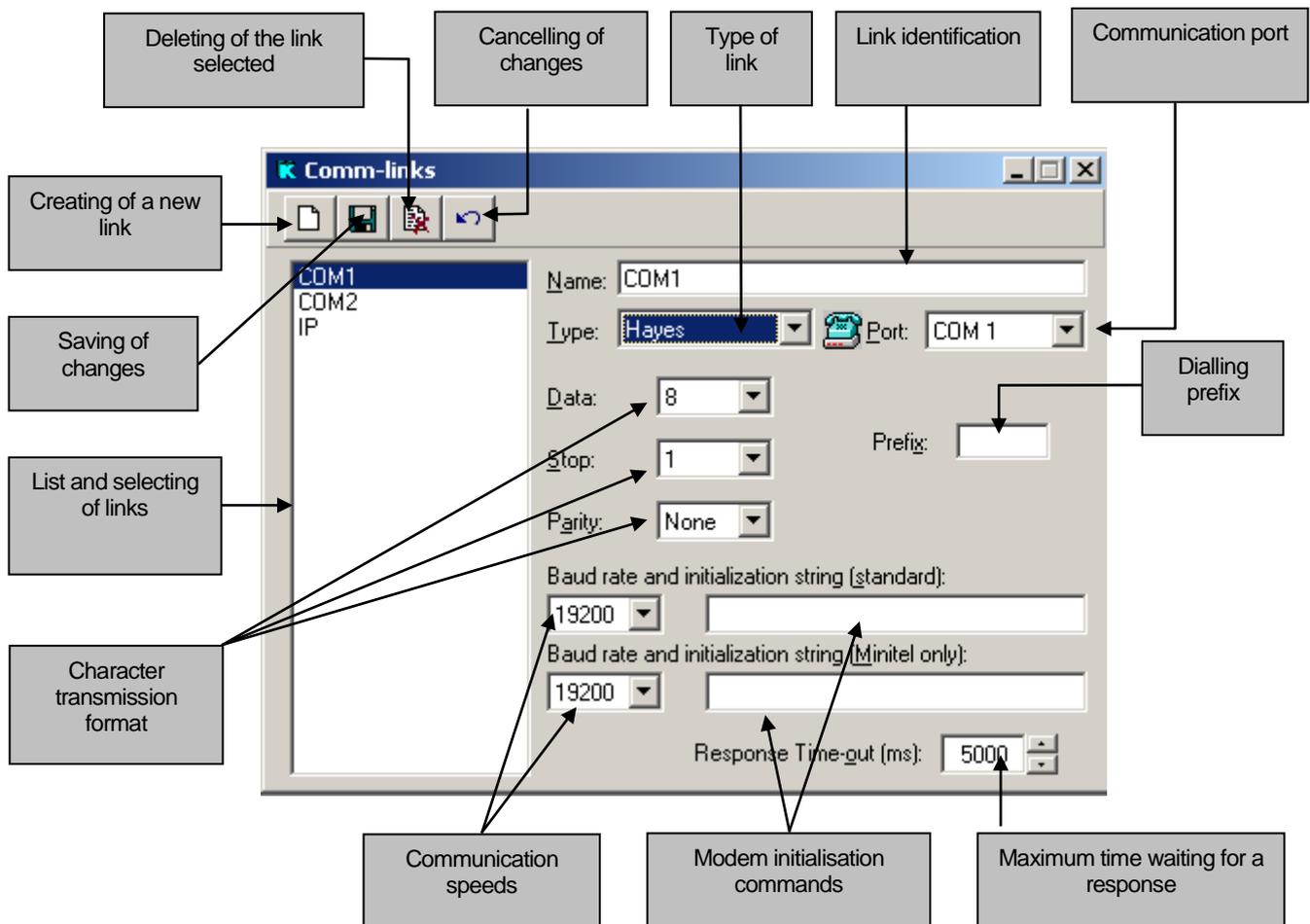
7.8.6.2 Email recipient



7.9 COMM-LINKS

The “Comm-links” screen is used to configure the various types of communications implemented by KERWIN for the monitoring of local stations and telephone alerts. On the parametering of each local station and each call route you must assign one of the links defined at this level (see “Sites” and “Alerts/Call routes” headings in the “configuration” section).

Access: Configuration / Comm-links



7.9.1 Defining comm-link

When a telephone line is used to connect to a local unit, the modem must be configured appropriately. This parametering takes place by defining a link. This link will indicate how the local unit physically communicates. The link may be reused to connect to all the local units that communicate in the same way.

Configuration / Sites: The link defined in this window will be used when connections are made to animate a synoptic, and by default on file transfers.

Configuration/ Files: The link selected will be used for file transfers. If nothing is indicated, the link used will be that defined in the site’s configuration.

Configuration / Alerts / Call routes: The link will be used to call the alert recipient. Different links must be used depending on the alert medium.

“Data”, “Parity” and “Stop” communication parameters are predefined for Local and Hayes type links; these values correspond to the parameters of the Schneider Electric Telecontrol local stations communicating with KERWIN via the telephone network (Hayes type) or via the local terminal port or local network (Local type) using the Napbus or Modbus2 protocol.

### 7.9.2 The different type of comm.-link

#### Modem (Hayes)

#### IP (TCP or UDP, TCP/IP, UDP/IP)

#### Locale

#### PPP

### 7.9.3 Parametering a comm-link

#### 7.9.3.1 Description of the fields

##### 7.9.3.1.1 Name

Link identification label (free definition)

##### 7.9.3.1.2 Type

Chosen from the Local, Hayes, TCP/IP, PPP list

- Hayes refers to a STN installed on one of the PC's slots (internal) or connected to one of the serial ports (external).
- Local refers to a direct wire link with one of the PC's serial ports or a serial adapter.
- TCP or UDP refers to a communication via the IP network (UDP or TCP). This type is obsolete and is only here to ensure compatibility with an older configuration.
- TCP/IP refers to a communication via the TCP/IP network.
- UDP/IP refers to a communication via the UDP/IP network.
- PPP refers to a point to point type connection. Connection is delegated to Windows' RAS system. An RAS input must therefore have been previously associated with the port selected.

##### 7.9.3.1.3 Port

Choose between COM1 and COM254 or floated port list.

This refers to the address of the serial port used (Local, Hayes, PPP) or of a virtual port (IP) defined in the [communication core start-up configuration](#)

To use a group of ports, you have to choose the port upon which the group of ports have been defined in the communication core configuration.

##### 7.9.3.1.4 Speed

Chosen from the 300 / 600 / 1200 / 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 list

In the case of communication with a TBC local station, choose:

- 1200 bauds if communication is via the telephone network (V23 mode: 1200-75 bauds)
- 4800 bauds if communication is via the local terminal port
- The speed configured on the TBC (“Slave modbus” item) if communication is via the local network

In the case of communication with a Phenix / Flowtel local station, choose:

- 19200 bauds if communication is via the telephone network.
- 115200 bauds if communication is via the local port

It is strongly recommended that you set a speed greater than the modem connexion speed, in order to avoid data losses and connexion issues. 57600 is the first speed that always matches with this criteria.

#### **7.9.3.1.5 Data, Parity, Stop**

Format of characters: number of data bits, parity, number of stop bits

##### 7.9.3.1.5.1 Data

Chosen from the 7 / 8 bits list

In Schneider Electric Telecontrol local units, choose **8 bits**

##### 7.9.3.1.5.2 Parity

Chosen from the without / Odd / Even list

In Schneider Electric Telecontrol local units, choose **none**

##### 7.9.3.1.5.3 Stop

Chosen from the list 1 / 2

In Schneider Electric Telecontrol local units, choose **1**

#### **7.9.3.1.6 Initialization string, Prefix, Touche-tone**

Parameters used with a Hayes type link

##### 7.9.3.1.6.1 Initialization string

Modem initialisation command. The initialisation string depends on the brand and type of modem used. Refer to the manual for your modem.

##### 7.9.3.1.6.2 Prefix

Prefix for accessing the public telephone network if the modem's line is connected to a private automatic branch exchange.

##### 7.9.3.1.6.3 Touch-tone

Dialling type compatible with the telephone system: voice frequencies (box ticked) or decimal pulses; preferably choose voice frequency dialling if the system permits both types

#### **7.9.3.1.7 Response waiting TimeOut**

Value to be entered in milliseconds

It is the waiting time for a response before raising an error. This value depends on the communication speed of your local unit and on the type of link.

In the case of communication with a TBC local station, enter **8000 ms**.

In the case of communication with a Phenix / Flowtel local station, choose **2000 ms**.

#### **7.9.3.1.8 Baud rate and initialization string for Minitel connection to a local unit**

Some local units require a modem connection (baud rate, initialisation) other than the basic one to provide access to their videotex server. The properties specific to Minitel connection must therefore be entered in these two fields.

### 7.9.3.2 Receiving alarms / Incoming calls

If the alarm reception module is being used, the properties of the links used for call waiting are described in the file 'KERCOM.INI'.

This file is in text format and can therefore be easily modified using a text editor. To open this file you can launch the "Comm port configuration" application in the "Schneider Electric / KERWIN32 Tools" programme group; this application opens the file in question with "Notepad" editor. See [Communication core start-up configuration](#)

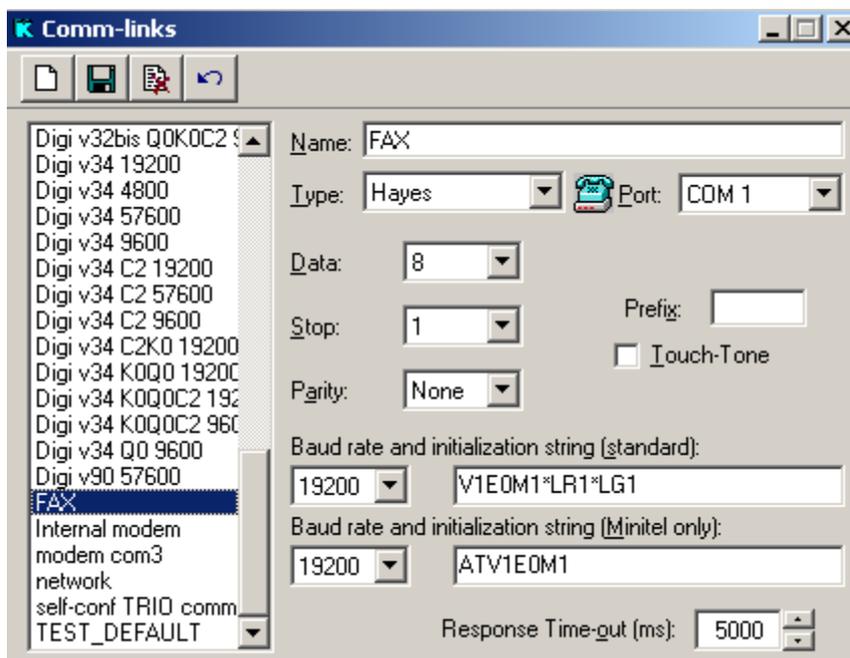
```
[InitString]
COM2=AT&F5V1E0M0
COM3=ATV1E0M1 %C2&R2@A1*M1%H3@L1
```

The string defined for COM2 blocks the modem in V23 mode.

The string defined for COM3 allows the modem to automatically recognise the calling modem.

### 7.9.3.3 Alert comm-links – example of FAX

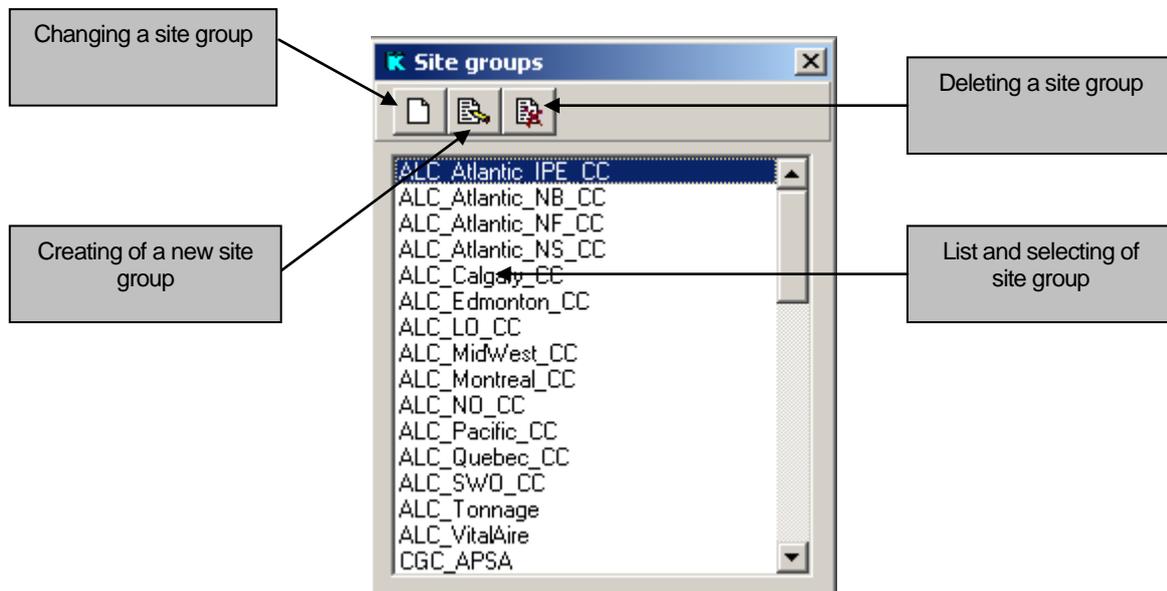
Below is a comm.-link for sending a FAX defined for the AJ 2885 modems produced by the company CXR.



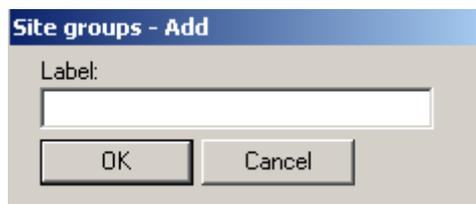
- A 19200 baud connection speed is necessary for most faxes.
- The initialisation string V1E0M1\*LR1\*LG1 asks the modem to communicate with the XON / XOFF protocol.

7.10 SITE GROUPS

Access: Configuration / Site groups



This screen allows you to configure the sectors that will sectorize sites : this configuration is limited to assigning identification labels:



When configuring sites, you can assign one of the sectors defined at this level.

The site group will allow you to:

- Perform sorting in event tables,
- Condition alerts activation at alert criteria parametering level,
- Define workgroups.

On a deletion request, KERWIN checks that there are no sites attached to the site group and if this is not the case deletion is refused:

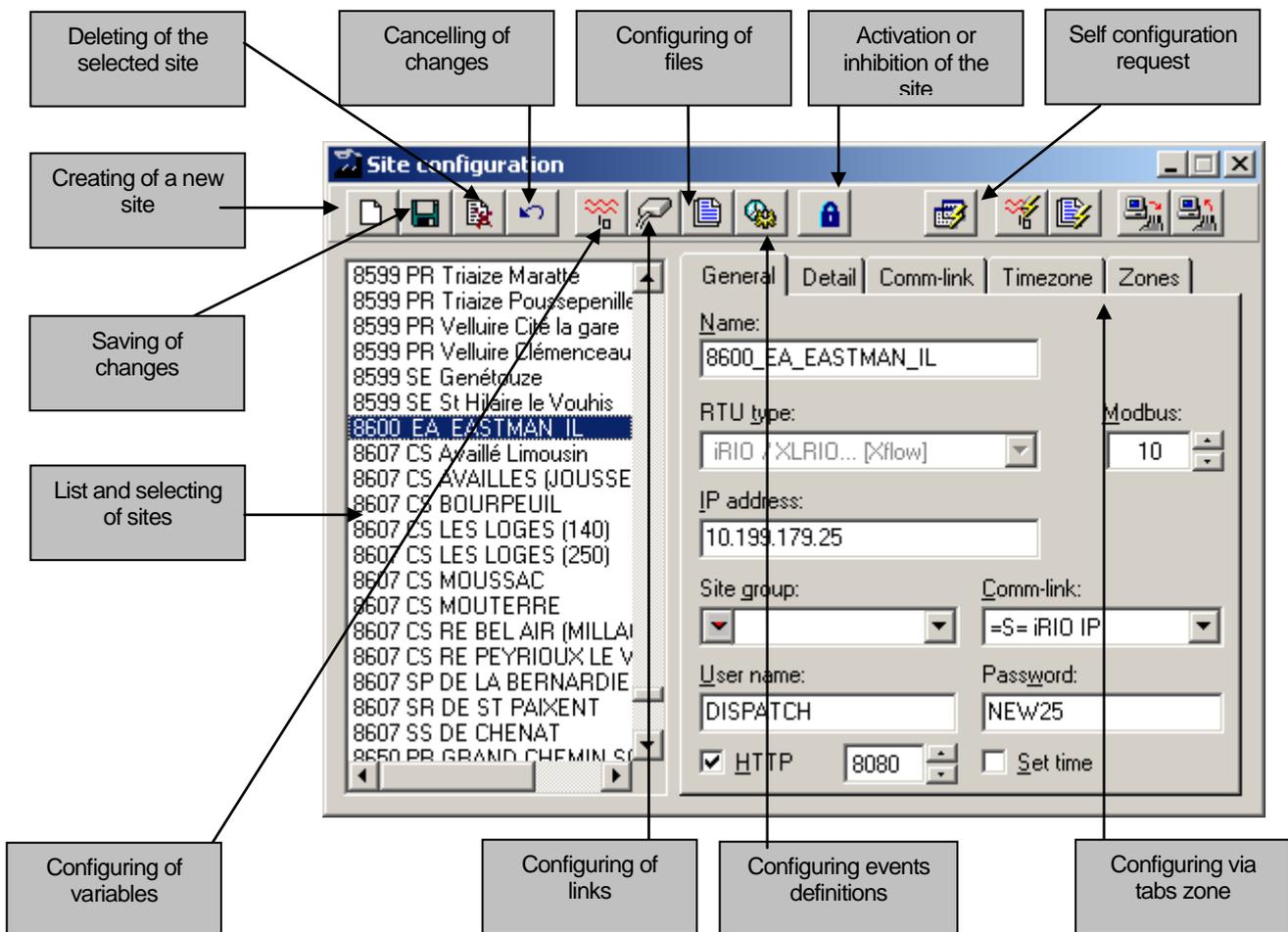


## 7.11 SITES

This screen is used to declare and configure the various sites remotely managed by KERWIN: parameters concerning the actual sites (address, etc) and parameters concerning the local stations installed (type, link, etc); in the current version of the product, a single local station is associated with a site.

The majority of the Schneider Electric Telecontrol local units are self configurable; this self configuration may take place automatically (in particular on receipt of an alarm) or following an operator request using the “self configuration request” icon in the screen above (see [Self configuration](#) in section 5).

Access: Configuration / Sites



The configuration via tabs zone can be used to enter the various parameters of the sites. Some tabs may not be present. The presence depends on the validating of the 'backupmodem', 'timezone' and 'zones' options in the KERWIN32.CFG file (see [HMI start-up configuration](#)).

The tabs are:

- General: general local unit communication and identification parameters
- Detail: cyclical call management parameters
- Comm-Link: special modem backup management and calling routing parameters
- Timezone: time zone management parameters
- Zones: geographic management parameters

### 7.11.1 Configuring and checking procedure

For reasons of efficiency and security, you are advised to follow the procedure below when configuring sites:

#### 7.11.1.1 Creation site by site

Proceed site by site, using the following copying procedure where possible for sites whose properties are similar (Site group, comm.-link, etc):

- Select a site similar to the new site to be configured from the list
- Click on the 'Add'  button; this is then created with the parameters of the site selected and a satellite number incremented by 1
- Modify the parameters that are specific to the new site
- Finally, click on the 'Save'  button

#### 7.11.1.2 Calling the new site with the Minitel / Internet browser

 The aim of this call is to check and possibly programme the parameters that are essential for implementing KERWIN's monitoring functions.

#### 7.11.1.3 Alarm and cyclical call reception attempt

If possible perform an alarm and cyclical call reception attempt (if the "Alarm" module is being used). To do this you can force a local unit logic input into alarm status by temporarily modifying its alarm status.

#### 7.11.1.4 Launching self configuration

 Only for local units that allow this functionality.

Launching takes place via the "Self configuration" button in the screen above; following this request, KERWIN automatically configures the local unit's variables and files.

#### 7.11.1.5 Configuring the local station's variables

 This configuring is limited to the assigning of the "Class" and "Category" fields, in the case of automatic configuration by KERWIN. See "Parametering / Variables" in this section.

#### 7.11.1.6 Configuring files

 This configuring is limited to the assigning of the "Category" field, in the case of a self configuration by KERWIN. See "Configuration / Files" in this section.

#### 7.11.1.7 Launching the immediate updating of the instantaneous values

 Launching takes place via the "update values now" button. Following this request, KERWIN refreshes all the values of the selected site's variables.

#### 7.11.1.8 Launching the immediate downloading of all the files

 Launching takes place via the "download all files now" button. Following this request, KERWIN retrieves all the selected site's files (Events, Measurements, etc).

#### 7.11.1.9 Configuring events definitions

 This configuring is not necessary in case of automatic configuration by KERWIN. See "Configuration / Events definitions" in this section. (Only for iRIO, XLRIO, SLXA, DIVAXA)

#### 7.11.1.10 Activation / Inhibition of the site



A site can be disabled (desactivated) by clicking on this button. When the site is inhibited the button changes his shape.



The site is activated by clicking again on the button. When the site is activated the button changes his shape.

When a site is disabled, all its variables are also becoming disabled. The scheduler will no longer trigger any action on this site. Any alarms that arrive are ignored.

If the option `disable_site_evt` is enabled in the configuration file KERWIN32.CFG (see [Data server startup configuration](#) , [alarm manager] section), a minor fault event is generated while the site is inhibited. The event returns to normal when the site is reactivated

**Note:** A user can activate or inhibit a site only if he has write permission on this specific command (see Maintenance / access rights, control "Enable/Disable sites")

#### 7.11.1.11 Deletion of the site



You can remove a site from the KERWIN database by clicking on this button  
The removal of the site will also remove its tracks, files, events, description of events...

**Note:** A user can delete a site only if he has write permission on the specific command (see Maintenance / access rights, control « Site deletion »)

### 7.11.2 General tab

You will use this tab to configure the identification parameters of the local unit and the means of communicating with it.

The screenshot shows the 'General' tab of the configuration interface. The fields and their corresponding callout labels are as follows:

- Name:** 8600\_EA\_EASTMAN\_IL (RTU identification name)
- Number:** 1201 (RTU identification number)
- RTU type:** iRIO / XLRIO... [Xflow] (RTU type)
- Modbus:** 10 (Slave modbus address)
- IP address:** 10.199.179.25 (Phone number or IP address)
- Site group:** (Sector to which site belongs)
- Comm-link:** =S= iRIO IP (Communication with the RTU)
- User name:** DISPATCH (Name of user account)
- Password:** NEW25 (User's password)
- HTTP:**  (HTTP port of the RTU)
- Port:** 8080 (HTTP port of the RTU)
- Set time:**  (Resetting the clock of the RTU)

#### 7.11.2.1 Identification parameters

##### 7.11.2.1.1 Type

Selecting of the type of Schneider Electric Telecontrol local unit or other unit by selecting it from the following list:

- Schneider Electric Telecontrol local units
  - BRIO / W310
  - iRIO / XLRIO / SLXA / DIVA XA
  - W@DE W315, W320E, W325
  - TELEFLO
  - TL04 (Schneider Electric Telecontrol)
  - FLOWTEL-VISECO
  - HERMES
  - MUC4 (old version of 1<sup>st</sup> generation TBC)
  - MUC5 / MUC5 Double / MUC9 (2<sup>nd</sup> generation TBC)
  - TBC – FLOWTEL
- Other units (optional)
  - AQUAPAC (Technolog)
  - BARTON
  - YELLOW METER (EDF requires a special TRIMARAN V23 modem)
  - GREEN METER VERT (EDF requires a special TRIMARAN V23 modem)
  - DATAM (Datam-Flutec DFT80M)
  - PERAX (PERAX P200, P200X et P200XM, P400X)
  - RADCOM (RADCOM datalogger)
  - SOFREL (S10, S15, S50, S500 with Sofbus/Lacbus protocol)
  - WIT (WIT, local units using the TRSII protocol, CLIP; FORCE; E@SY)

- “Virtual” Sites
  - INTERNAL (virtual site independent of a local unit, see [Internal variables](#))
  - VIRTUAL (c.f. the virtual sites)

#### 7.11.2.1.2 Name

It is the site Identification (30 alphanumeric characters). In the case of XFLOW (iRIO / XLRIO/ SLXA/ DIVA XA / PHENIX / FLOWTEL) / W@DE / WIT type RTU, the name of the site is also used to identify the local unit when alarms are received; it must therefore be the same as that parametered in the local unit.

Attention: W@DE name must not exceed 16 characters to be correctly identified.

#### 7.11.2.1.3 Number

The local unit's satellite number; in the case of the TBC, this is the number defined in the “Site and Codes” item of the “Maintenance” menu.

#### 7.11.2.1.4 Modbus

Slave Modbus address of the local unit; in the case of the TBC, this is the address defined via the software's “Modbus” item, on the port used in communicating with KERWIN (STN, Terminal or Network). For XFLOW (iRIO, XLRIO...) the slave modbus address is defined in the system table.

#### 7.11.2.1.5 Username /Password

In the case of the PHENIX/FLOWTEL type local unit, several user accounts may be defined and have different access rights. Information concerning these accounts must therefore be entered here.

Enter one of the passwords for local station access. In the case of the TBC, this password may be a level if the “Configuration uploading and downloading” function is not in use; otherwise, you must enter the “Maintenance” level password.

### 7.11.2.2 Communication parameters

#### 7.11.2.2.1 Comm-Link

Chosen from the list of links defined in the “Links” item according to the medium used to communicate with the local station (see [Parametering / Links](#)).

#### 7.11.2.2.2 Phon number / IP address

Number of the line to which the local unit is connected or the IP address that identifies the local unit in an IP type network.

### 7.11.2.3 Classification parameter

#### 7.11.2.3.1 Site group

Assigning of a geographical sector by choosing one from the list of sectors defined via the “Configuration / Site group” item.

Site groups are very useful for:

- Sorting the events of sites belonging to the same site group,
- Launching a call programme for all the given alarms of a site group
- Classing sites into workgroups.

You can create and modify the site group using this tab. Click on the  button to display a scrolling menu:

-  To create a new site group.
-  To change the selected site group's label.

7.11.2.4 Operating parameter

7.11.2.4.1 Set time

If this option is ticked, the local unit's time is reset after each communication session with KERWIN, whether in incoming call or outgoing call mode.

If the time zone option has been activated in the file KERWIN32.CFG and the site is linked to a time zone, KERWIN resets the site to the local time, based on this time zone information.

7.11.2.4.2 IP port for the HTTP protocol

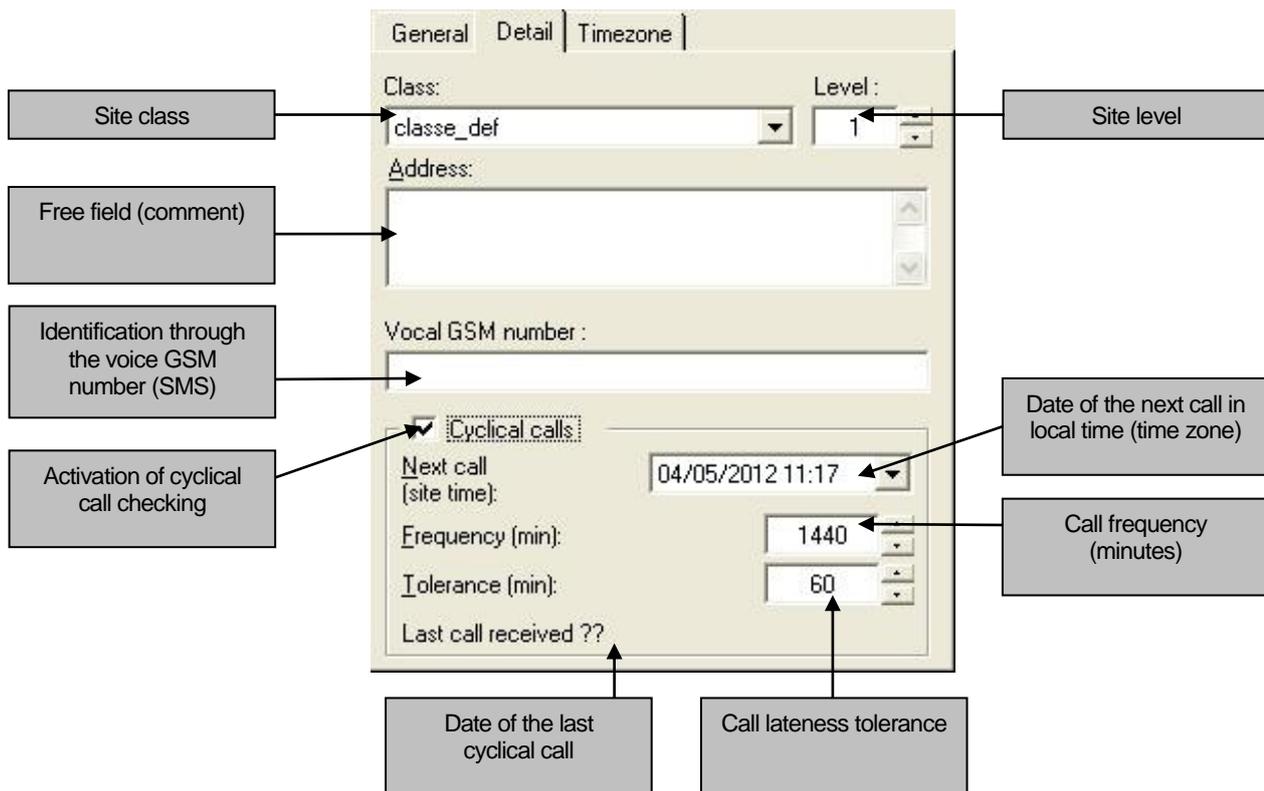
This setting (visible only for sites with IP link) allows you to specify the IP port to be used to access the Web interface of the RTU:

- From the Kerwin navigator – Menu Direct calls / navigator or by clicking on the  button)
- From the Kerwin web pages (KERWEB, KERWIN Web server) where the sites are referenced. For XFLOW type RTU (iRIO, XLRIO...) accessibled on the same network, a link allows direct access to the Web interface of the RTU.

By default the port 80 is used. If a different port was configured on the RTU, check the box and specify the relevant IP port.

7.11.3 Detail tab

This tab is used to configure the cyclical call management parameters and other identification parameters.



### 7.11.3.1 Various parameters

#### 7.11.3.1.1 Site class

This field allows assigning to the site a class chosen among the existing site classes, or none.

#### 7.11.3.1.2 Site level

This field allows assigning to the site a level between 0 and 255, or no level at all.

#### 7.11.3.1.3 Address

Free 50 character field (in which you can enter the site's postal address).

#### 7.11.3.1.4 Vocal GSM number

This field allows the identifying of an SMS by a BRIO / W310 type local unit. You must enter the vocal number of the BRIO / W310's SIM card in this field.

### 7.11.3.2 Cyclical call parameters

Cyclical call management will only function if the "Alarms" option has been activated in the KERWIN key.

Leave a sufficient time difference between the calling times for the different local units to avoid simultaneous calls and therefore the saturation of the master station's receiving lines, which would have two negative consequences:

- Risk of a delay in receiving alarms
- Risk of detecting cyclical call faults

The value of this time difference must therefore be chosen according to the number of receiving lines available. It is also possible to adjust the value of the 'Tolerance' parameter.

#### 7.11.3.2.1 Cyclical calls

This tickable box is used to activate or not activate cyclical call management for the site selected.

#### 7.11.3.2.2 Next call

This field must contain the theoretical date of the site's next cyclical call.

If the timezone option has been activated in the file KERWIN32.CFG and the site is linked to a time zone, you must enter the date in RTU time, in other words that parametered on the RTU. If the RTU is in GMT, it must then enter the GMT date.

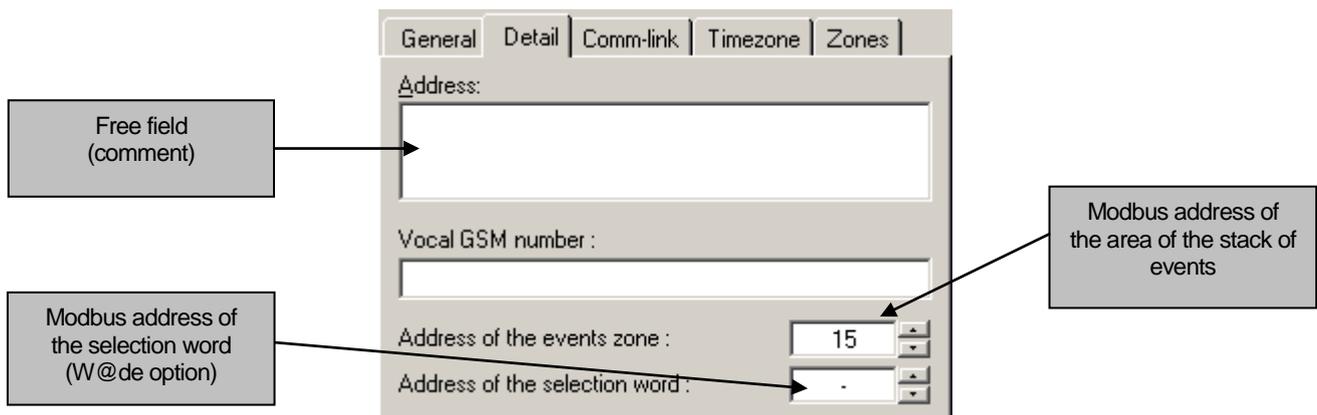
#### 7.11.3.2.3 Frequency

You must enter the call frequency in minutes in this field. This value is useful to KERWIN for automatically calculating the time of the next cyclical call.

#### 7.11.3.2.4 Tolerance

This value, in minutes, allows the defining of the time interval during which the cyclical call must arrive. If the call does not arrive between 'Next call' and 'Next call' + 'Tolerance' a cyclical call fault event is generated by KERWIN

7.11.3.3 Parameters of local units W@DE



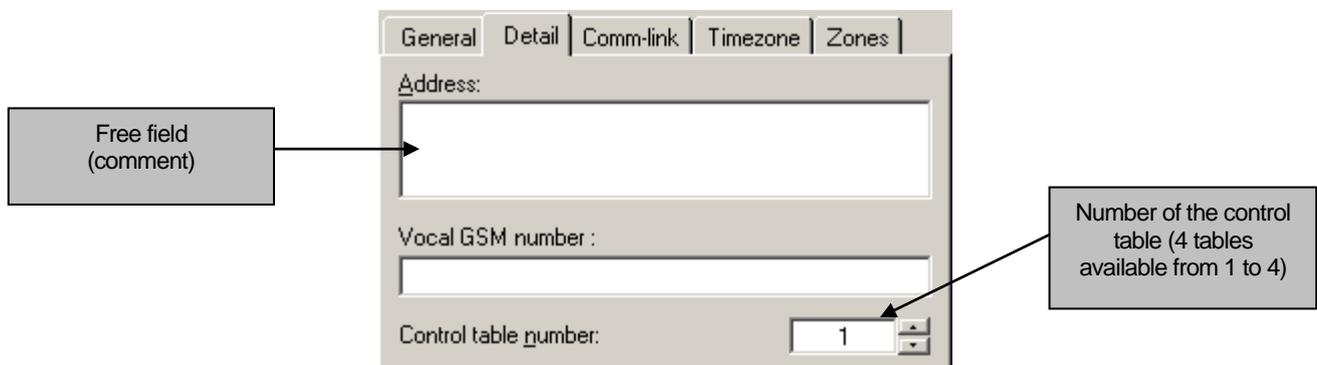
7.11.3.3.1 Address of the events zone

Modbus address of the reading area of the stack of event. The default is 15 but can be changed on the W@de. This is important because it provides access to information allowing KERWIN generate events and files of measures.

7.11.3.3.2 Address of the selection word

Modbus address of the word to unlock for writing. This information depends on the configuration of W@de. Generally it is not configured.

7.11.3.4 Parameters of local units SOFREL



7.11.3.4.1 Control table number

The possible value is between 1 and 4. Used in the case of a unit called by several supervisor. By default, write the value 1. A control table is reserved for each supervisor, as any reading of information in a SOFREL is destructive.

### 7.11.4 Comm-link tab

This tab allows you to configure the communication backups and the call routing.

For this tab to be displayed, you must validate the `backupmodem` option in the `[kerwin manager]` section of the file `KERWIN32.CFG` (see [HMI start-up configuration](#))

The screenshot shows the 'Comm-link' tab in the parametering interface. The following callouts point to specific fields:

- Clip function (RTC, IP, and GPRS)**: Points to the  'Update IP address on incoming connection'.
- Activation of the modem backup**: Points to the  'Backup communications'.
- Backup number**: Points to the 'Phone Number' text input field.
- Backup communication**: Points to the 'Comm-link' dropdown menu.
- Activation of the proxy**: Points to the  'Connection via a proxy site'.
- Identifying of the proxy**: Points to the 'Name of the proxy site' dropdown menu.
- Identifying of the site on the proxy**: Points to the 'Device number on the proxy' spin box.

#### 7.11.4.1 Clip Option

When the "Update phone number on incoming connection" is checked, KERWIN will update the phone number or IP address if it detects a change from the last call. This information is logged in the data server log. This function is very useful in the case of GPRS when IP address of the local unit may change regularly

#### 7.11.4.2 Modem backup parameters

This involves defining a backup link to be used if the main link is no longer functioning. It must of course be possible for the local unit to be called in several different ways, for example by modem and on an IP network. If the main direction is not functioning, the backup direction takes over for 1hr. The main direction is then returned to.

##### 7.11.4.2.1 Backup communication

This tickable box is used to activate, or not activate, the backup.

##### Phone number

Number of the selected site's backup telephone line or IP address

##### 7.11.4.2.2 Comm-link

Choose a communication link for the support of backup communication.

#### 7.11.4.3 Routed connection parameters

This means being able to communicate with a MUC5/MUC9 local unit on one of the communication ports of a TELEFLO local unit (the router).

##### 7.11.4.3.1 Connection via a proxy site

This tickable box is used to activate or not activate this type of connection for the site selected.

##### Name of the proxy site

Choose the name of the router site from the list of sites.

#### 7.11.4.3.2 Device number on the proxy

In this field you must enter the peripheral number of the site selected on the router.

**Note:** The proxy site is a normal site present in the list of sites. A site that uses a proxy connection must have the same type of link as its proxy. Otherwise it will not function.

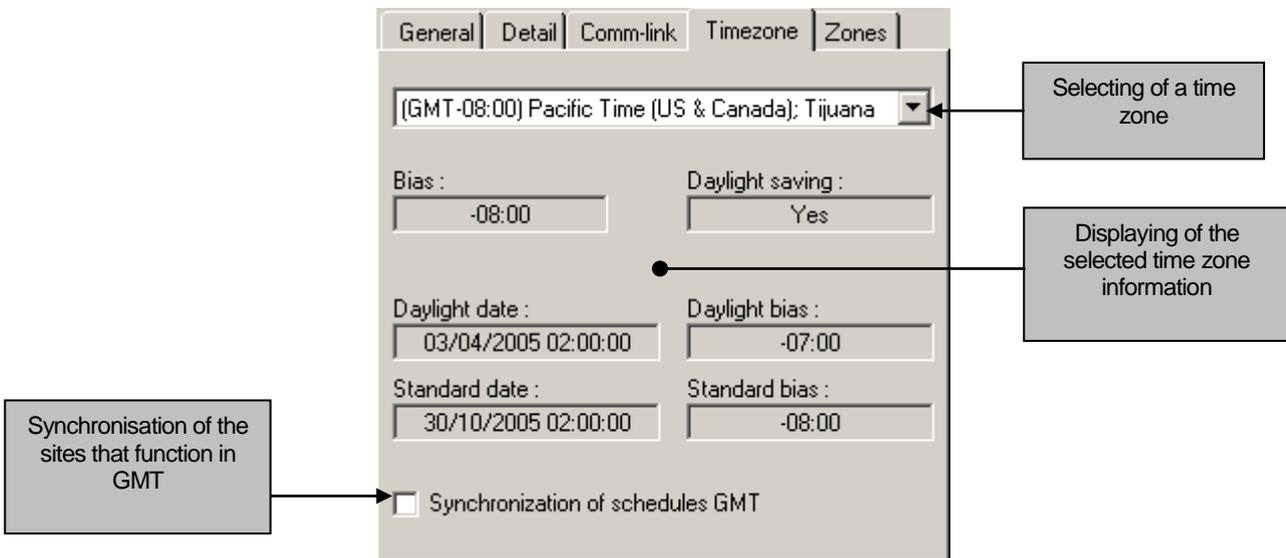
### 7.11.5 Timezone tab

This tab is used to configure your site's time zone.

For the tab to be displayed you must validate the `timezone` option in the `[various]` section of the file `KERWIN32.CFG` (see [HMI start-up configuration](#))

If a site is connected to a time zone, Kerwin

- Resets the site to the local time (or GMT),
- Manages the site's cyclical calls in local time (or GMT),
- Records the date of the instantaneous values at the local time (or GMT).



#### 7.11.5.1.1 List of time zones

Select your site's time zone. KERWIN will then display the information relating to your selection. If your site is in the same time zone as your KERWIN PC, select <None>.

#### 7.11.5.1.2 Synchronization of schedules GMT

Tick this box if your site is configured only to function according to GMT time. Based on the time zone chosen, KERWIN will then perform all the date conversions so that the measurements and alarms are displayed in the site's local time.

The site's clock will be reset to GMT time, however.

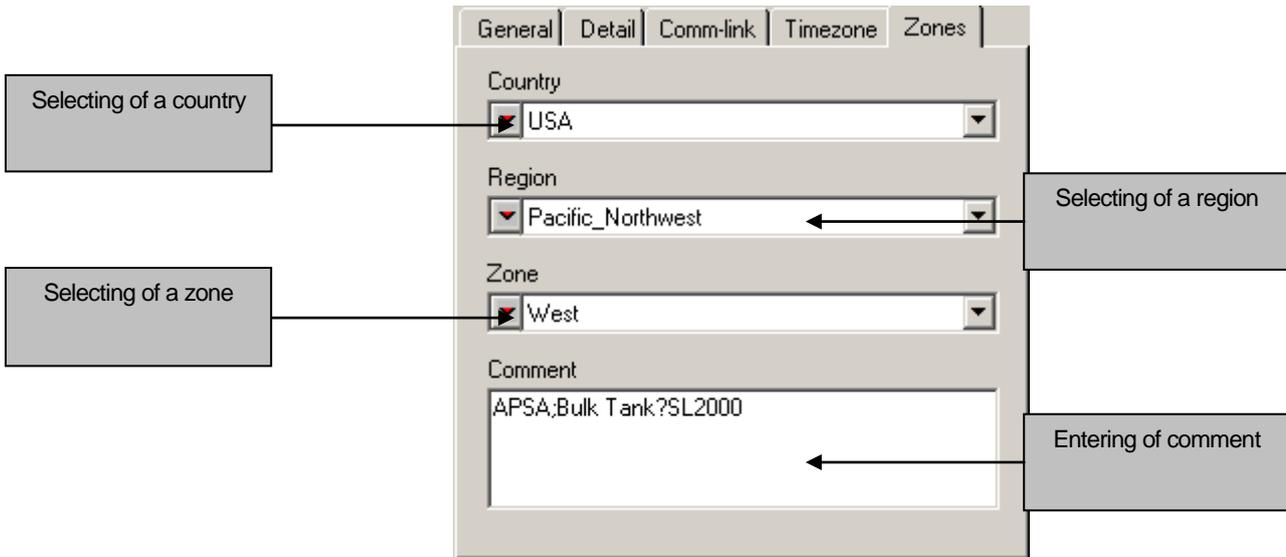
**7.11.6 Zones tab**

This tab is used to configure your site's additional location information.

For the tab to be displayed you must validate the **zones** option in the [kerwin manager] section of the file KERWIN32.CFG (see [HMI start-up configuration](#))

The zones (*Country, Region, and Zone*) are very useful for:

- Sorting the events of the sites belonging to the same zones,
- Launching a call programme for all of a given site group's alarms.



**7.11.6.1.1 Country, Region, Zone**

Select the information of your choice from the lists presented.

You can create and modify location information using this tab: click on the button to display a scrolling menu:

- To create a new element in the list.
- To modify the selected element's label.

You can also manage these lists directly via the Parametering / Sectors menu

**7.11.6.1.2 Comment**

Free 50 character field

**7.11.7 Copy-Paste a Site**

ACCESS: EDITION / COPY|PASTE OR CTRL+C|CTRL+V

You can create a new site by duplication of an existing site. For it you have to make an action of copy/paste. Display the window of configuration of sites. Select the site to be duplicated. In the Edition menu, select the action of Copy. In the Edition menu, select the action of Paste. A new site appears in the list. The site name is the one of the original followed by a unique digital key. This action also duplicates variables and files of the site, but not the data.

7.12 WORKGROUPS

A workgroup allows you to group various site groups together to define a visibility zone. The workgroup will then be allocated to one or several users. This is a very easy way to group different users together according to different work and visibility profiles. Using KERWIN it is possible to define a set of workgroups each defined by:

- A name
- A set of existing sectors

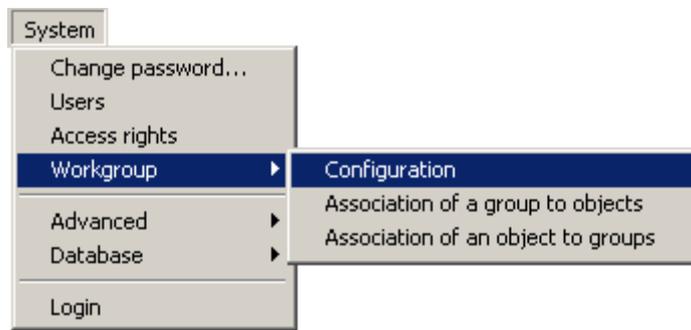
7.12.1 Configuration

Workgroups are configured in 2 stages:

- Defining of the site group names and filtering criteria
- Allocating of the workgroup to one or several users

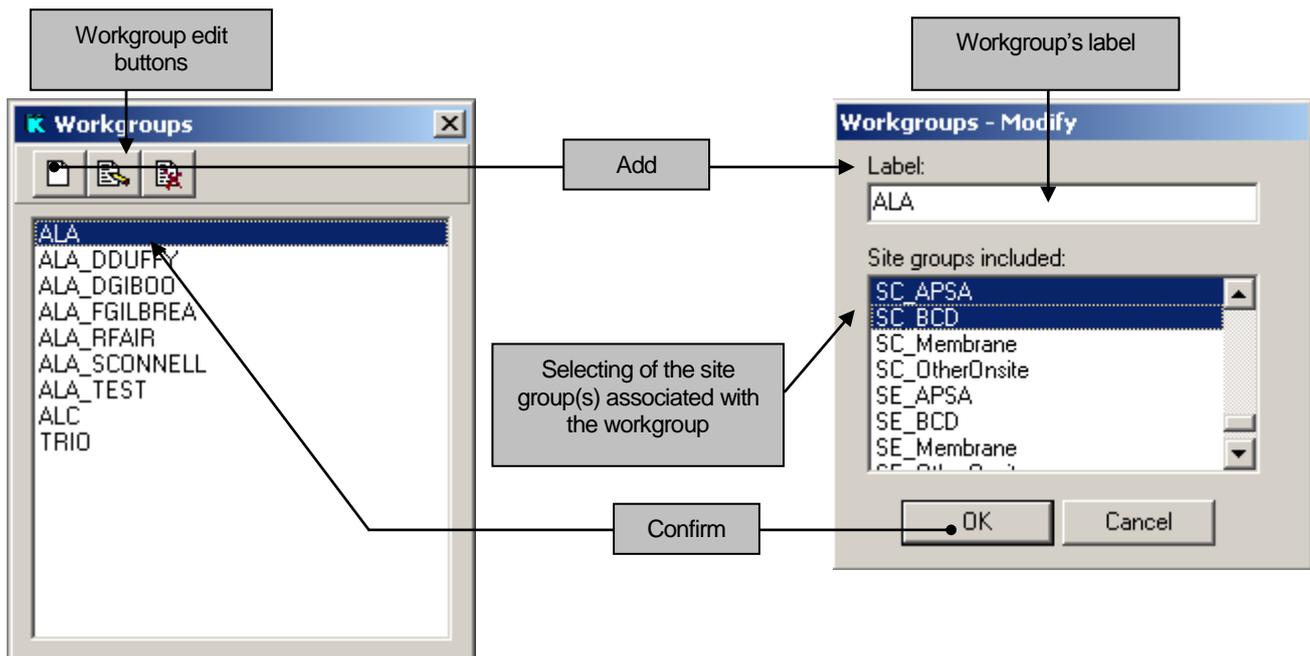
7.12.1.1 Configuring the workgroup

Access: System / Workgroup / Configuration

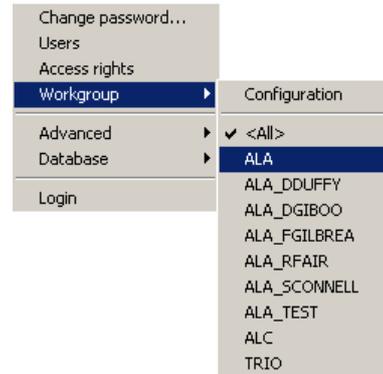


**Note:** Only a user to whom a workgroup has not been allocated may view, configure and delete workgroups.

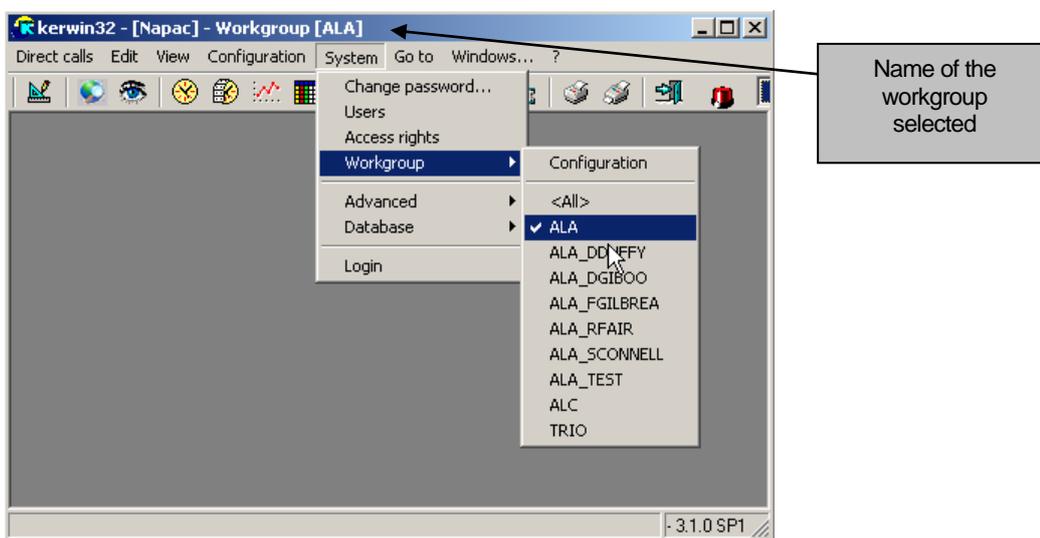
The forms are displayed as below:



Once it has been parametered, the workgroup is added to the list in the “System / Workgroups” menu.

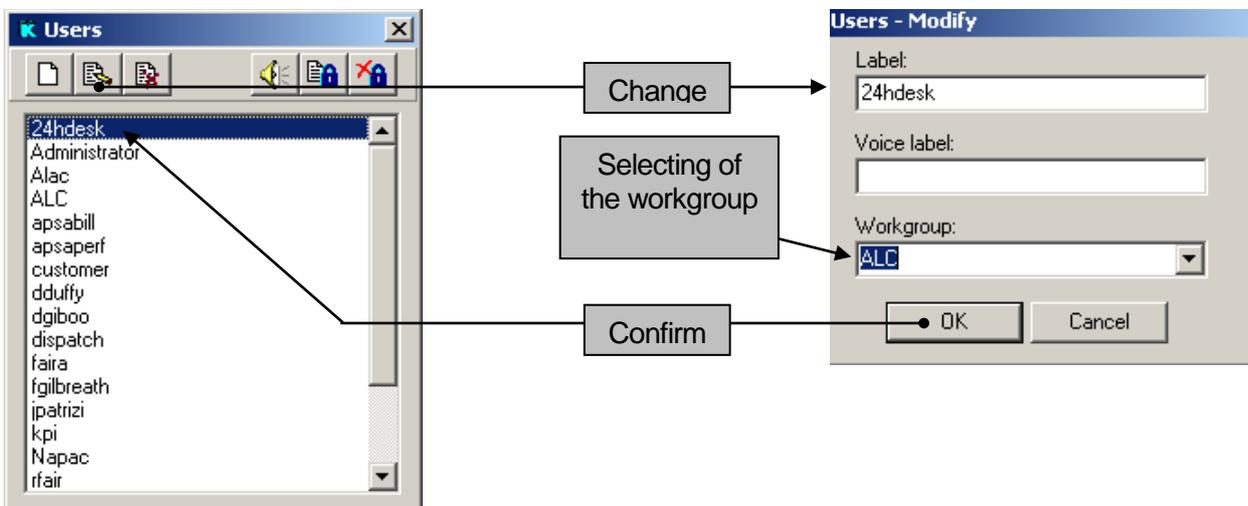


Users that do not belong to a workgroup can view all the sites and all the elements attached to a specific workgroup in their entirety. They can therefore place themselves in the environment of a particular workgroup. To do this, select a workgroup as below:

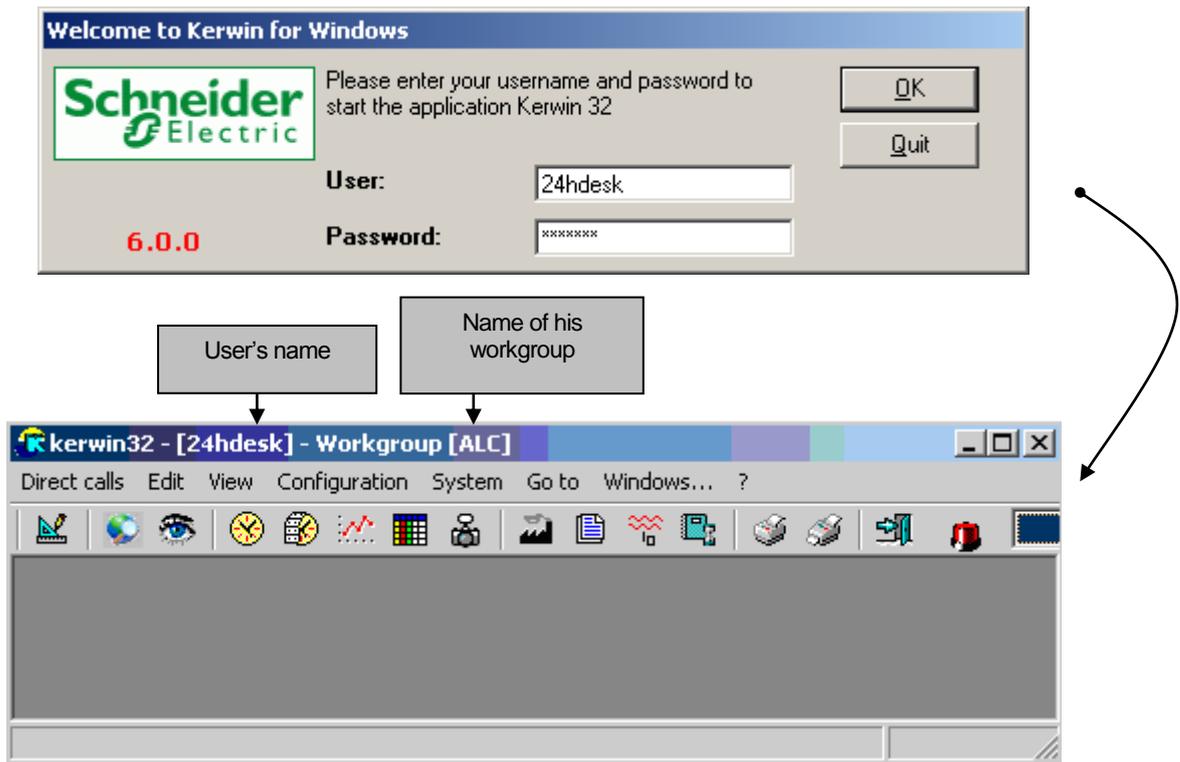


**7.12.1.2 Allocating the workgroup to users**

To allocate a workgroup to one or several users, select a user from the configuration window and click on the change button. Next select the workgroup required from the list and confirm by clicking on the [OK] button.



When this user accesses KERWIN, he will be allocated and restricted to his workgroup.



**7.12.2 Summary of the visibility zones**

**7.12.2.1 Items that do not appear for users belonging to a workgroup**

“Configuration” menu	“System” menu	Task scheduler
<ul style="list-style-type: none"> <li>• Comm-links</li> <li>• Site groups</li> <li>• Classes</li> </ul>	<ul style="list-style-type: none"> <li>• Users</li> <li>• Workgroups</li> </ul>	<ul style="list-style-type: none"> <li>• Archiving actions</li> <li>• Saving actions</li> </ul>

**7.12.2.2 Elements associated with a workgroup**

Through site group selection	Allocated to a group
<ul style="list-style-type: none"> <li>• Sites</li> <li>• Variables</li> <li>• Files</li> <li>• Events</li> <li>• Snapshot</li> </ul>	<ul style="list-style-type: none"> <li>• Spreadsheet</li> <li>• Filecharter</li> <li>• Time Period group</li> <li>• Calendars                             <ul style="list-style-type: none"> <li>○ Daily</li> <li>○ Weekly</li> <li>○ Yearly</li> </ul> </li> <li>• Alerts                             <ul style="list-style-type: none"> <li>○ Call routes</li> <li>○ Call procedures</li> <li>○ Call programmes</li> </ul> </li> <li>• Data filters</li> <li>• Synoptic</li> <li>• Graph</li> <li>• Scheduler</li> </ul>

**7.12.2.3 Elements common to all workgroups**

<ul style="list-style-type: none"> <li>• Category</li> <li>• Logical labels</li> <li>• Units</li> <li>• Archives</li> </ul>
---

### 7.12.3 Sharing objects in various workgroup

Starting with version 5.0 of Kerwin, it is possible to share certain object in different workgroups. For example a graph can be operated by two people belonging to different workgroups.

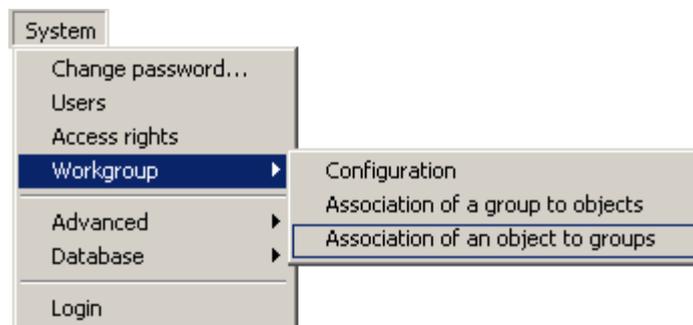
Shared objects among several workgroups results in a filter in terms of content objects (variables for a graphic variables, sites, dashboards, etc... For synoptic objects & sequencer ...) so that the user sees only what is allowed to see.

The dashboards are an exception to the rule: an entire dashboard is visible when a user has the right to see it. So there is no filter for the content on this object.

Regarding editing & recording of the contents of an object, a user can do (edit / delete) and what is accessible. However, it is advisable to edit the shared objects with a user that has access to all workgroups; this is particularly true for editing Synoptic.

#### 7.12.3.1 Linking an object to several workgroups

To attach an object of exploitation – **synoptic, chart, dashboard & object of the scheduler**, and the **operating pages** (Kerweb) - one or more working groups, we call the window that is accessible from menu *Maintenance / Workgroup Association of an object to groups*

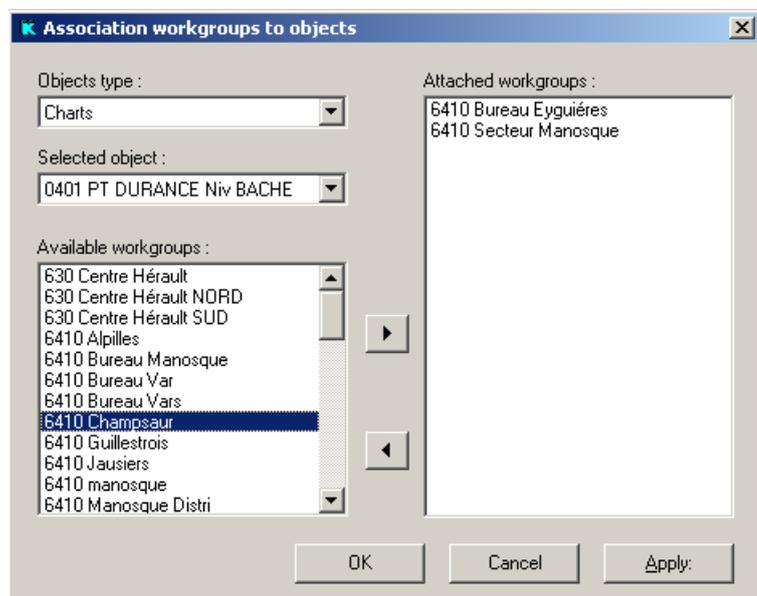


The window that appears will be as follows:

The principle of this window is quite the same of this of the window that associates a variable to a chart: a double click on an element of available workgroups links selected workgroup to the selected object.

Double-clicking on an element of attached workgroups removes the link between the selected workgroup and the selected object.

The user can also select multiple workgroups and transfer them from one list to the other through the 2 arrows "buttons" located in the center of the window

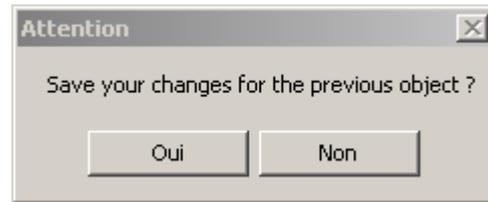


A click on "OK" button valid changes and close the window.

Clicking **Cancel** closes the window without saving changes of the user.

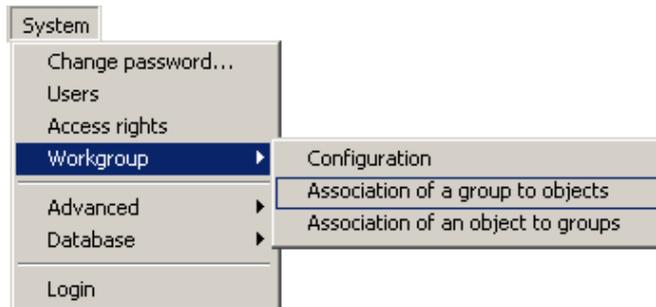
A click on **Apply** validates changes.

If a user has made changes on an object and selects a new object without having clicked on Apply, a window appears to ask him if he wishes to validate its changes or not.



7.12.3.2 Linking a workgroup to several objects

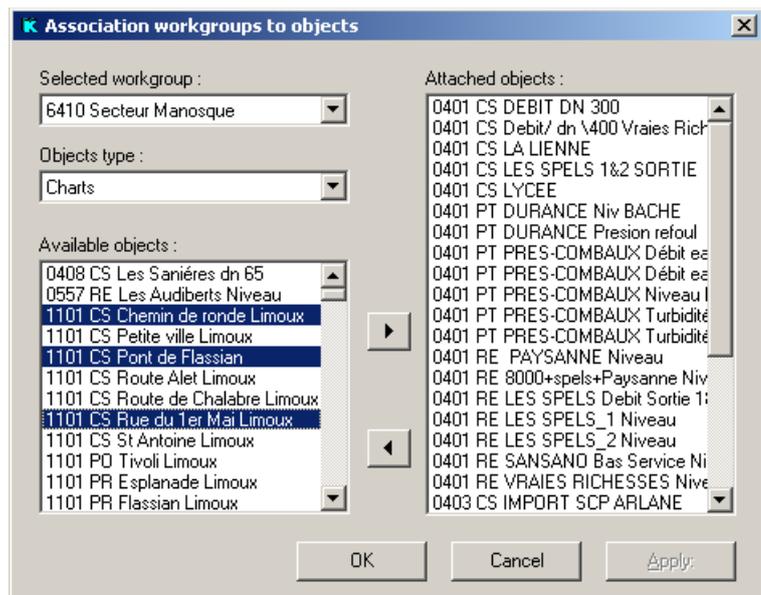
Another window to associate objects to workgroups is also available via *System / Workgroup / Association of a group to objects*.



This window allows the user to select a workgroup, and a type of object.

The user can then (un-)link in one click one or more objects of the selected type to the workgroup previously selected.

The window that appears will be as follows:



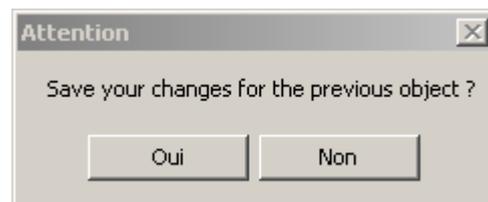
A double click on an of available object links selected object to the selected workgroup.

Double-clicking on an attached object removes the link between the selected object and the selected workgroup.

The user can also select multiple objects and transfer them from one list to the other through the 2 arrows "buttons" located in the center of the window

A click on "OK" button valid changes and close the window.  
 Clicking **Cancel** closes the window without saving changes of the user.  
 A click on **Apply** validates changes.

If a user has made changes on a workgroup and selects a new workgroup without having clicked on Apply, a window appears to ask him if he wishes to validate its changes or not.



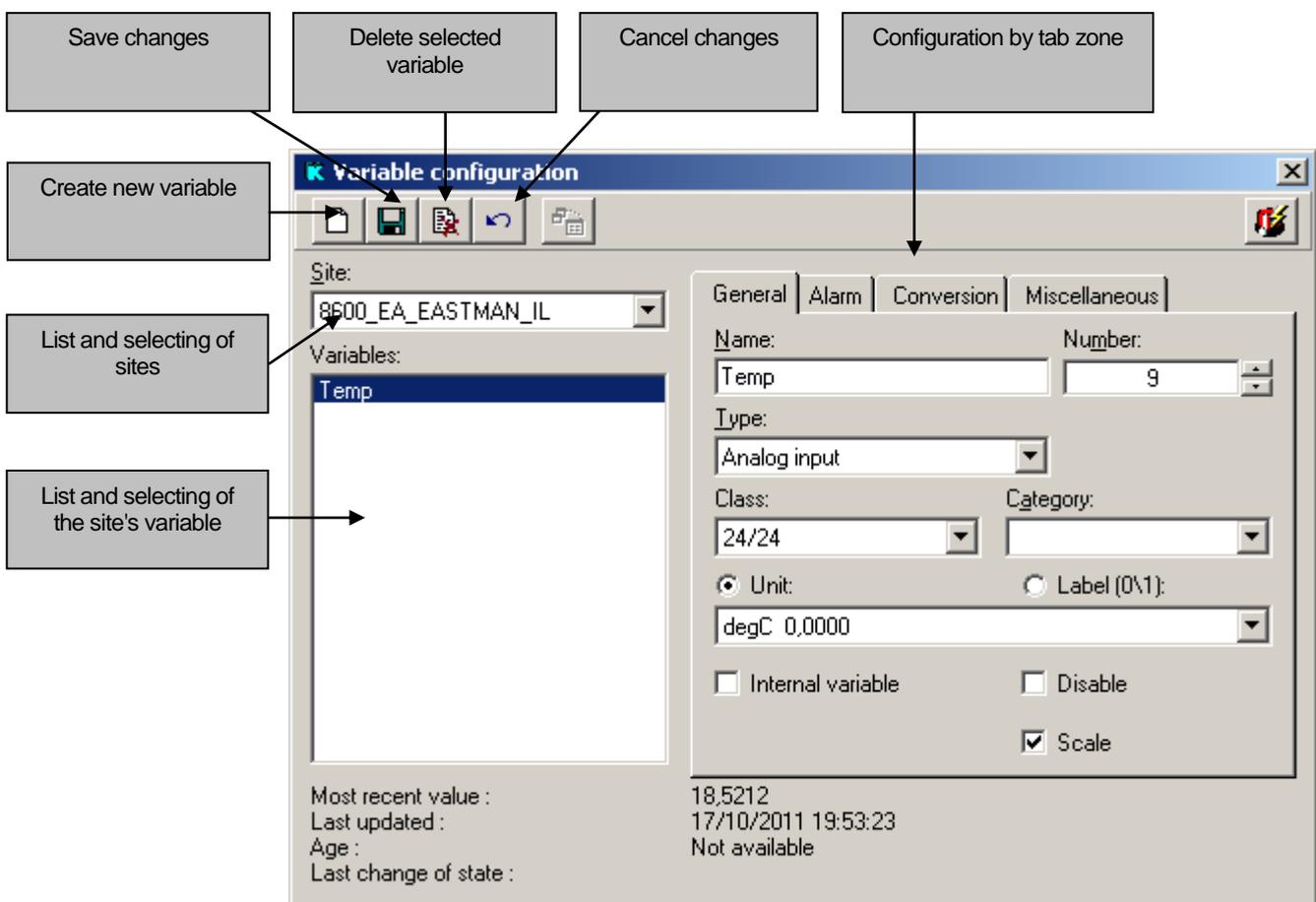
## 7.13 VARIABLES

This screen is used to declare and configure the different variables of a site remotely managed by KERWIN. This operation must usually be carried out, for Schneider Electric Telecontrol local units, via a [“self configuration request”](#).

It is useful, however, to be able to modify the parameters of a variable, in particular its name and its unit. You may also want to associate it with a type to use it in a model, and a class to filter events.

This screen is also used to declare internal variables. These variables perform operations on the data retrieved from mathematical formulae.

Access: Configuration / Variables



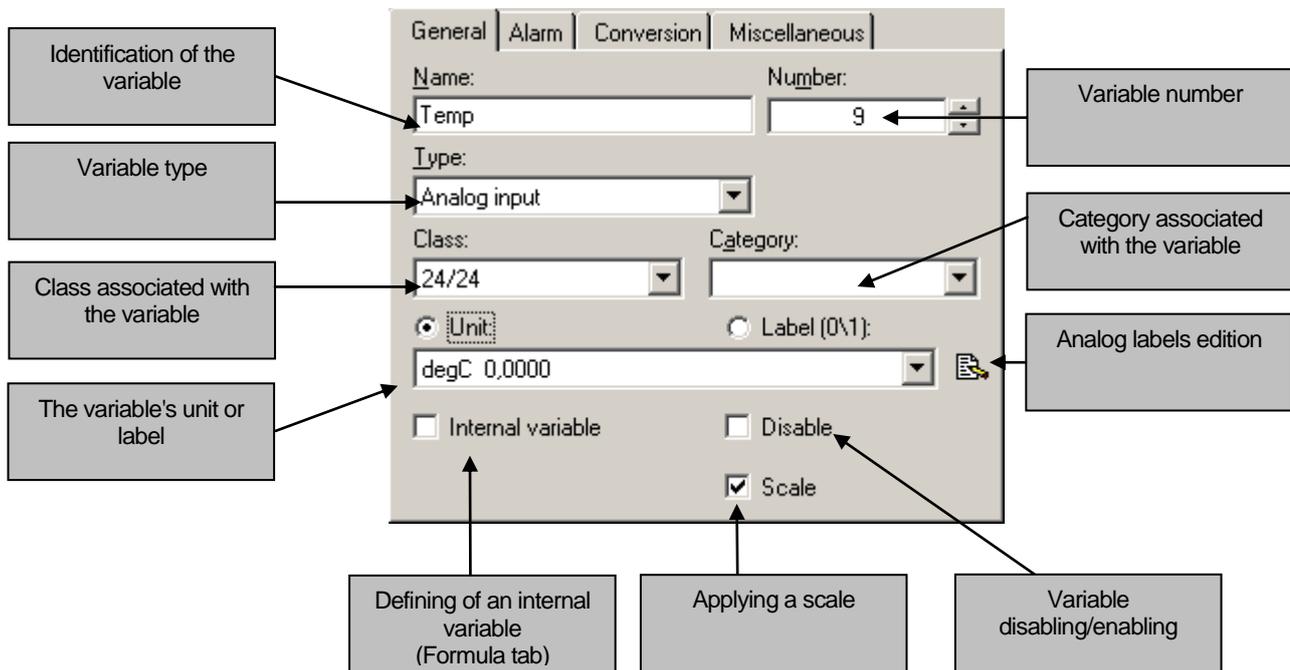
The configuration by tab zone allows the entering of a variable's various parameters.

The tabs are:

- **General:** general tab parameters
- **Alarm:** modifying of the event parameters relating to the variable.
- **Conversion:** application of a scaling
- **Miscellaneous:** displaying of the label transmitted and voice label
- **Formula:** parameter of an internal variable type variable. See [Internal variables](#).

### 7.13.1 General tab

In this tab you can configure the identification parameters of one of the local unit's variables.



#### 7.13.1.1 Common parameters

##### 7.13.1.1.1 Name

Name displayed (60 characters)

##### 7.13.1.1.2 Number

In the case of a PHENIX / FLOWTEL type local unit, this number corresponds to the line number in the table of variables. For a MUC5 / MUC9 type local unit, this number corresponds to the variable's number within the type (logic, analogue input, etc)

For the field to be permanently visible you must validate the `visinum` option in the `[kerwin manager]` section of the file `KERWIN32.CFG` (see [HMI start-up configuration](#)).

##### 7.13.1.1.3 Type

Sets the type of the variable. The types available depend on the type of local unit.

- Time meter
- Pulse meter
- Meter
- DJU
- Analog input
- Digital input
- Analog output
- Digital output

#### 7.13.1.1.4 Class

Allows a class to be associated with the variable. You can create variables using the "Variable Class" form, which is displayed via the Parametering / Classes / Variables menu.

You can then filter your events based on this class.

#### 7.13.1.1.5 Category

Allows a category to be associated with the variable. You can create category via the "Variable categories" form, which is displayed via the Parametering / Categories / Variables menu.

You can then use these types when models are created. See Parametering / Models.

#### 7.13.1.1.6 Unit / Label

Allows the associating of a unit or label with the variable. Allocating is automatic after autoconfiguration.

You can create new units using the "Units" form, which is displayed via the Parametering / Units menu.

Depending on the selected option (Unit or Label), the list will propose the available choices for the selected variable.

Logical variables can only be associated with logical labels.

Other variable types can be associated with units and analog labels.

You can create new logical labels via the "Logical label" form, which is displayed using the Parametering / Logical label menu.

You can create new analog labels via the "Analog label" form, which is displayed using the Parametering / Analog label menu.

#### 7.13.1.1.7 Analog label edition

Open the analog labels configuration form for the selected label.

This form is the same than the one opened using the Parametering / Analog label menu, then editing a label.

#### 7.13.1.1.8 Internal variable

This tickable box allows the creating of an internal variable. The variable therefore becomes virtual, in the sense that it is not linked to the local unit. The "Formula" tab will appear allowing a calculation formula to be parametered.

See [Parametering / Internal variables](#).

#### 7.13.1.1.9 Disabled

If a variable is disabled, the events relating to this variable are ignored and its instantaneous value is no longer updated.

If the event generating option `disable_var_evt` is activated in the file KERWIN32.CFG (see [Data server start-up configuration](#), [alarm manager] section), a minor fault event is generated when the variable is disabled. The event returns to normal when the variable is reenabled.

#### 7.13.1.1.10 Scale

This option is visible when the variable is of type Analog or Meter. Check this option shows the Conversion tab to define the scaled type Min / Max and Slope / Offset.

7.13.1.2 Parameters specific to W@DE

General	Alarm	Miscellaneous
Name:	Number:	
VAR1	212	
Type:	Modbus type :	
Analog input	leee32 (h/l)	
Class:	Categ	
	<None> leee32 (h/l) leee32 (l/h) Int16 Int32 (h/l) Int32 (l/h)	
Unit:	A 0.00	
<input type="checkbox"/> Internal variable	<input type="checkbox"/> Disable	<input type="checkbox"/> Scale

General	Alarm	Miscellaneous
Name:	Number:	
METER1	510	
Type:	Modbus type :	
Meter		
Class:	Categ	
	<None> Word32 (h/l) Word32 (l/h)	
Unit:		
<input type="checkbox"/> Internal variable	<input type="checkbox"/> Disable	<input type="checkbox"/> Scale

General	Alarm	Miscellaneous
Name:	Number:	
DI800	800	
Type:	Modbus type :	
Digital input	Simple	
Class:	Categ	
	<None> Double Simple	
Label (0\1):	Inactive\Active	
<input type="checkbox"/> Internal variable	<input type="checkbox"/> Disable	<input type="checkbox"/> Reverse

7.13.1.2.1 Number

The number corresponds to the address of the variable in the memory of W@de. For variables and analog meters, this number is an address in words. For logical variables, this number is an address in bits.

7.13.1.2.2 Modbus Type

Allow you to define the modbus format of the variable. This format depends on the type

Analog	Digital	Meter
leee32 (h / l)	Simple	Word32 (h / l)
leee32 (l / h)	Double	Word32 (l / h)
Int16		
Int32 (h / l)		
Int32 (l / h)		

**7.13.1.3 Parameters specific for Sofrel protocol – Lacbus**

The variable types for a lacbus RTU are reduced to 4 types:

- Digital input
- Digital output
- Analog input
- Analog output

Note: Counters should be configured as 'Analog input'.

The lacbus number (modbus address) is limited to 255. The perimeter is equivalent to the Sofrel ID1 with a range of (0-65535). The Sofrel ID2 is not used by Kerwin.

When writing a value to a Digital or analog output the 'lock' will be set. Writing a (counter) value to a Analog input does not set the 'lock'.

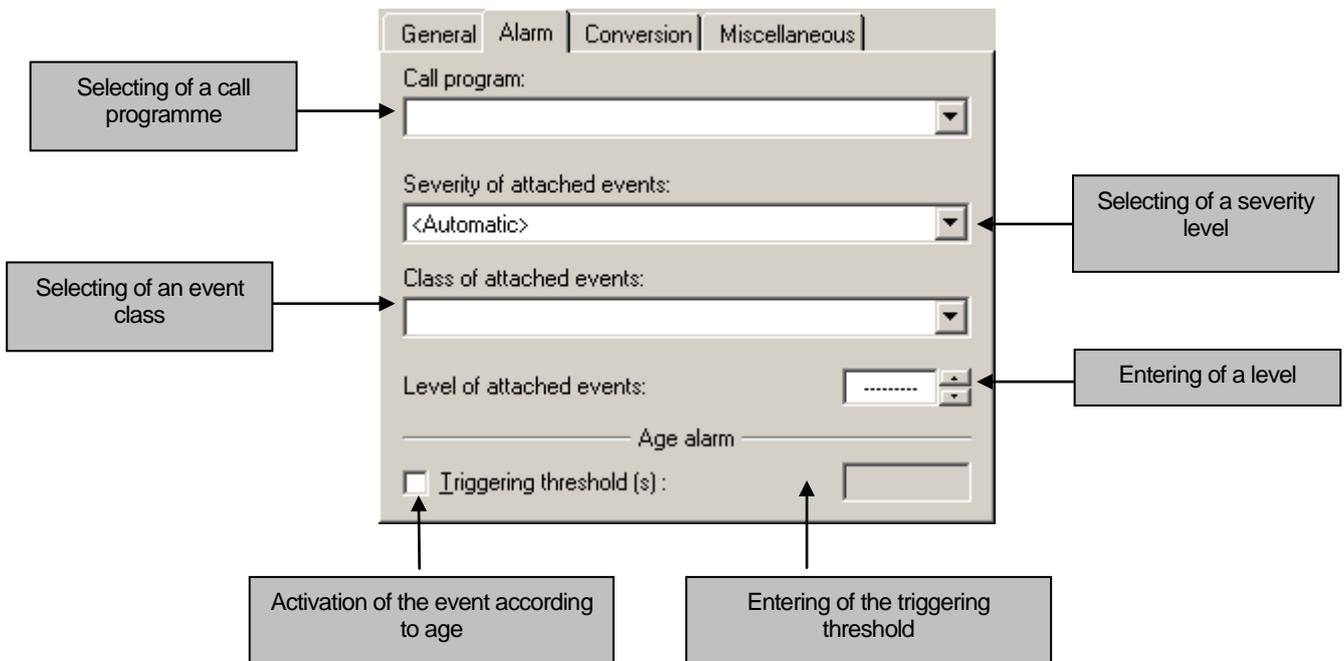
Note : On an incoming call with a protocol configuration error (for example a Kerwin device configured with protocol connected to a Sofbus RTU) the historical datas will be read but will not be acknowledged, neither be integrated into Kerwin. In this case the historical data will be lost (note: you still can read the historical data using another table number).

**7.13.2 Alarm tab**

This tab is used to

- Modify the default behaviour of the call programmes,
- Generate an event if a logical variable (virtual or actual) changes status,
- Modify the properties of the events connected with this variable,
- Configure the generating of an alarm if a value reaches a certain age.

All these parameters are optional.



**7.13.2.1 Alert parameter**

**7.13.2.1.1 Call program**

If a call program is selected and an event connected with this variable occurs, the program is explicitly launched without the need for selection based on the alert criteria.

**7.13.2.2 Associated event parameters**

**7.13.2.2.1 Severity of the attached events**

To generate an event when a logical variable changes status, or modify an event on an analogue variable, you must parameter this field with a value different from <automatic> or empty.

- |                        |                                     |
|------------------------|-------------------------------------|
| • <automatic> or empty | No event modification or generation |
| • Critical             | The event will be critical          |
| • Minor                | The event will be minor             |
| • Info                 | The event will be informative       |

**7.13.2.2.2 Attached event class**

Allows a class to be associated with the event generated.

You can create classes using the "Event Classes" form, which is displayed using the Configuration / Classes / Alarms menu.

You can filter your events on the basis of this class.

### 7.13.2.2.3 Attached event level

Used to specify a level. A level is a numeric value between 0 and 255. You can use the level to filter your events and create alert criteria.

### 7.13.2.3 Age alarm parameter

This event may only be generated for local units that have age information. These are TELEFLO, PHENIX / FLOWTEL, iRIO. The age tells you how long it has been since a value was refreshed on the local unit. KERWIN can generate an event following the reading of the site's instantaneous values, if the age of a variable's value exceeds a certain threshold.

#### 7.13.2.3.1 Triggering threshold

You must tick the box and enter the threshold value.

### 7.13.3 Miscellaneous tab

This tab is used to

- Display the label transmitted,
- Enter a voice label that will be used during a voice session.

The screenshot shows the 'Miscellaneous' tab of a configuration window. It contains the following elements:

- RTU variable name:** A text input field containing 'Temp1'. A callout box points to it with the text 'Actual name of the variable on the local unit'.
- Name of the peripheral:** A dropdown menu showing 'DEVModbus'. A callout box points to it with the text 'Name of the peripheral for the variable'.
- Min and Max Thresholds:** A section with two input boxes labeled 'Min:' and 'Max:'. A callout box points to this section with the text 'Information threshold min and max (For graphs)'.
- OPC Publishing:** A checkbox that is currently unchecked. A callout box points to it with the text 'Allow the variable to be visible for OPC customers'.

#### 7.13.3.1.1 RTU variable name

This label represents the actual name of a variable on the local unit at the end of the automatic configuration phase (30 characters maximum).

#### 7.13.3.1.2 Peripheral name

This label represents the peripheral name for a variable (20 characters maximum).

#### 7.13.3.1.3 Voice label

This field only appears if VOC ports have been parametered in the file KERWIN32.CFG (see [Data server start-up configuration](#), [kerwin manager] section).

In this field you can enter the text identifying your variable when listening to a voice message.

#### 7.13.3.1.4 Min et Max Thresholds

This is information that can be reused automatically when setting the axes of a graph. (See properties of graphics)

#### 7.13.3.1.5 OPC Publishing

This checkbox is useful only if the Dongle key possesses an option OPC DA or HDA and allows to define if the variable is visible or not by OPC customers.

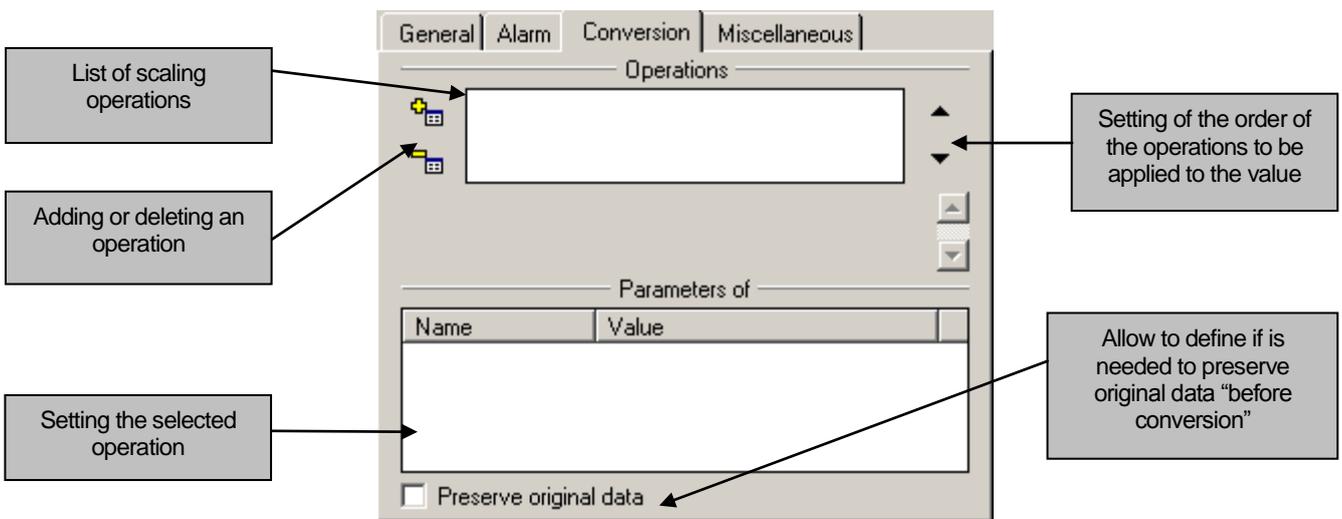
**7.13.4 Conversion tab**

This tab allows you to define one or more scaled, which will be applied to the value of the variable before recording in the database. For this tab is visible, it is necessary that the box 'scale' is checked on the "General" tab.

The scaling is very useful when the local unit sends its data on a limited number of bits. For example, local units SOFREL encode the analog with 16-bit words.

Scaling applies :

- On the instantaneous values
- On the measures
- On the events and alarms



**7.13.4.1.1 Adding an operation**

To add an operation you must click on the button 

The list of available operations is displayed.

You can select multiple operations, or select the same operation several times.

To confirm your selection click the [OK] button

The selected operations will be added to the list of "Operations" of the Tab "Conversion".



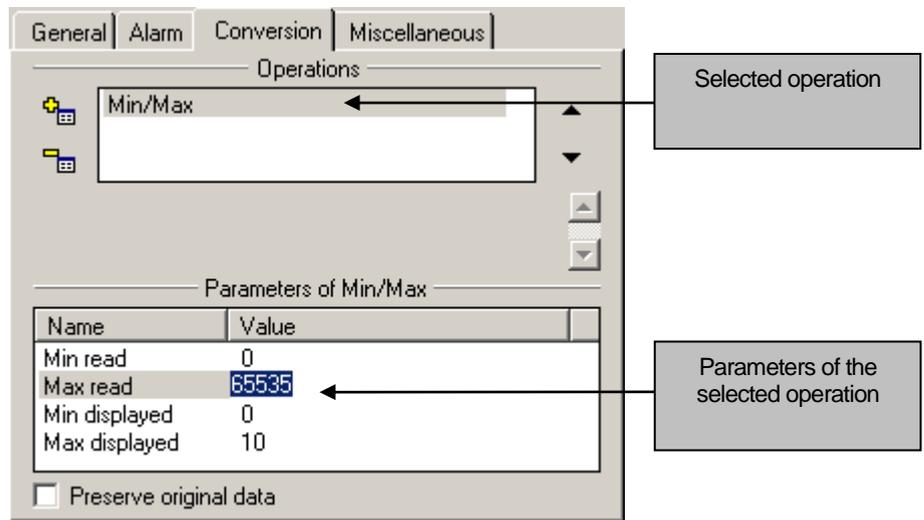
7.13.4.1.2 *Setting an operation*

Select one operation in list "Operations". The parameters of this operation will appear in section "Parameters" of the tab.

To change a parameter value, simply click on it. Immediately, the value selected is highlighted. You can then modify or replace it with a new value.

To validate your entry, you must press [Enter]

Remember to save your changes : 



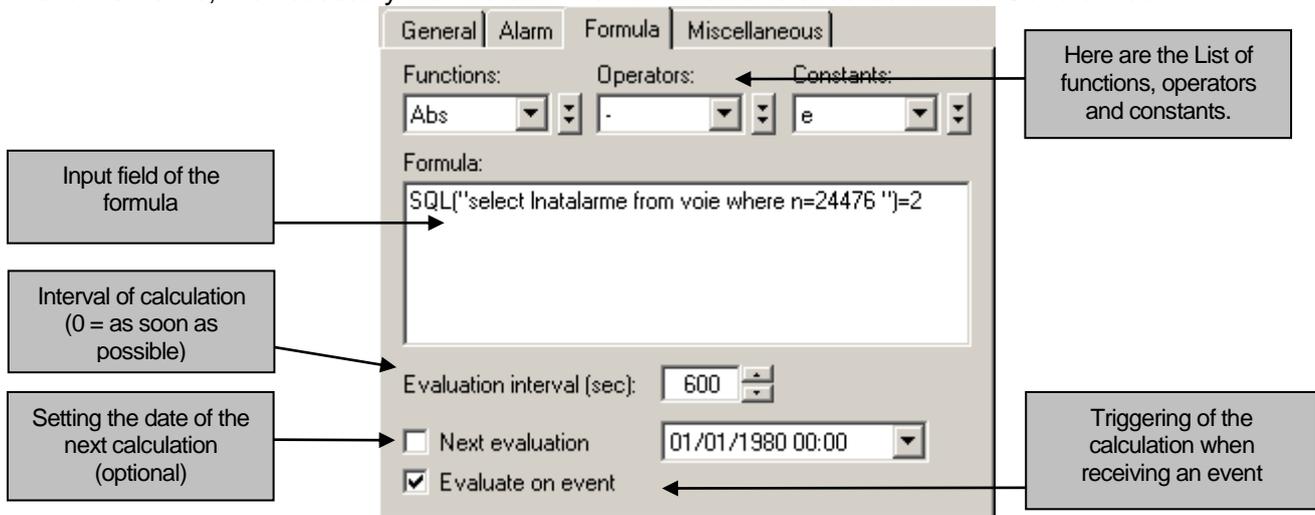
7.13.4.1.3 *Preserve original data*

By checking the box "Preserve original data" it is possible to store in the database the raw data (or original data), that is, the value before conversion as it was read on the RTU.

This can be useful when conversion operations evolve. In this case the stored original values can be converted again. (This function is available from Web site only)

### 7.13.5 Formula tab

This tab allows you to define an internal variable with one formula. This formula is evaluated periodically. For this tab is visible, it is necessary that the box 'internal variable' is checked on the "General" tab



See next page: Internal variables.

### 7.13.6 Copy-paste a variable

ACCESS: EDITION / COPY|PASTE OR CTRL+C|CTRL+V

You can create a new variable by duplication of an existing variable. For it you have to make an action of copy/paste. Display the window of configuration of variables. Select the variable to be duplicated. In the Edition menu, select the action of Copy. In the Edition menu, select the action of Paste. A new variable appears in the list. The variable name is the original followed by a unique digital key. This action also duplicates the conversions and the formulae of calculation.

## 7.14 INTERNAL VARIABLES

Kerwin allows the enriching of the information retrieved from remotely managed sites through the use of internal variables.

These variables are information produced by Kerwin from expressions in ordinary mathematical language (calculation formulae) that considerably enlarge the possibilities offered by your monitoring system.

Creating of summary alarms covering several variables, sites or sectors  
System alarms (disk full, etc)  
Operations between variables

The limitations posed by internal variables relate to the generally deferred retrieval of data originating from your remotely managed sites; this means that, for remote sites without a permanent link with Kerwin, it is not worthwhile defining an internal variable representing the sum of the variables originating from different sites and recording variations in this variable in an internal file. To do this it is necessary to have a permanent link (serial or Ethernet, for example) with the sites in question.

However, Kerwin gives you the chance to create this function for your remote sites, either by means of management charts, or by defining sophisticated SQL queries executed by the sequencer. This last solution is beyond the scope of this user manual; Schneider Electric Telecontrol's customer services ([hotline.telecontrol@schneider-electric.com](mailto:hotline.telecontrol@schneider-electric.com) Kerwin-related issues) can be contacted about these advanced functions, however, as part of the coHMlssioning services provided or your maintenance contract.

### 7.14.1 Configuration

Internal variables are defined using the variable configuration form; they are attached either to traditional sites (corresponding to local units), or to INTERNAL type sites. These are virtual sites that have no physical existence, but allow you to logically group together the internal variables created by Kerwin:

The screenshot shows a configuration window with four tabs: 'General', 'Detail', 'Timezone', and 'Zones'. The 'General' tab is active. It contains the following fields:

- Name:** A text input field containing the text 'CALCUL'.
- RTU type:** A dropdown menu with 'INTERNAL' selected.
- Site group:** A dropdown menu with a red triangle icon visible.

For an internal site, it is possible to define its name and sector, if it has one (or no sector).

The [variable configuration](#) form for an internal variable takes the following form: an additional tab ("formula") appears; moreover, the new variable has the attributes of a traditional variable. In particular, you can disable it by means of the tickable box; in this last case, it will no longer be produced by Kerwin. The "Last value read" and "Last reading date" fields contain, respectively, the last value produced by Kerwin and the date (to the second) when the internal variable last changed value.

The fields specific to the internal variables are the following:

#### 7.14.1.1.1 *Formula*

This is a text field that contains the formula in plain text used to produce the internal variable; assistants are available above this text zone in the form of lists presenting the functions, operators and constants available.

#### 7.14.1.1.2 *Evaluationonn interval*

This is the variable production time interval in seconds; when it equals zero, Kerwin produces the variable whenever possible (a few ms to several seconds depending on the total number of internal variables defined).

#### 7.14.1.1.3 *Next evaluation*

Used to specify the date on which the calculation must be performed. This date is then automatically incremented by the value of the calculation interval. This is optional

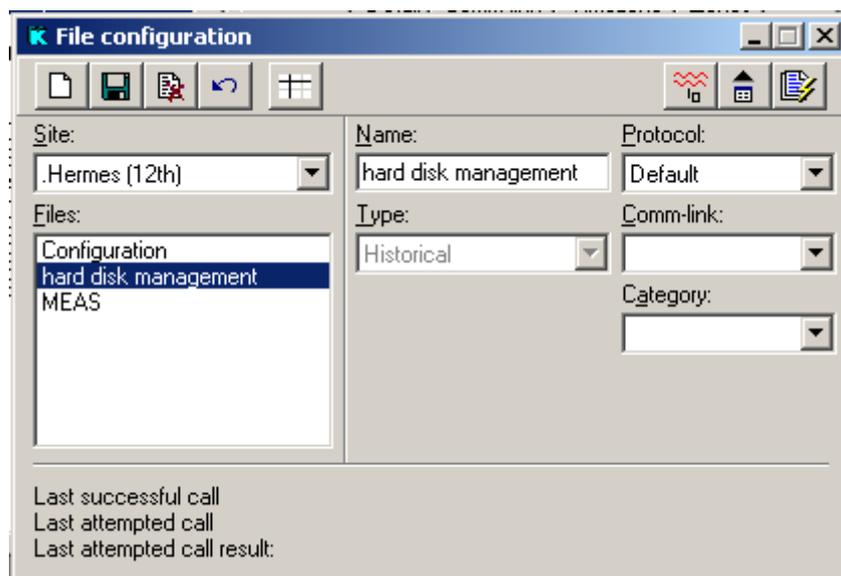
#### 7.14.1.1.4 *Evaluation on event*

Tickable box used to indicate that you wish to update the variable on each new event; this possibility is used, in particular, for internal variables performing summaries or counting alarms, like the one presented as an example that calculates the number of current faults for the site, whose name is "IDINI". The variable continues to be evaluated every interval of time.

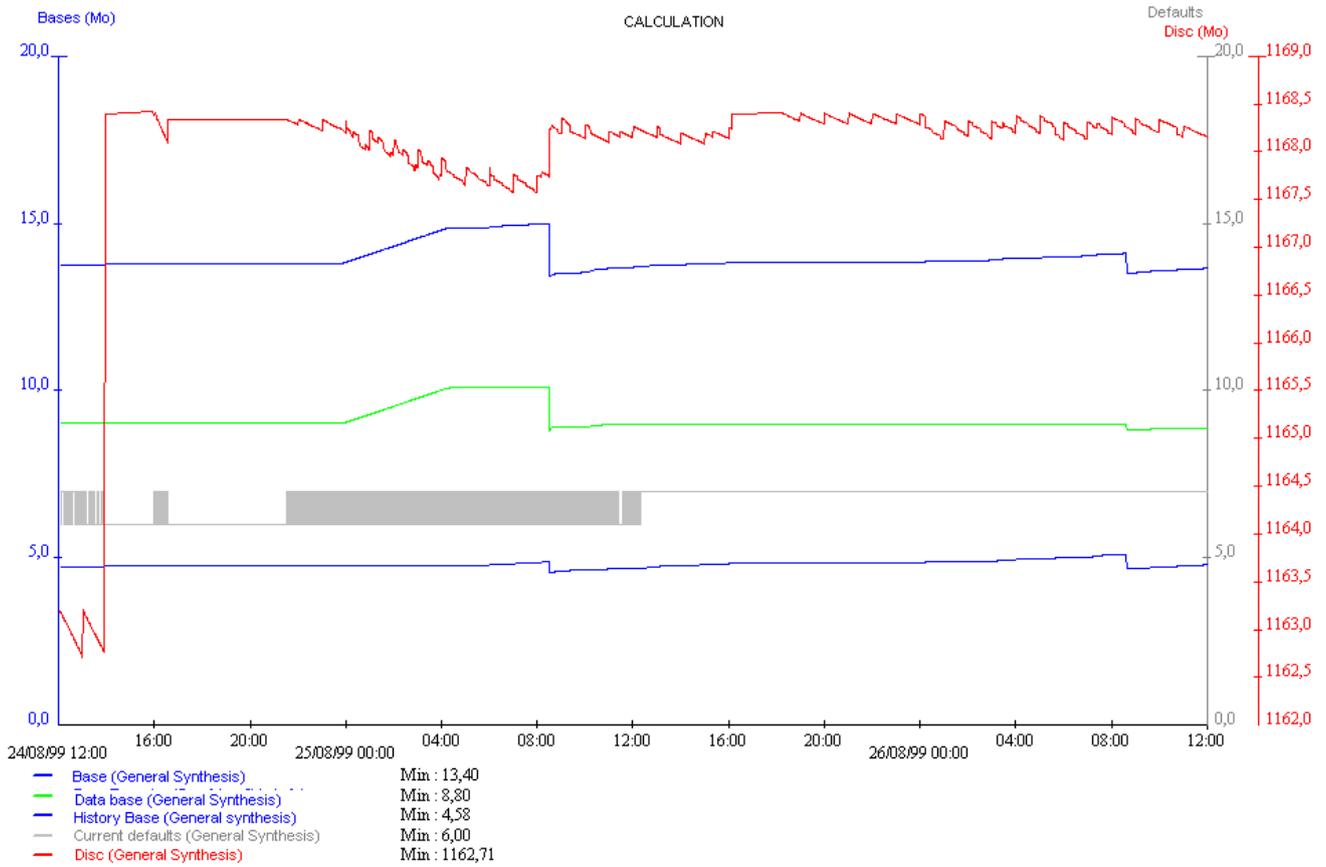
### 7.14.2 Use

Once defined, the internal variables are used like traditional variables:

- For “digital input” type internal variables, it is possible to associate an alarm level (“Alarm” tab of the variable configuration form); in this case, all the variable’s status changes will be added to Kerwin’s events and will be usable in call programmes like any variable originating from a remotely managed site. For example, you can define a variable that counts the number of sites with communication fault status and generates a minor fault if at least one site is faulty and a critical alarm if 10 sites are faulty. These alarms may then be sent as an alert message to the electronic address of the Kerwin administrator or to his mobile phone. This last functionality of course requires you to have acquired the Kerwin alert module. Note that for faults on internal logic variables, the value 1 corresponds to a fault and 0 to a return to normal.
- It is not possible to directly allocate alarms to analogue type internal variables; however, you can define an internal logic variable that will allow the generating of an event according to the conditions suitable to your application.
- Events originating from internal variables can then be used like any event, as well as in alert mode: viewing in the log, retrievals from management charts, representation in curves and graphs, etc.
- Analogue type internal variables may be saved in [files](#) associated with the sites from which they have originated; these internal histories must be of the ‘measurement’ type with the ‘default’ protocol:



These files are then associated in the sequencer with data transfer sequences at the required recording time interval. The values saved can then be used in management charts, graphs, etc, like any other variable:



Finally, note that all internal variables can be used in synoptics, offering the same functionalities as a variable originating from a site (representation in the form of a gauge, image with n statuses, etc). This last option requires the Kerwin “synoptic” module.

### 7.14.3 Functions, operators and constants available

The functions, operators and constants available are to a large degree standard (usual mathematical and trigonometrical functions and basic arithmetical and logical operators) and do not require special comment, while noting that Kerwin allows arithmetical and logical operators to be combined in the same formula, which means that complex operations can be performed (tests, conditions, etc).

Some functions accept several parameters, or even an arbitrary number of parameters, which is very practical in the case of functions such as Sum or Average; for these functions, **the parameter separator is the semi-colon**, and not the comma, which is reserved for floating numbers: for example `EvtCount(K_SITE;'PR%')` allows the number of events of all the sites starting with PR to be counted. Some functions use character strings: a character string is framed by the character `'`: for example `Var('COGE_SOUTH!Temp')`, which is a function that returns the temperature variable value of the site COGE\_SUD. Some character strings have a special format: this is case of the previous example, which uses an exclamation mark; the exclamation mark is used as a special separator inside a character string in functions using variable or file names: `'[site_name!]num_var_transmitted'` Or `'[site_name!]file_name'`. The site name and the exclamation mark are optional, if the destination variable belongs to the same site as the variable or file used in the function.

#### 7.14.3.1 Operators

Operator	Description	Example	Result
OR	Logical or	3 OR 2	3
ORX	Logical exclusive or	3 ORX 2	1
AND	Logical and	3 AND 2	2
NOT	Logical not (returns 0 or 1)	NOT 10	0
		NOT 0	1
=	Equality test	1 = 2	0
		2 = 2	1
<>	Inequality test		
<	Less than		
<=	Less than or equal to		
>	Greater than		
>=	Greater than or equal to		
>>	Right shift	7 >> 1	3
		7 >> 2	1
<<	Left shift	3 << 2	12
+	Addition		
-	Subtraction		
*	Multiplication		
/	Floating division	3/2	1.5
\	Integer division	3\2	1
MOD	Modulo	15 MOD 4	3
^	Exponential operator	15 ^ 3	3375

**7.14.3.2 Functions**

<b>Function</b>	<b>Description</b>	<b>Comments</b>
Abs(exp)	Absolute value	
Int(exp)	Integer part	
Sgn(exp)	Operand sign	Returns 1 (if positive) or -1 (if negative) or 0 if zero
Ln(exp)	Neperian logarithm	
Log10(exp)	Base 10 logarithm	
Sqr(exp)	Square root	
Sin(exp)	Sine	The parameter is in radians (this is the case for all trigonometric functions)
Cos(exp)	Cosine	
Tg(exp)	Tangent	
ATg(exp)	Arc tangent	
ASin(exp)	Arc sine	
Acos(exp)	Arc cosine	
Sinh(exp)	Hyperbolic sine	
Cosh(exp)	Hyperbolic cosine	
Tgh(exp)	Hyperbolic tangent	
cvDate(exp)	Converting of an expression to Kerwin's internal date format	
DateAdd(date;interval [;typ])	Adding of a number to a date	typ is a character string (optional, equal to 's' by default, i.e. in seconds) indicating the interval parameter type: 'yyyy' in years, 'm' in months, 'd' in days, 'h' in hours, 'n' in minutes, 's' in seconds.
DateDiff([interval;]start;end)	Difference between two dates, depending on the interval	Interval is a character string (optional, equal to 's' by default, i.e. in seconds) indicating the type of result returned: 'yyyy' in years, 'm' in months, 'd' in days, 'h' in hours, 'n' in minutes, 's' in seconds. Start and end are expressions convertible into dates. Example: DateDiff('yyyy', '1/1/2000', '1/1/2003') returns 3
Maintenant, Now	Returns the current date, in the internal Kerwin format	
DateEx(typ[;date])	Returns the date corresponding to the closest minute, hour, day, month or year.	typ is a character string, whose possible values are: 'y': returns the date corresponding to the next January 'M': returns the date corresponding to the next month 'd': returns the date corresponding to the next midnight 'h': returns the date corresponding to the next round hour 'n' or 'm': returns the date corresponding to the next round minute

Function	Description	Commentaires
Min(exp1;exp2[;exp3...])	Calculates the minimum expressions passed as parameters	The number of parameters varies
Max	Calculates the maximum expressions passed as parameters	The number of parameters varies
Moyenne, Avg	Calculates the average expressions passed as parameters	The number of parameters varies
Somme, Sum	Calculates the sum of the expressions passed as parameters	The number of parameters varies
Var('[site!]var')	Returns the value of the var label variable transmitted belonging to the local unit named site.	If the name of the local unit is omitted, the local unit used to look for the var variable is the local unit to which the formula's destination variable belongs.
VarTs('[site!]var')	Returns the value of the last valuation date of the variable passed as a parameter	
VarHisto(var;file[;timedifference][;timedifferencetype] [;accuracy] [;option])		Retrieval of a value from a history file, in relation to the current date
VarHistoAbs(var; file; date; accuracy)		Same as VarHisto, but working from an explicit date rather than the current date
VarHistoCalc(var; file; op; startdate; enddate; accuracy)		Returns a calculation (op) carried out on a history file variable, between two dates
Freedisk(disk)	Calculating of the space available (in Mb) on the disk	disk is in the form: 'd:\'
EvtCount(crit1;valcrit1[...criti ;valcriti])		Returns the number of alarms and events, according to free criteria
SQL(query)	Sending of an SQL query to the configuration database	For SQL and SQLH, the result returned, in the case of a SELECT query, is the value of the first field of the first record returned by the query; otherwise, the result is indeterminate
SQLH(query)	Sending of an SQL query to the history file database	

#### 7.14.3.2.1 Information concerning *VarHisto* type functions:

In the following paragraphs, the variables and files (*var* and *file*) are referred to either by their primary Kerwin key (long integer internal to Kerwin), or by their name (label transmitted for the variables) and possibly the name of the local unit to which they belong.

**Varhisto** (*var* ; *file* [ ; *timedifference*] [ ; *timedifferencetype*] [ ; *accuracy*] [ ; *option*])

var: variable

file: history file in which the variable is stored

timedelay: optional integer: time delay (in the past), applied in relation to the present moment, for searching for the value. This is an hour by default. If this parameter is omitted, the following must also be; the time delay type (time, minute, etc) is specified in the following parameter. If this parameter is omitted, *VarHisto* returns the value of the last record.

timedifferencetype: optional character string that specifies the type of time delay applied for the previous parameter; equal to 'h' by default (i.e. in hours); the possible values are:

- 'yyyy' Year
- 'q' Quarter
- 'm' Month
- 'd' Day
- 'ww' Week
- 'h' Hour
- 'n' Minute
- 's' Second

accuracy: optional integer, indicates an accuracy in seconds (3600 by default) applied if the record on the date sought is not found; in this case, the value of the closest record is returned, within the accuracy limit.

option: optional integer (0 by default); if this is different from zero, it indicates that the accuracy only applies before the time delayed date and not after. In this case, semi-accuracy is applied.

**VarHistoAbs** (*var* ; *file* ; *date* ; *accuracy*)

var: variable

file: history in which the variable is stored

date: date sought in the history

accuracy: integer, indicates an accuracy in seconds applied if the record on the date sought is not found; in this case, the value of the closest record is returned, within the accuracy limit.

**VarHistoCalc** (*var ; file ; op ; startdate ; enddate ; accuracy*)

var: variable

file: history in which the variable is stored

op: character string, operation to be performed

startdate: start date

enddate: end date

accuracy: integer, indicates the accuracy in seconds applied if the record on the date sought is not found; in this case, the value of the closest record is returned, within the accuracy limit.

The *op* parameter may take the following values:

- 'min', calculates the idvar minimum between startdate and enddate
- 'max', calculates the idvar maximum between startdate and enddate
- 'avg', calculates the idvar average between startdate and enddate
- 'stdev', calculates the idvar standard deviation between startdate and enddate
- 'count', calculates the number of idvar records in the history between startdate and enddate
- 'diff', calculates the idvar difference between startdate and enddate
- 'sum', cumulates idvar between startdate and enddate (regular time interval required for a correct result)
- 'integ', calculates idvar integrant between startdate and enddate

**Note:**

- If no value is found, the internal Kerwin variable is not valued (it remains at its old value)
- For VarHistoCalc and VarHistoAbs, the dates passed as parameters may advantageously take a value returned by DateEx
- The internal date format used is that of Windows (double-precision floating point; thus Now()-1 returns the date corresponding to the current date less one day; Now()-23/24 returns the date corresponding to the current date less 23 hours.
- The following syntax is not tolerated in the calculation formulae: Varhisto(1;2;3;;1800); in other words, an optional parameter may not be omitted if it is followed by another parameter.

**Examples:**

`varhisto(58;90)` returns the last value of the variable 58 recorded in file 90

`varhisto('time';'histo';1)` returns the value of the variable 'time' plus one hour in the file 'histo'

`varhisto('time';'histo';1;'d';1800)` same as the previous, but with a one day age and a half-hour accuracy

`varhistocalc('time';'histo';'avg';Now()-1;Now();600)` calculates the average over 24 hours between the current date and the previous day

`varhistocalc('time';'histo';"stdev";DateEx('d')-1;DateEx('d');600)` returns the standard deviation between the previous day at midnight and the current day at midnight

`varhistoabs('time';'histo';DateEx('d');600)` returns the value of the variable 'time' in the 'histo' file at midnight on the current day, with an accuracy of 10 minutes

#### 7.14.3.2.2 Information about *EvtCount(expression)* type functions

**EvtCount(expression)** returns the number of alarms and events present in your Kerwin application according to complex criteria contained in **expression**.

The syntax of **expression** is the following:

```
criteria 1;criteria value 1[;criteria 2;criteria value 2 [...]].
```

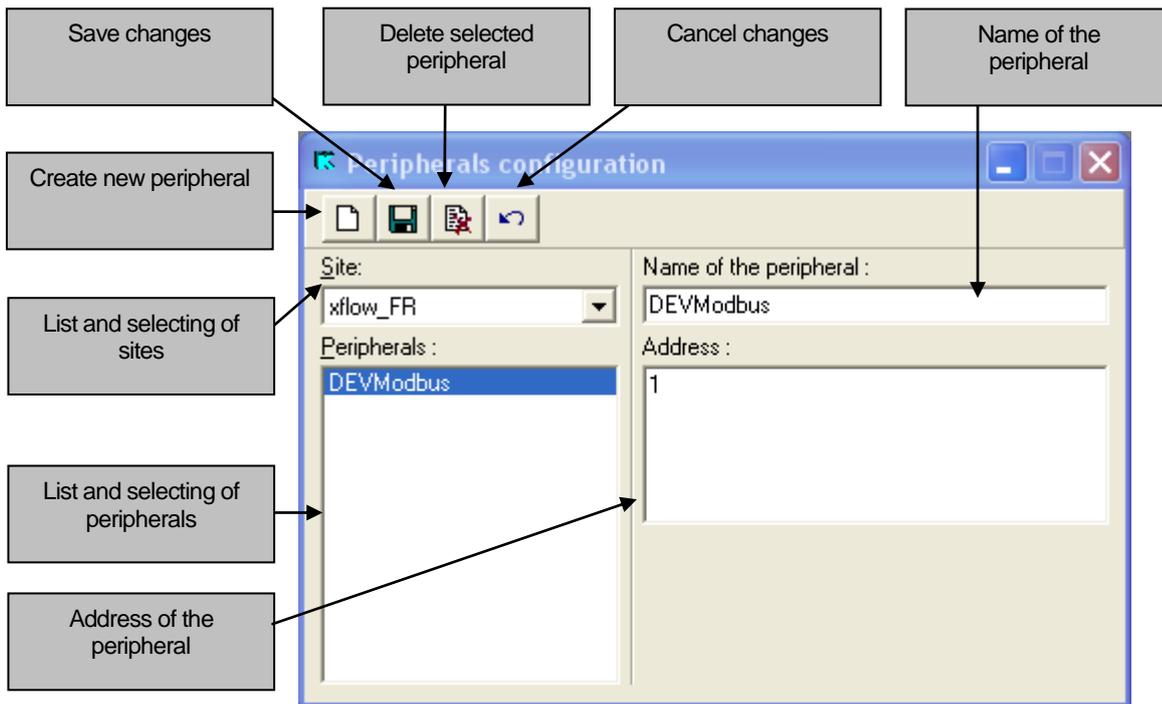
**Examples:**

`EvtCount(K_STATUS_EVT;K_STATUS_EVT_ACKNOW;K_SITE;'%VALIN%')` returns the number of current but acknowledged faults for all the sites containing VALIN in their name. The list of criteria can be found in the "Constants" list of the variable configuration form's "formula" tab.

7.15 PERIPHERALS

This screen is used to declare and configure the peripheral of a site remotely managed by KERWIN. This operation must normally be carried out, for Schneider Electric Telecontrol local units, through a "[Self configuration request](#)". A peripheral may later be added, however, without needing to rerequest an autoconfiguration.

Access: Configuration / Peripherals



7.16 FILES

This screen is used to declare and configure the various files of a site remotely managed by KERWIN. This operation must normally be carried out, for Schneider Electric Telecontrol local units, through a "[Self configuration request](#)". A file may later be added, however, without needing to rerequest an autoconfiguration.

Some files are automatically added on the creating of the site. These files depend on the type of logical unit:

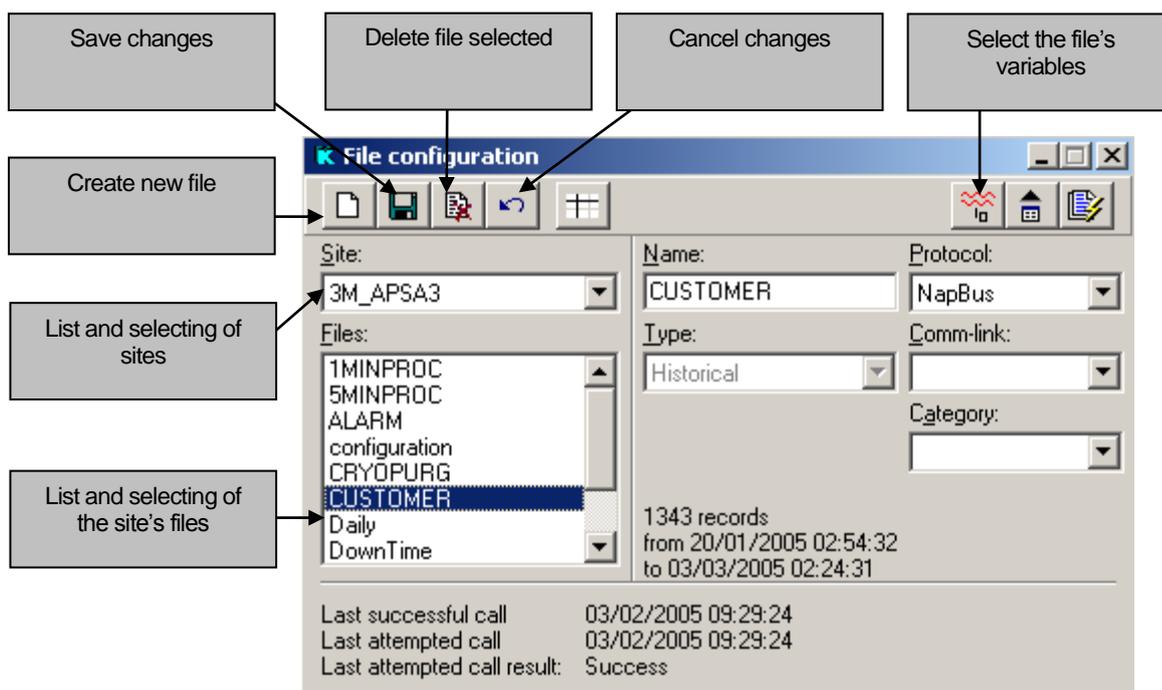
Local unit	File
HERMES, TELEFLO	Configuration
iRIO; XLRIO ... (Xflow)	Configuration
W@DE	Alarm/Event Historical
TL04, PERAX	Alarm/Event
SOFREL	Alarm/Event Histo. report Histo. misc
MUC5 / MUC9	Configuration Detailed Synthesis Alarm/Event

It is useful, however, to be able to modify a file's parameters, in particular the list of variables that make up a record. You may also want to associate it with a type, to use it in a model.

This screen also allows operations in view mode.

All these files may be transferred as they are needed, at the operator's request, or periodically on receipt of an event through the [Task](#) scheduler

Access: Configuration / Files



### 7.16.1 General parameters

#### 7.16.1.1.1 File name

File name (30 characters). On XFLOW (iRIO, XLRIO...), HERMES and TELEFLO local units, the name identifies the file uniquely. It must therefore be the same as that configured on the local unit.

#### 7.16.1.1.2 File type

Allows the type of file to be defined. The types proposed depend on the type of local unit.

##### Raw config of RTUs

- Unprocessed configuration

##### Historical

- Histo. Report (measurement file with operations of the MUC5/MUC9 and SOFREL local units)
  - Detailed (measurement file of the MUC5/MUC9 local units)
  - Synthesis (synthesis measurement file of the MUC5/MUC9 local units)
  - Historical (measurement history file with operations or not)
  - Histo. Misc (measurement file of SOFREL local units)
2. Histogram (specific measurement file of HERMES local units)
- State (specific measurement file of iRIO (Xflow) local units)

##### Alarm/Event

- Alarm/Event (events file)

##### Virtual file

- Cf. Virtual Site

#### 7.16.1.1.3 Comm-link

Chosen from the list of the links defined in the item "Links" according to the medium used to communicate with the local station (see [Parametering / Links](#)). If no links are selected, it is that of the site which is used.

#### 7.16.1.1.4 Protocol

Select a communication protocol. Allow the use of a different protocol from that used by default by the site. For example, you can transfer a file through XMODEM from a MUC5/MUC9 type local unit; although by default the NAPBUS protocol is used.

- NAPBUS (for the majority of Schneider Electric Telecontrol local units)
- MODBUS2 (for W@DE local units)
- XMODEM (compulsory for MUC4 local units, and MUC5s whose version is earlier than 2H)
- ASCII (special for the importing of measurement files in text format)
- BY DEFAULT (used for [internal variables](#) and for recording instantaneous values)

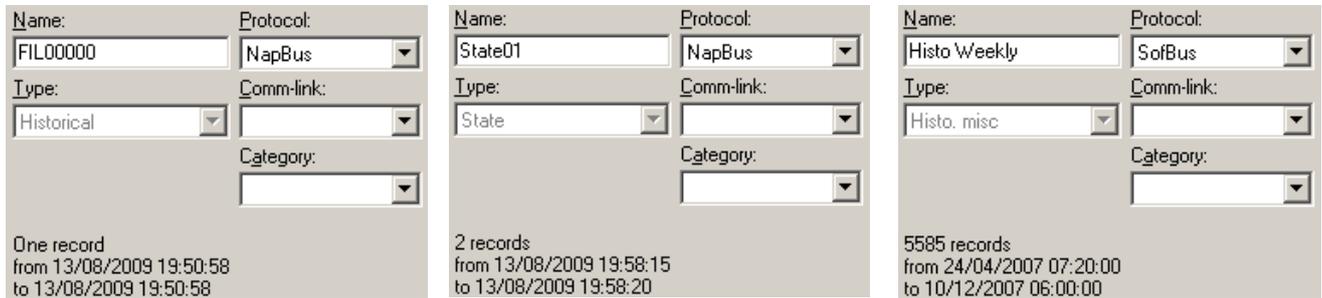
#### 7.16.1.1.5 Category

Allows a category to be associated with the file selected. You can create type via the "File category" form, which is displayed via the Configuration / Categories / Files menu.

You can then use these types when creating models. See Parametering / Models.

7.16.2 File type « Historical », « Histo. misc », « State », « Detailed », « Synthesis »

The file type depends on the local unit. The files "State" are specific to iRIO; Historical files are specific to SOFREL. Certain measures file contains values directly calculated by the local unit.



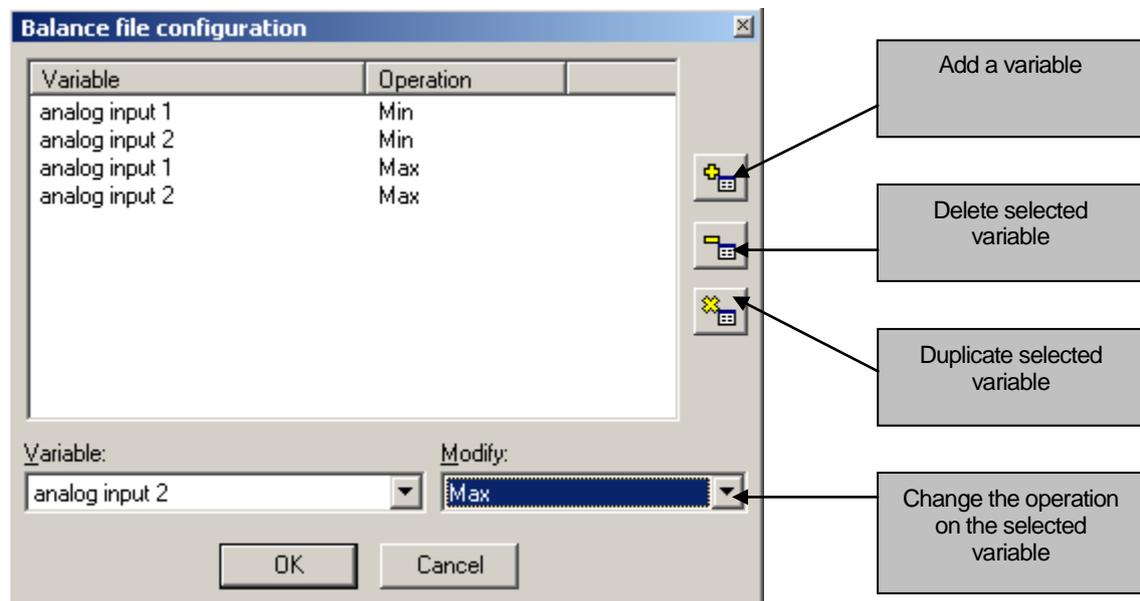
Possibility of creating several KERWIN files from the same measurement/historical file on the local unit, for different viewing, processing and exporting needs.

Management of possible overwriting from one transfer to the next (for local units not allowing a transfer limited to data that are new since the previous transfer)

Select the variables to be retrieved for each file. By default, all the variables are included.

Procedure:

- The first time, transfer the complete file.
- Click on the  button to display the variable selection screens. This screen may be differ depending on whether the file includes operations on variables (average, min, etc)
- Remove the variables that you don't wish to retrieve
- Confirm your changes



For how to use measurement files, refer to [Histories and graphic representation](#)

**Note:** For the Wade local units the measures files must be configured in KERWIN for it to actually record the data from the stack of events

### 7.16.3 "Hist. report" type files

This type refers to measurement files specific to MUC5/MUC9 and SOFREL type local units.

The screenshot shows a configuration dialog for 'Hist. report' type files. A callout box labeled 'Report number for MUC5/MUC9 local units' points to the 'Num' field, which contains the value '1'. Other fields include Name (report), Protocol (NapBus), Type (Histo. report), Comm-link, and Category.

These files are managed in the same way as ["Historical" type files](#)

#### 7.16.3.1.1 Number

Report file number for MUC5/MUC9 type local units, between 1 and 12.

For SOFREL type local units, this field is not available, as there is only one report file.

### 7.16.4 "Event" type files

The screenshot shows a configuration dialog for 'Event' type files. A callout box labeled 'Event filter' points to the 'Filter' field, which is currently empty. Other fields include Name (Alarm/Event), Protocol (NapBus), Type (Alarm/Event), Comm-link, and Category.

Retrieval limited to new events.

Viewing, sorting functions, etc, and fault duration calculations. See [Event forms](#)

#### 7.16.4.1.1 Filter

The filter allows the limiting of retrieval, for iRio local units, to part of the history.

By default, retrieval is carried out on the entire file. The filter comprises a character string that allows the reading of certain events transmitted to a given direction.

There are 4 event statuses:

- Critical active, encoded by the character A
- Minor active, encoded by the character D
- Info, encoded by the character J
- Acknowledged, encoded by the character P

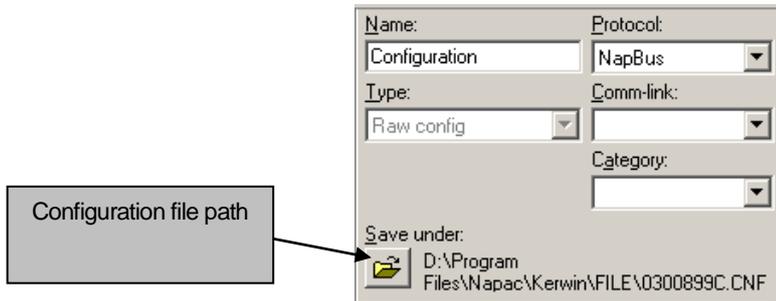
There are 4 possible directions:

- The direction number is given by the character's position in the string.
- Only one direction may be filtered at a time.
- For example, filter ". . A" only allows retrieval of the active events of local unit direction n°3 (assumed to be that of the KERWIN PC).

**Note:** This function is generally not anymore used.

### 7.16.5 "Raw configuration" type files

This type of file retrieves the local units' unprocessed configurations and stores them on the KERWIN PC.



#### 7.16.5.1.1 Stored in

This button is used to specify the directory and storage name of the local unit's internal configuration.

Once this parameter has been entered, you can use the [upload configt](#) and [download confige](#) functions described in the section [Operating / Site form](#)

### 7.16.6 Importing « ASCII » measure file

#### 7.16.6.1 Purpose :

Importing immediately or periodically in Kerwin and ASCII measure file. An imported file is used like any measurement file.

**Note:** after an import, the source file is destroyed.

#### 7.16.6.2 Implementation :

##### 7.16.6.2.1 Configuration of the format of the ASCII file

The setting of the format must be done once for all in the configuration file of the data server (kerwin32.cfg).

1. Stop Kerwin
2. Open configuration file kerwin32.cfg
3. Search the [Importation] section and enter the value of the following items:

**format date** (date format)  
**nom date** (name of the date column)  
**separateur** (column separator)  
**remise a l'echelle** (conversion)  
**format null** (string for a NULL value)

For our demonstration we will consider the following format:

```
[Importation]
format date=yyyy-MM-dd hh:mm:ss
nom date=DATE
separateur=;
remise a l'echelle=YES
format null=NULL
```

4. Restart Kerwin

##### 7.16.6.2.2 Creating the ASCII file

The file format must follow the configuration done above. This is an ANSI file. The first line of the header file is where we will find the names of variables you want to import. The decimal separator is the dot.

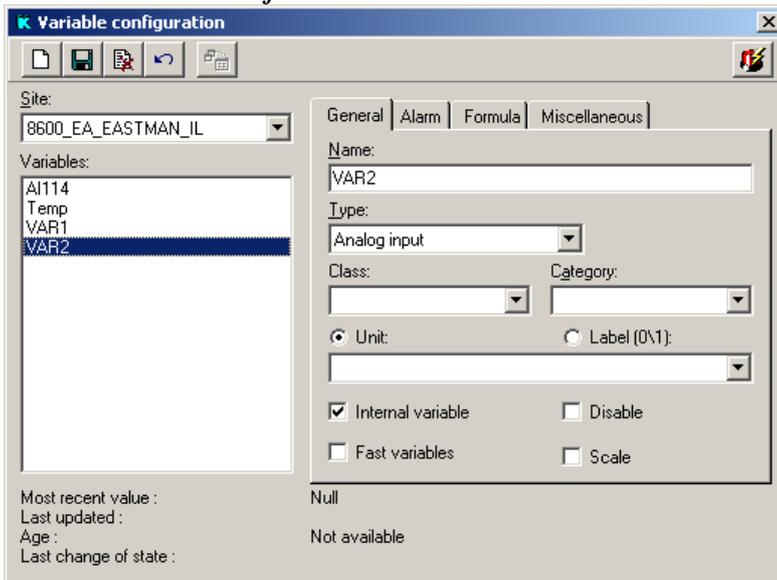
#### **Example:**

Importing a measures file with the variables VAR1 and VAR2 and three records. The file is named testimport.txt

```
DATE;VAR1;VAR2
2011-07-28 10:00:00;18.253;27.123
2011-07-28 11:00:00;19.112;26.583
2011-07-28 12:00:00;19.354;23.861
```

Save this file in the directory from where the import will be done.

7.16.6.2.3 Creation of the variables VAR1 and VAR2.

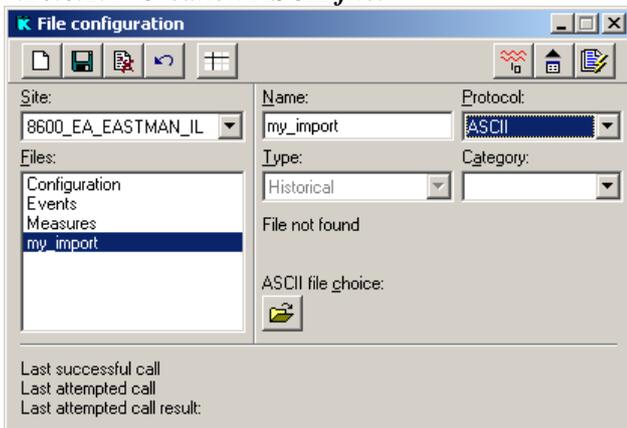


Open the configuration variables and select the receptor site of the ASCII file.

Create an internal variable VAR1 type analog input.

Create a second variable of the same type VAR2

7.16.6.2.4 Creation ASCII file.

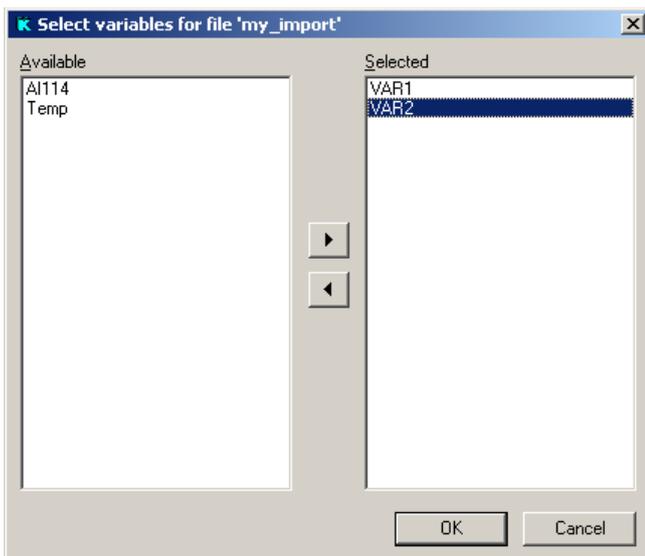


Open the configuration file and select the receptor site of the ASCII file.

Create a new Historical file with ASCII protocol.

Name it "my\_Import".

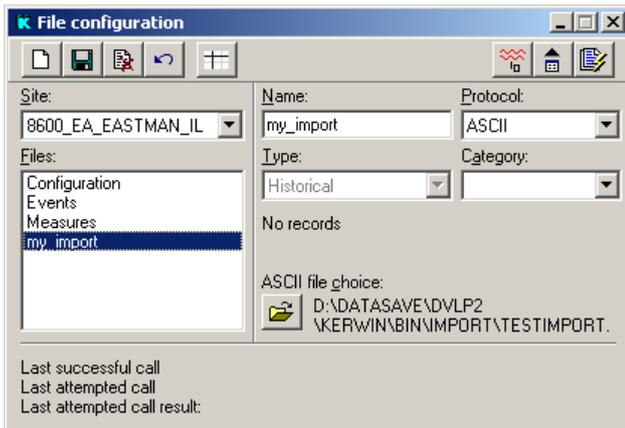
Save your work



Click on the button « Variable selection » to select the file structure.

Select the variables VAR1 and VAR2 and make them move into the list of selected variables.

Click [OK].



Click on "ASCII file choice" to select the file to import.

From the navigation form, navigate to the import directory and select the **testimport.txt** file you previously copied

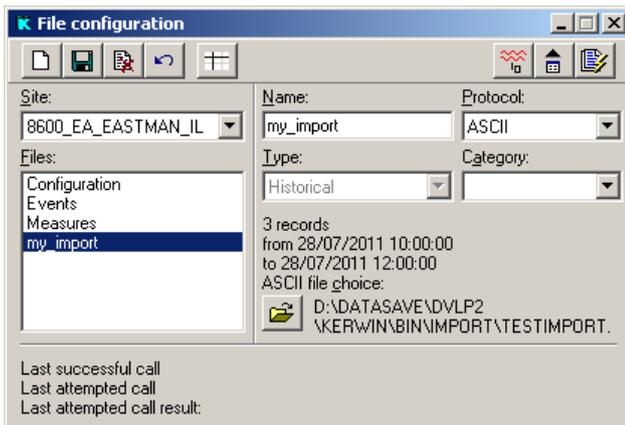
Save your actions

7.16.6.2.5 Import manuel.



From the "File configuration" form, click the button « Download file now »

Confirm the transfer request.



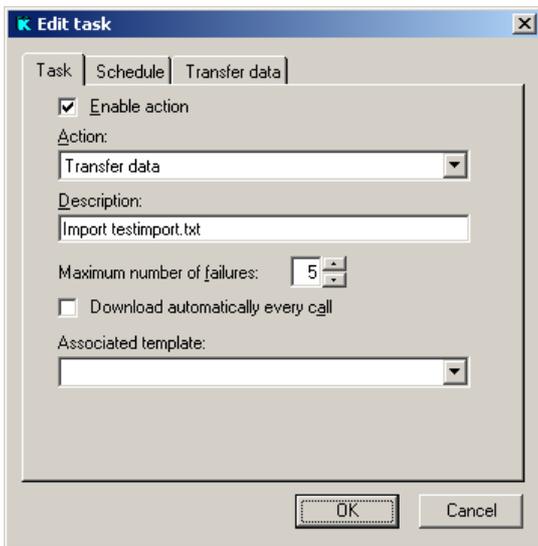
Le file is imported into the database

Les 3 records appear in the file.

The file testimport.txt has been deleted.

7.16.6.2.6 Import périodique

The import is done from a periodic sequence of type file transfer. But instead of picking up the data on an RTU, the data server will look for new data in the file testimport.txt



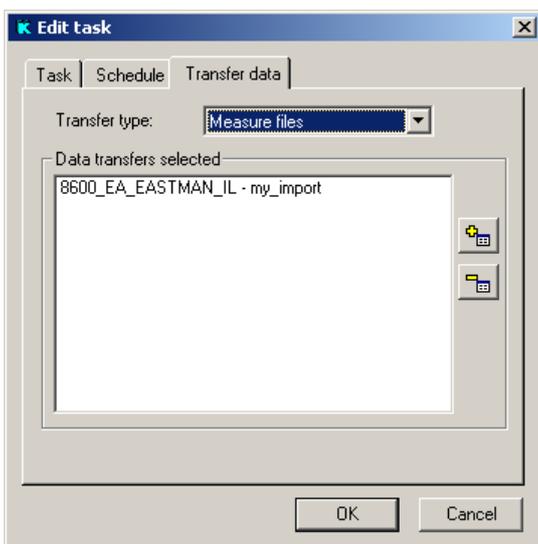
Switch Kerwin to configuration mode

Open the list of tasks.

Add a “Data transfer” task.

Give it a name.

Set the frequency (eg every day at 10:00)



Display the tab “Transfer data” and select the file “my\_import” from the relevant site.

Confirm your action by clicking OK.

Every day this sequence will import the file testimport.txt

After each import the file is deleted. This will require each day to recreate the file with new records

Date-Time	VAR1	VAR2
28/07/2011 12:00:00	19,354	23,861
28/07/2011 11:00:00	19,112	26,583
28/07/2011 10:00:00	18,253	27,123

### 7.17 THE “VIRTUAL” SITES

A site type of "virtual" does not correspond to a physical location. It consists of variables and files from other sites.

Thanks to virtual sites, you can:

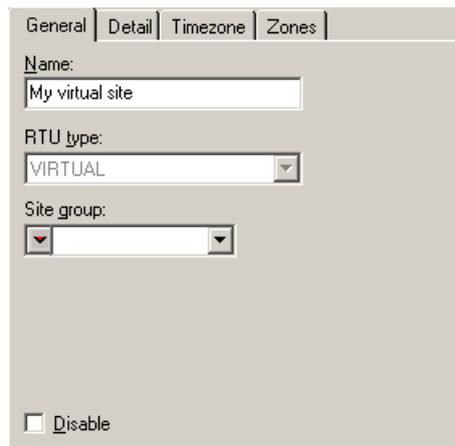
- Break a real site in several virtual sites containing subset of variables and files.
- Consolidate in a virtual site variables and files from several real sites.

We can thus have a representation of the installation differs from the concept of local unit.

#### 7.17.1 Creating a virtual site

The creation does not differ from that of a classical site.

You have to select "virtual" as a type of the local unit. Only the "Name", "Site group" and "Disabled" for the *General* tab and "Comment" for the *Details* tab are available:

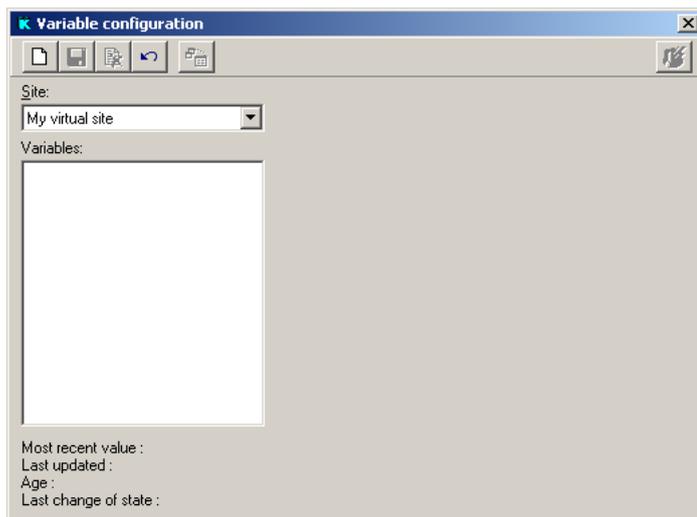


#### 7.17.2 Ajout de variables à un site virtuel

Thanks to the form of "configuration variables" you can add variables to a virtual site.

##### 7.17.2.1 1<sup>st</sup> Case: No variable is associated with the virtual site

The following screen appears. Only the Add button  is available.

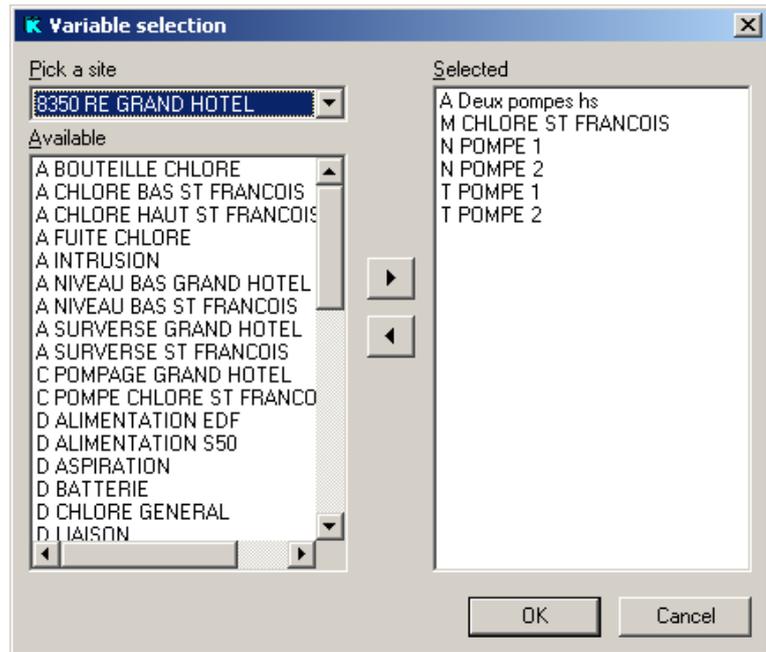


Clicking the button  pops up a form for selecting real sites. For each one select the desired variables:

On the right are the variables already associated with the virtual site, on the left is the list of sites and below is the list of variables associated with the selected real site. You can add them to the virtual site.

Clicking the *OK* button validates the choice of the user and associates the variables of the right list with the virtual site.

Clicking *Cancel* simply closes the window and does none of the changes made by the user.



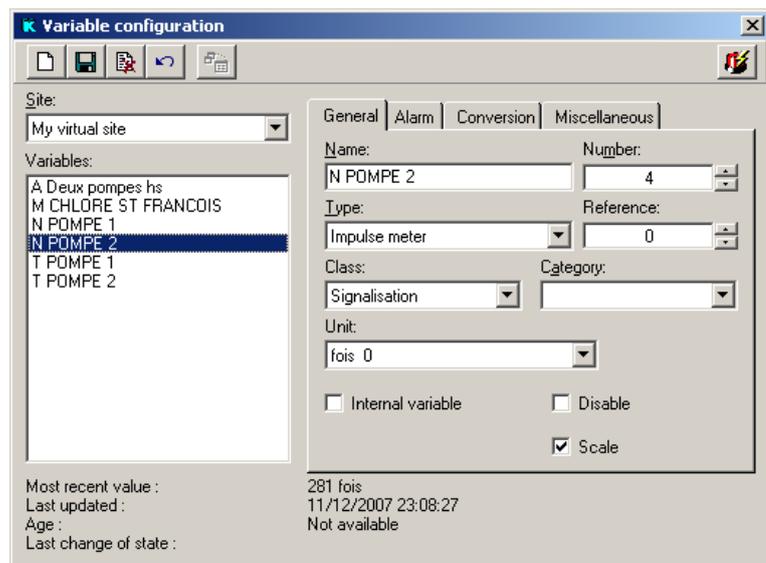
**7.17.2.2 2<sup>nd</sup> case: Some variables are already associated with the virtual site**

The following screen appears

You can add variables to the site by clicking the Add button (see 1st Case above).

You can change the characteristics of variables existing on the site (in this case, the characteristics of the real variable are changed and therefore affect all sites that own this variable).

You can delete a variable (in this case, only the link between the site and this variable is deleted, not the variable itself).

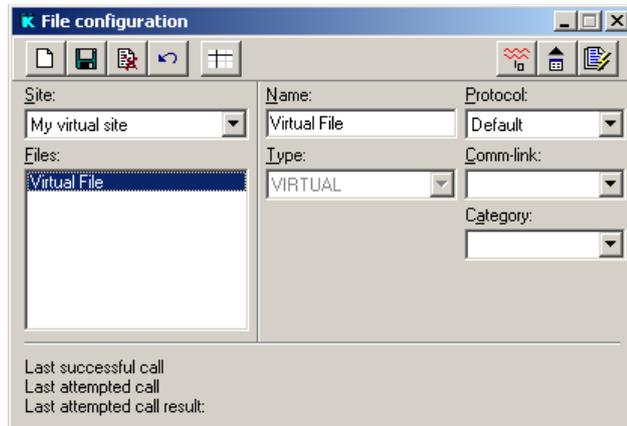


**7.17.3 Virtual” type files**

This file allows consolidating data from [files of measures](#).

The creation of a virtual file is not different from another type.

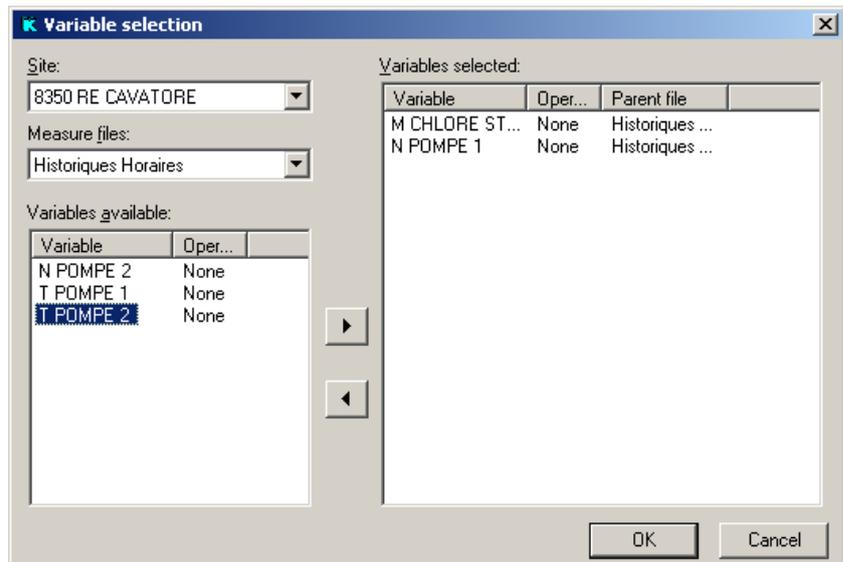
The only protocol allowed is "default" since these files physically do not exist, no communication is required



After the file is created, the user can click on the button *variable selection*  , to display the next screen:

Just like what is done for creating graphs, this screen allows selecting one or more real site; then for each site one or more measures files and finally one or more variables linked to these files.

Only variables previously linked to the virtual site can be selected to constitute a virtual file. One can not select twice the same variable in the same virtual file.



After validation by clicking the "OK" button, the selected variables are associated with the virtual file, and thus by extension their history through their original file. The *Cancel* button allows you to ignore the changes made by the user on this screen.

A click on *Download file now* button  starts the reading of all real files from which the variables have been selected. Several connections can then be started simultaneously

**7.18 SYNOPTICS – SITE VIEWS**

KERWIN allows remotely managed sites to be represented on graphic images (photos, geographic maps, etc) known as synoptics. The aim of these synoptics is to provide a general view of the status of the sites and allow faster access (faster than via menus) to some of the software's monitoring functions (see [“Synoptics – general view of the sites' statuses”](#))

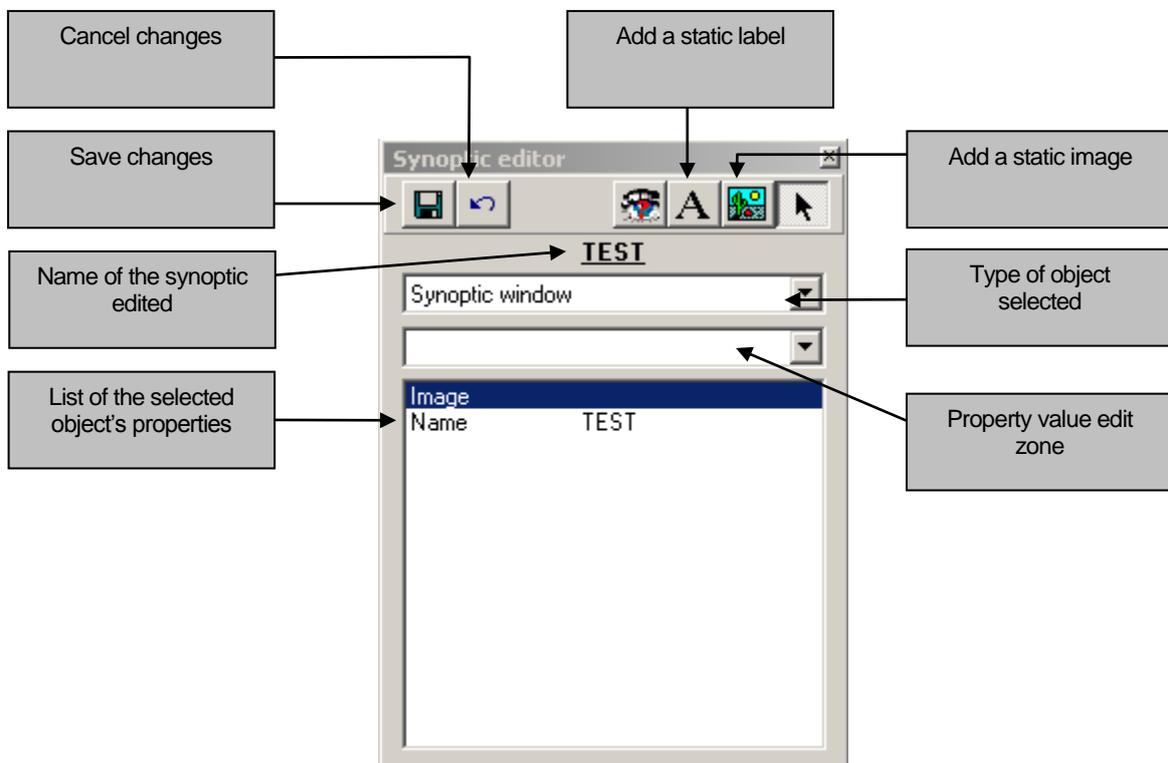
KERWIN's synoptics offer the following possibilities in configuration mode:

- Integrating of a new background image (bmp, gif, jpg and wmf format)
- Adding of a site onto the background
- Creating of a link with another synoptic
- Creating of a link with a graph
- Creating of a link with one of the sequencer's actions
- Adding of a summary of the current faults for the sites represented

**7.18.1 Synoptic editor**

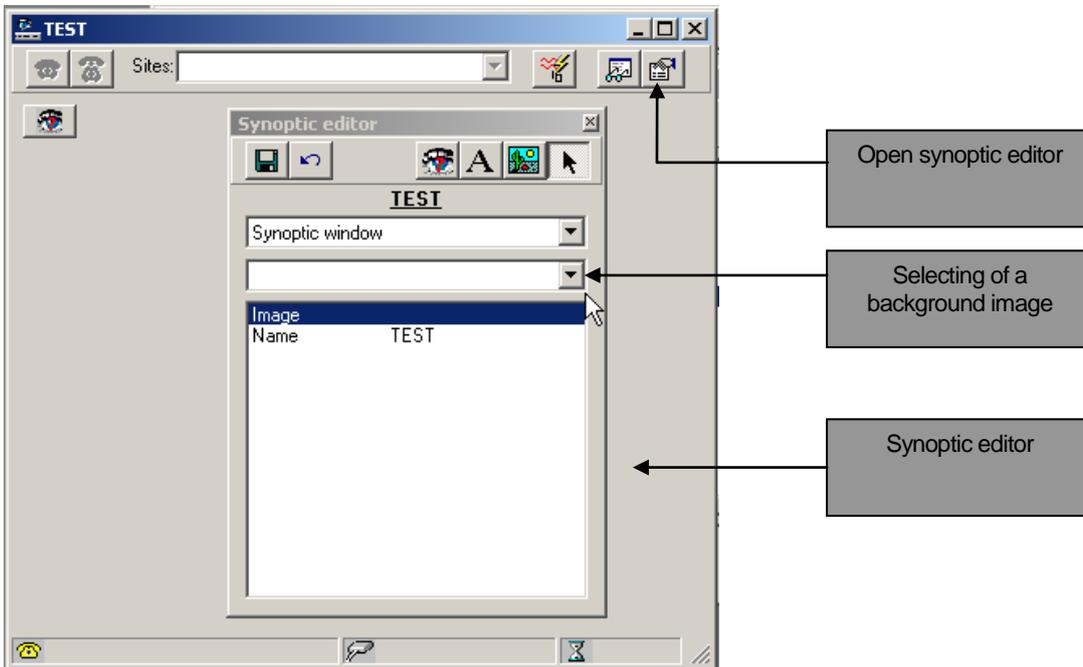
This is used to edit the properties of the various objects that you will place on the synoptic. To display the editor, right-click in the synoptic's background. To see an object's properties, select it with the mouse. Each time that you wish to modify a property, confirm your input by pressing the [Enter] key on your computer keyboard.

The editor also allows you to save all the changes in the database, or cancel them by returning to the synoptic's previous state.

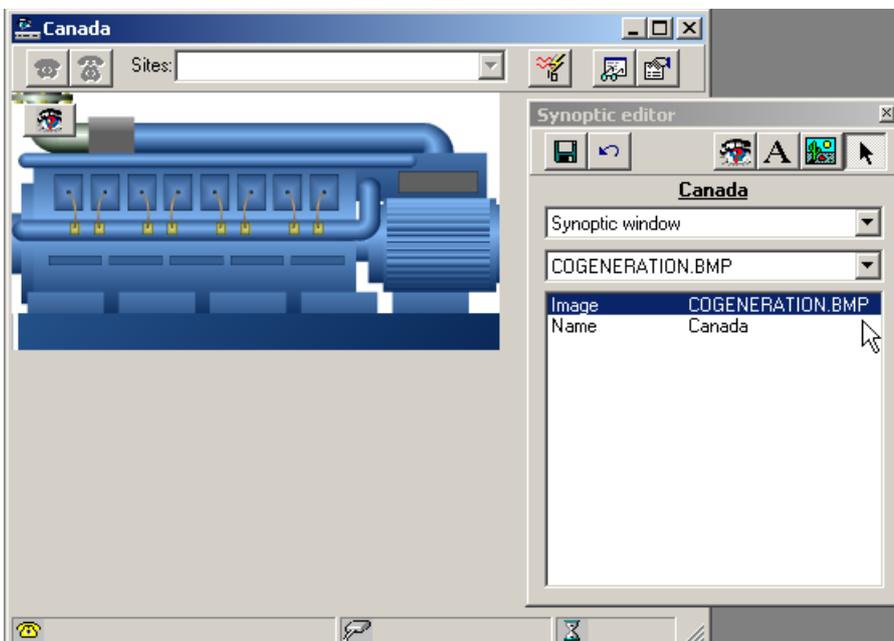


7.18.2 Integrating a background image

- Display the list of synoptics (“Parametering / Synoptics” menu)
- Create or open the synoptic of your choice



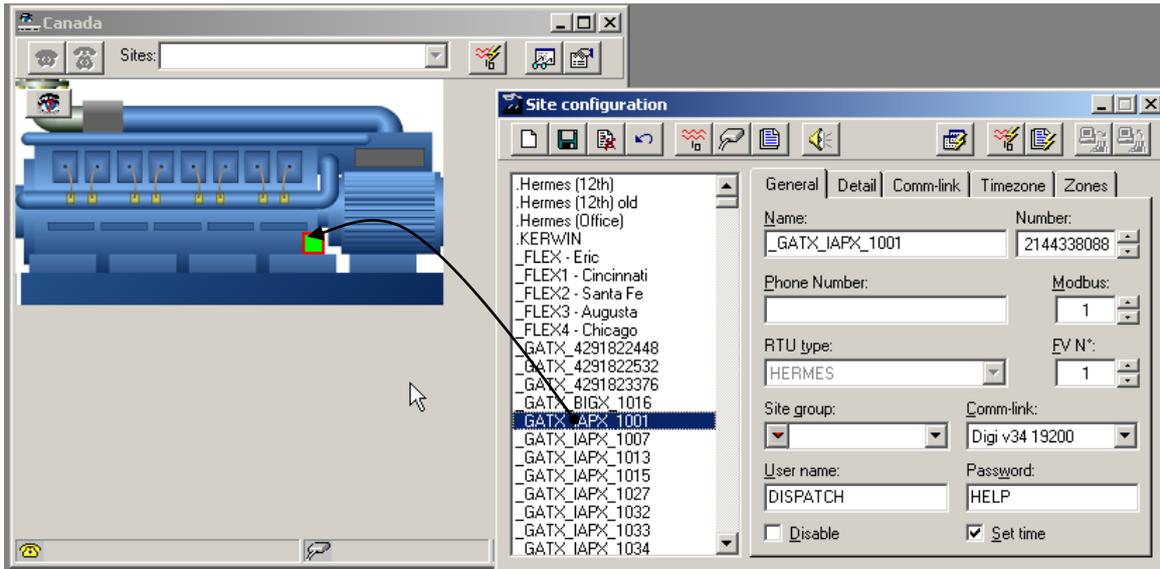
- Open the synoptic editor. If the synoptic has just been created, it will suggest associating a background image (**Synoptic** object's **image** property).
- Select an image from the scrolling list.
- The image will be immediately displayed in the synoptic's background.



**Note:** The images proposed in the scrolling list are present on the KERWIN PC in KERWIN's installation directory in the **images** folder. You must therefore copy your background images to this location to make them available for the synoptics

7.18.3 Adding a site to a synoptic

- Open the site configuration menu (“Configuration / Sites” menu)
- Select a site from the list. A white square should appear.
- While holding down the button, move the square onto the synoptic, to the position of your choice.
- Release the button
- The square should appear in colour:
  1. Green if there are no current faults for the site
  2. Yellow if all the current faults have been acknowledged
  3. Red if there are unacknowledged current faults

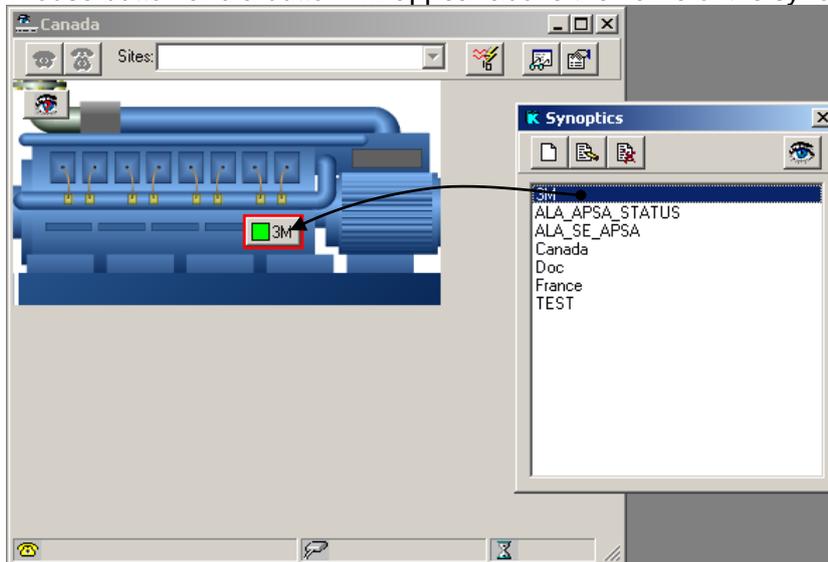


**Note:** With the synoptic editor you can:

- Change the default colours proposed above,
- Associate another site with the object.

**7.18.4 Creating a link with another synoptic**

- Open the synoptic configuration window (“Configuration / Synoptics” menu)
- Open the synoptic that will receive the link
- Using the mouse, select the required synoptic from the list of synoptics. A white square should appear.
- While holding down the button, move the square onto the synoptic, to the position of your choice.
- Release the mouse button and a button will appear above the name of the synoptic linked.

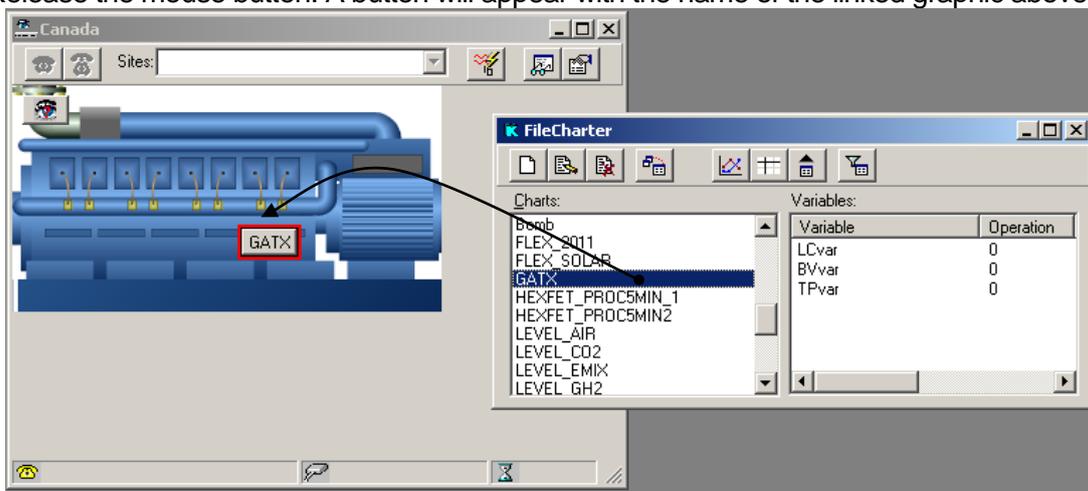


When you click on this button, the link synoptic will open. See [Synoptics – general view of the sites' statuses](#)

**Note:** With the synoptic editor you can replace the button with an image or label.

**7.18.5 Creating a link with a graphic**

- Open the synoptic that will receive the link
- Using the mouse, select the graphic required from the list of measurement histories (“View/ FileCharter” menu). A white square should appear.
- While holding down the button, move the square onto the synoptic, to the position of your choice.
- Release the mouse button. A button will appear with the name of the linked graphic above it.

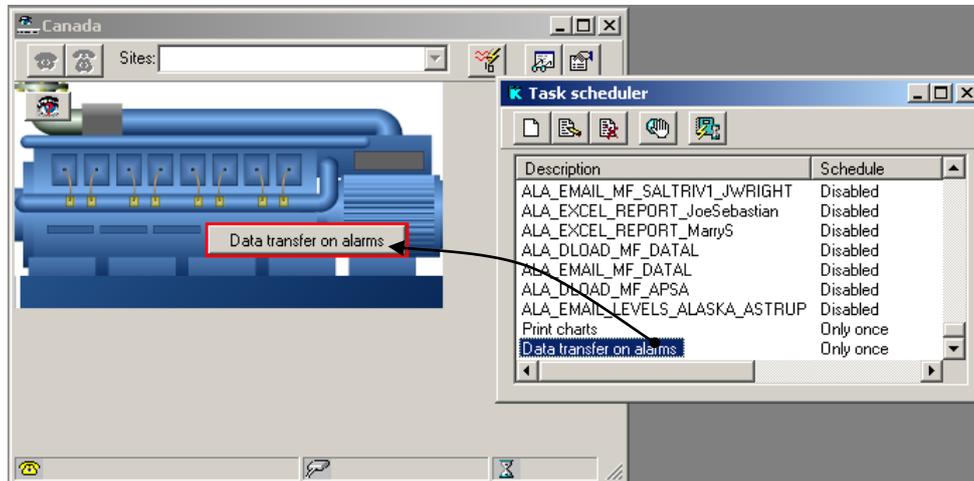


If you click on this button the linked graphic will open. See [Synoptics – general view of the sites' statuses](#)

**Note:** With the synoptic editor you can associate another graphic with the object.

### 7.18.6 Creating a link with one of the taskscheduler's actions

- Open the synoptic that will receive the link
- Using the mouse, select the required graphic from the list of measurement histories (“View / FileCharter” menu). A white square should appear.
- While holding down the button, move the square onto the synoptic, to the position of your choice.
- Release the mouse button and a button will appear with the name of the linked graphic above it.

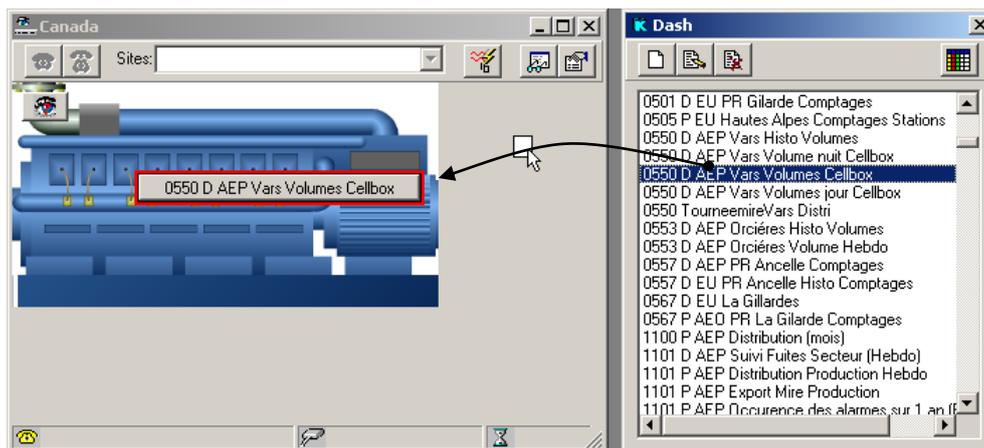


If you click on this button the sequencer's action will be launched.

**Note:** With the synoptic editor you can associate another action with the object.

### 7.18.7 Creating a link with a dashboard

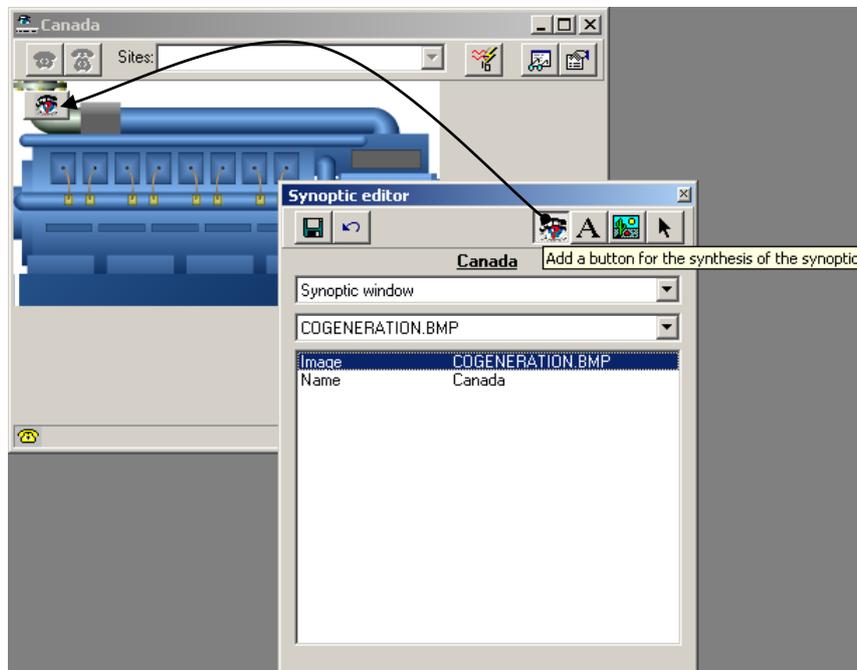
- Open the dashboard list
- Using the mouse, select the required dashboard from the list. A white square should appear.
- While holding down the button, move the square onto the synoptic, to the position of your choice.
- Release the mouse button and a button will appear with the name of the linked dashboard above it.



If you click on this button the linked dashboard will open.

### 7.18.8 Adding a summary of the active alarms for the sites represented

- Open the synoptic editor.
- Click on the  summary button. The mouse cursor will turn into a cross
- Click in the synoptic's background
- The summary access button will appear.



If you click on this button the summary screen will open. See [Synoptic – general view of the sites' statuses](#)

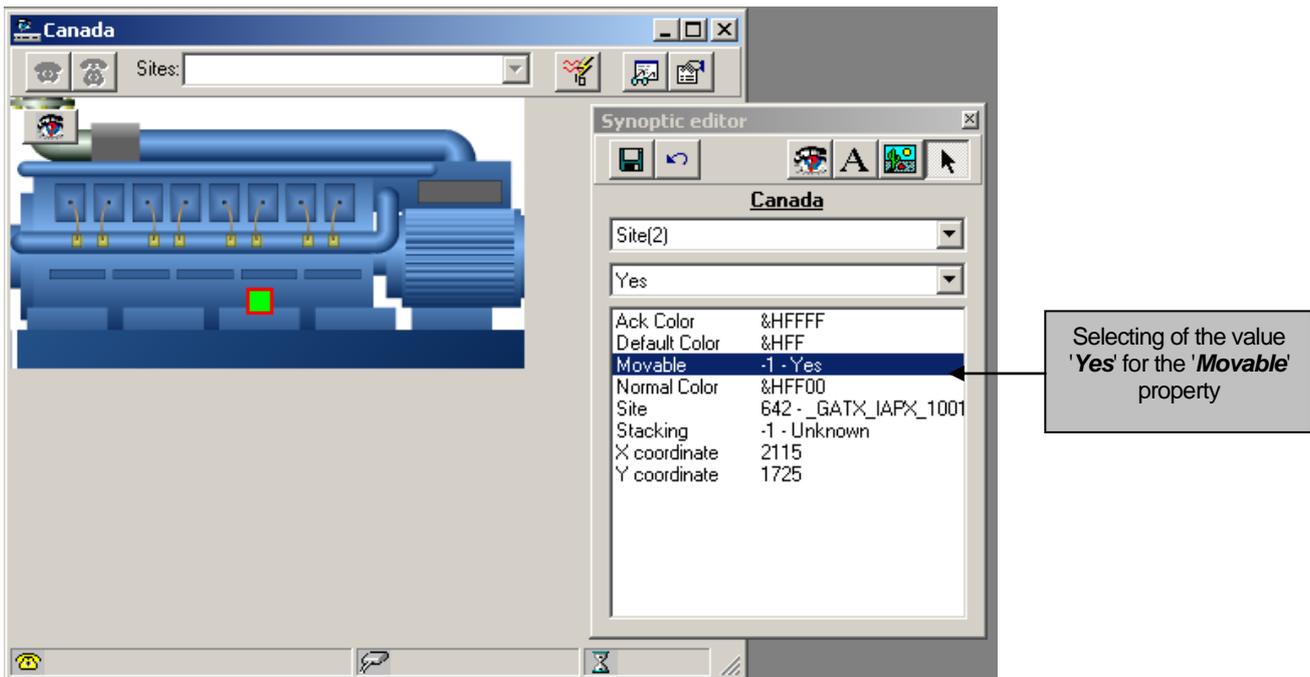
## 7.18.9 Other actions

### 7.18.9.1 Moving an object

When you reopen a synoptic, all the objects will be locked so that they can't be moved by accident. To move an object you must therefore unlock it.

To do this:

- Open the synoptic editor
- Select the object to be unlocked
- Select the **Movable** property and set its value to **'Yes'**



- One can now freely move the object by dragging and dropping with the mouse.

### 7.18.9.2 Deleting an object

To delete an object, select it with the mouse then press the [Del] key on your computer keyboard. You can also move it into the recycle bin on KERWIN's general button bar.

7.19 SYNOPTIC – VARIABLE ANIMATION

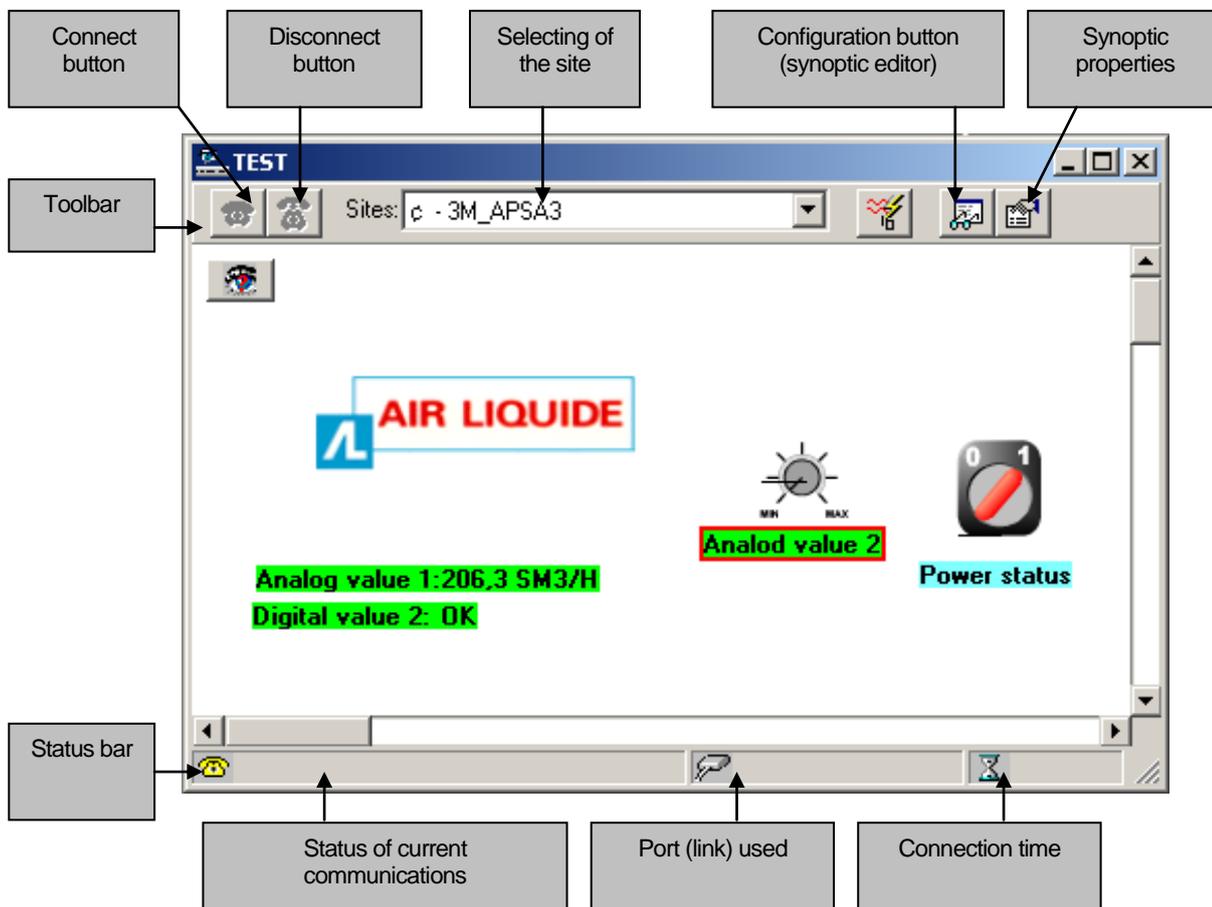
7.19.1 Presentation

Each synoptic is created from a background image in Bitmap format. This image must be previously drawn using a Bitmap file editor programme (e.g. Paintbrush). It is also possible to use Bitmap files created from digitised photos or pictures (usually via scanner).

The synoptic editor can then be used to associate a set of static or dynamic objects, graphics or texts with this static background image. These objects, which include local unit monitoring variables, allow the creating of the msynoptic’s animation.

**Note:** The synoptic module can only be implemented with the following initial configuration

- Availability of the option in the KERWIN key
- Assigning of the value 1 to the **taskactivate** and **synoactivate** parameters of the [taskpar] section of the configuration file (see [HMI start-up configuration](#)); selecting **taskactivate=0** and **synoactivate =1** allows the implementing of synoptics, but without physical links to the sites (therefore without animation).



## 7.19.2 Synoptic objects: terminology and functions

### 7.19.2.1 Different types of object

Three types of object are used to create KERWIN synoptics:

- Labels
- Buttons
- Images

A particular type of object, the Graphics, is available only for graphics.

#### 7.19.2.1.1 *Labels*

Three types of label are available:

##### 7.19.2.1.1.1 Static labels

These allow the writing of titles or other texts on synoptics.

##### 7.19.2.1.1.2 Switching labels

Like the switching buttons, these allow the opening or activating of other synoptics.

##### 7.19.2.1.1.3 Analogic labels

These are linked to the local stations' analogue variables (analogue inputs and outputs, meters). They allow the displaying of the variables' instantaneous values and/or remote management.

##### 7.19.2.1.1.4 Digital labels

These are linked to the local stations' logical variables (logic inputs and outputs). They allow the displaying of the variables' instantaneous values and remote adjusting.

#### 7.19.2.1.2 *Buttons*

##### 7.19.2.1.2.1 Switching buttons

They allow for linkages between synoptic.

#### 7.19.2.1.3 *Images*

These are images defined in point mode (bitmap). The images must be created using a bitmap editor (for example, **PAINTBRUSH**). They must be saved in bmp, gif, jpg, or wmf format in KERWIN's installation directory in the **images** folder. Their names must include the figure '1' as the last character: for example, MaBelleImage1.jpg.

Five types of image are available:

##### 7.19.2.1.3.1 Static images

These have the same role as static labels. They allow the adding of a logo or a graphic element fixed on the synoptic's background. They can also be used as a background to a gauge type image (superimposing of the two images)

##### 7.19.2.1.3.2 Switching images

Like switching buttons, these allow the opening or activating of other synoptics.

##### 7.19.2.1.3.3 Gauge images

These are vertical, horizontal or circular and are used to graphically display the status of an analog value (input, output or meter)

##### 7.19.2.1.3.4 2 status images

These are used to graphically view the status of logic inputs and/or control logic outputs remotely. To do this, two complementary images must be created, whose names will be the same but added to with the numbers **1** and **2** (e.g. MATELE**1**.JPG and MATELE**2**.JPG).

##### 7.19.2.1.3.5 N status images

These operate on the same principle as 2 status images; however, they can graphically represent the N different statuses of analogue inputs or outputs. As previously, N images must be created whose names will be the same but added to with the numbers **1** to **N**.

### 7.19.2.2 Object properties

Each object is characterised by a set of properties that depend on the type of object, its specific attributes and its position on the synopsis:

- X, Y coordinates
- Colour
- Character font and size
- Reference of the corresponding variable on the local station
- Reference of the associated Bitmap image
- .....

These various properties may be viewed, and possibly modified, using KERWIN's synopsis editor.

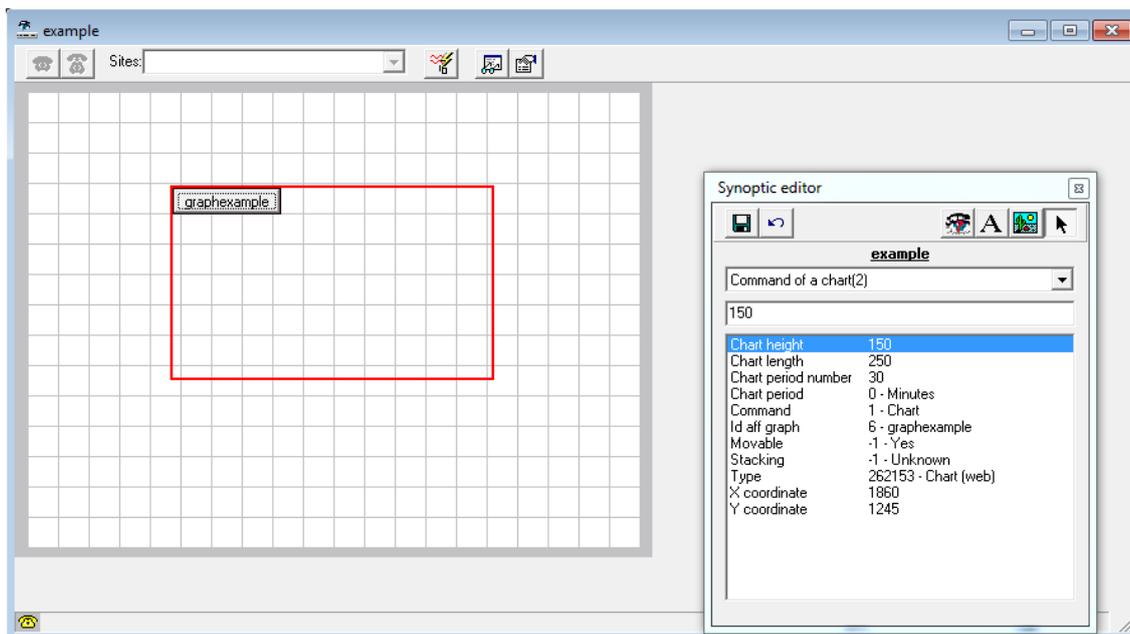
### 7.19.2.3 Graphics-type objects

When a graphic is added to a synopsis, it can be set with one of the three standard object types (button, label, image), or it can use a 4<sup>th</sup> type: graphic.

This object type, **displayed only in kerweb**, allows to display the graphic itself in the synopsis. In kerwin interface, the object will appear as a button.

Two properties allow the user to set the width and height of the graphic. These dimensions are pictured by the red selection box around the item.

The period and period number allow the user to set the range of the data displayed on the graph. The end date for this data will always be the current time and date.

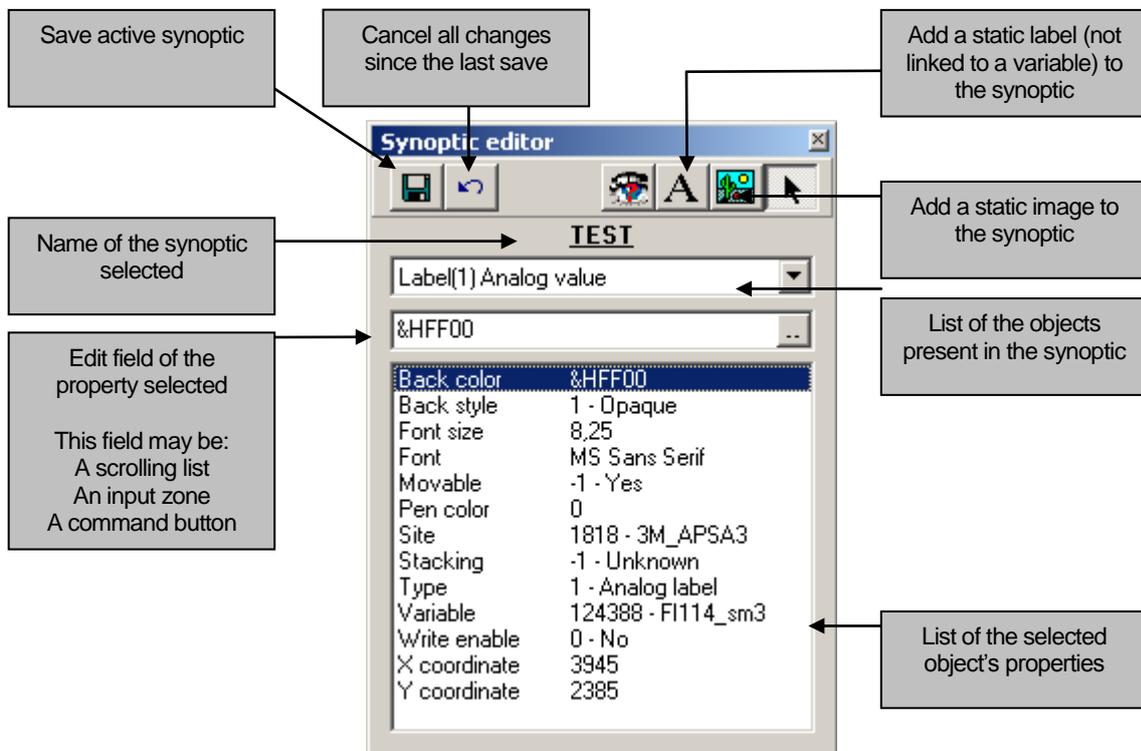


### 7.19.3 Synopsis editor

KERWIN's synopsis editor is a form that appears in **Edit mode** if you right-click in the synopsis's background. It automatically disappears once the synopsis has been minimised or closed, and of course if you return to view mode.

You can use this editor to configure your application's synopsics and then possibly modify them during operation: choosing of the background image, integrating of various objects, etc.

It also allows changes to be saved in the database, or their cancelling by returning to the synoptic's previous state.



The editor can be used to modify the properties of the various objects on the synoptic. To display all an object's properties, just select it:

- By clicking directly on the synoptic,
- From the list of objects of the editor itself.

Each time that you change a property, your input must be confirmed by pressing the [Enter] key on your computer keyboard.

#### 7.19.3.1 Edit field

The synoptic editor's edit field can be used to modify the various properties of the object selected.

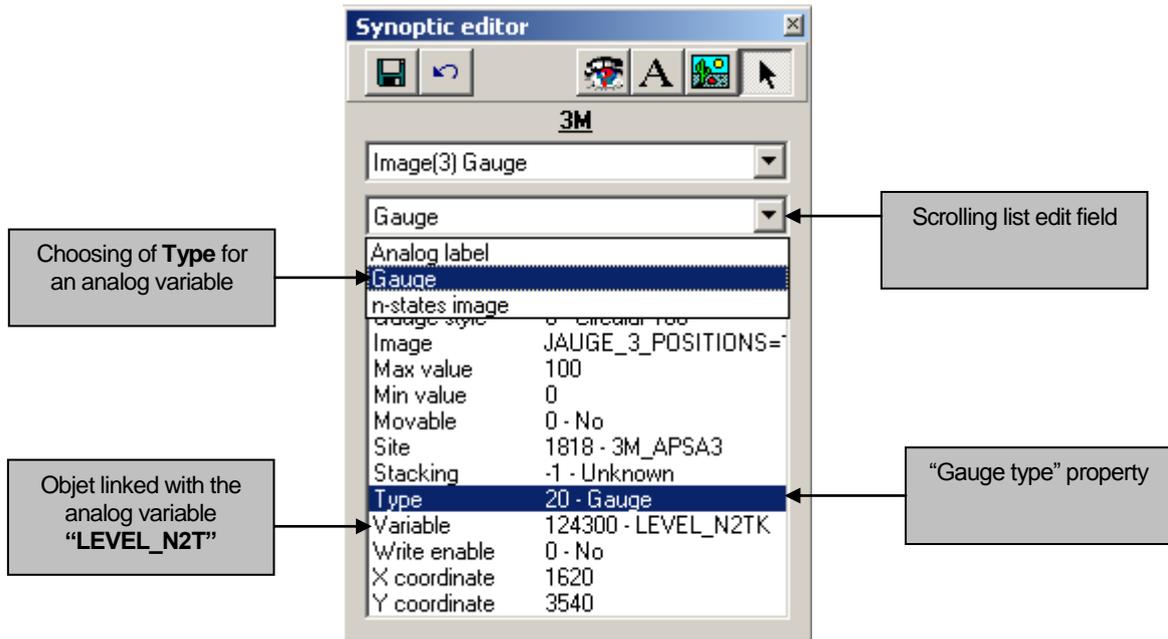
Depending on the nature of the property, this field may be:

- An **input zone**, if the property is numeric (object coordinates, size of characters, etc) or if it is a display format. On the previous screen, the property edited is the *X coordinate* of the object *Analogue label(13)*
- A **scrolling list** if the property must be selected from a group of elements (choosing of the site or the variable, choosing of the character font, choosing of the medium, etc).
- A **command button** if the property calls on a set of information. Pressing this button causes the opening of a dialogue box that, depending on the property, may be: the file directory dialogue box for the selecting of an image, the colour pallet dialogue box for the selecting of a colour to be assigned to the object, etc.

#### 7.19.3.2 Type property

This property is used for "linked" objects. It mainly relates to variables and switches.

For variables, it allows a transition from textual display (digital label, Analogic label) to graphic display (2 status image, Vertical and horizontal gauge) and vice versa:



For switches, it allows you to select displaying in the form of a button, image or label.

**Note:** Variable objects have a *Label* medium by default. Switching objects have a *Button* medium by default.

**7.19.3.3 Gauge style property**

This property is used for gauge type analog variables (gauge medium). It is used to specify the type of gauge and its behaviour on the synoptic.

There are 8 gauge styles:

- Down–up vertical
- Up-down vertical
- Right-left horizontal
- Left-right horizontal
- Clock 180° circular
- Inverse 180° circular
- Clock 360° circular
- Inverse 360° circular

**7.19.3.4 Variable property**

This property is used for objects linked to a variable. It indicates the name of the variable currently linked to the object and allows the selecting of another variable from a scrolling list.

**Note:** If you need to change the reference of the variable associated with the object, the synoptic editor returns the default properties to the object. This means that if the object is an image, it once more becomes a label when the variable is changed.

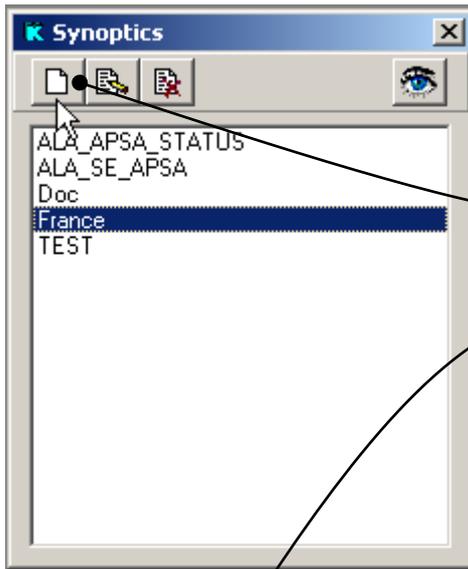
7.19.4 Creating a synoptic

7.19.4.1 Initial declaration

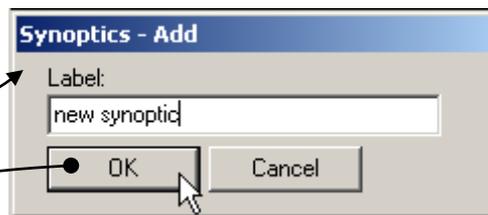
ACCESS: CONFIGURATION / SYNOPTIC OR 

The first operation to be performed if you wish to create a new synoptic is declaring it in your application's list of synoptics; this declaration is made in the synoptic item of the configuration menu (see [Familiarisation / Presentation of menus](#)).

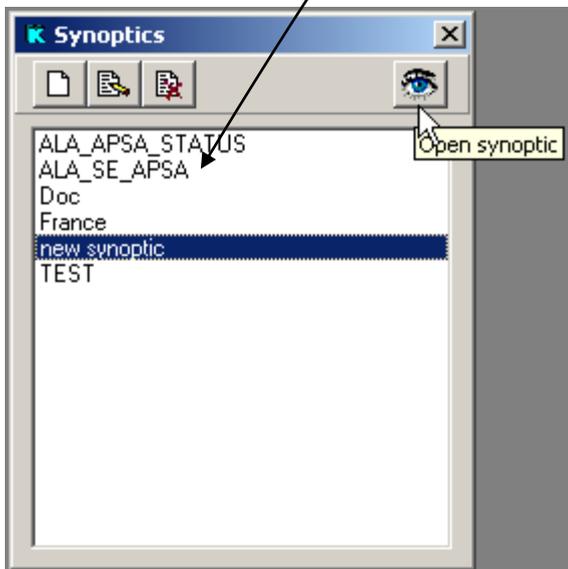
KERWIN will then display the window allowing the creating, modifying and deleting of synoptics:



Click on the  create button; the following dialogue box will appear:



Enter the name of the synoptic that you wish to create (here New synoptic), then confirm by clicking on the OK button.

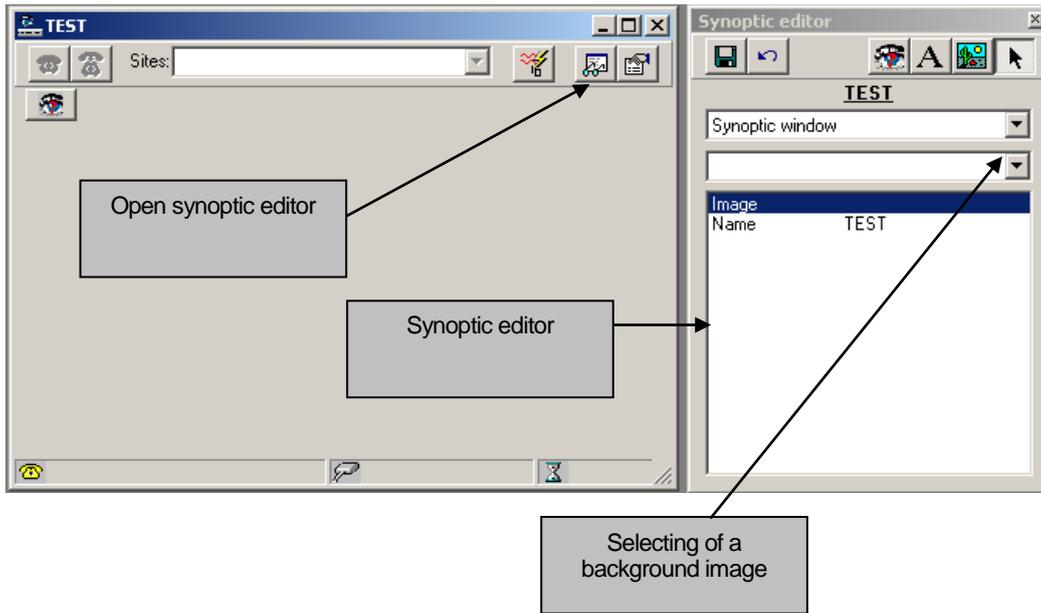


The new synoptic will be saved in the list of synoptics. For the moment it is not linked to any sites and no graphic objects are associated with it.

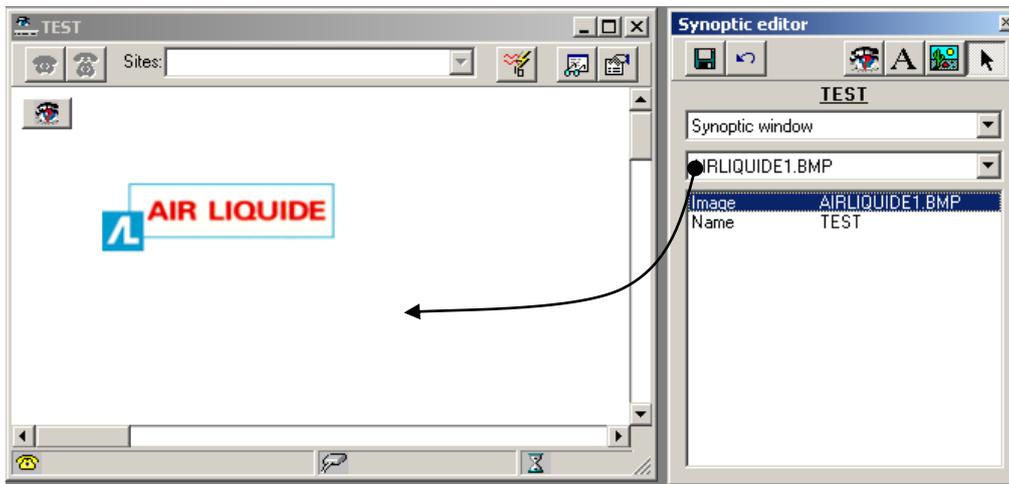
Click on the  button.

KERWIN will display a window that will be the medium for creating your new synoptic, along with the editor window, providing that you are in **Configuration mode**.

7.19.4.2 Integrating a background image



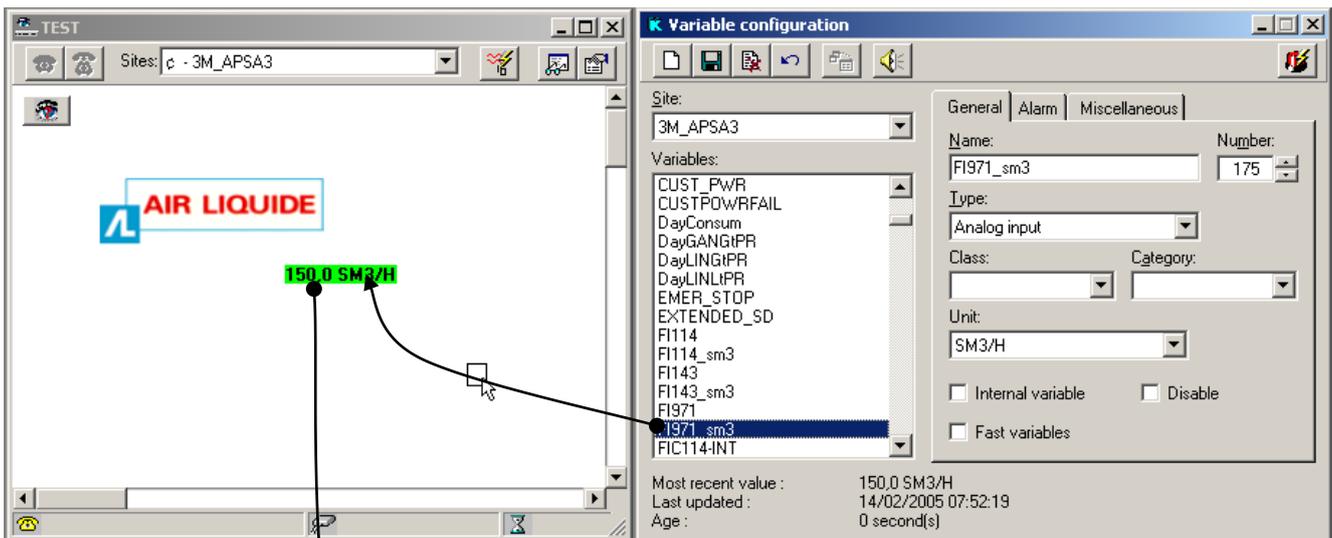
- Open the synoptic editor. If the synoptic has just been created, it will suggest associating a background image (the **Synoptic** object's **image** property).
- Select an image from the scrolling list.
- The image will immediately be displayed in the synoptic's background (here blanc.gif).



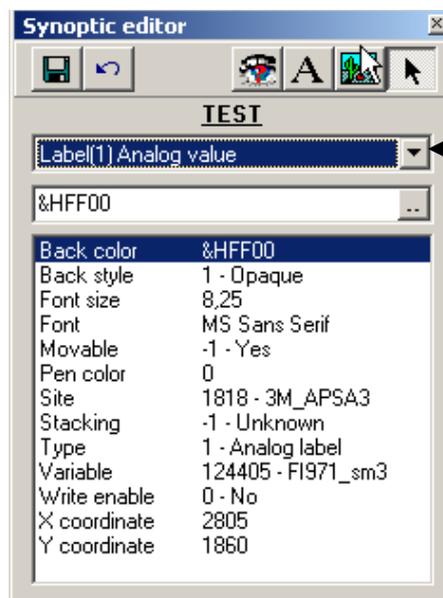
**Note:** The images proposed in the scrolling list are present on the KERWIN PC in KERWIN's installation directory in the **images** folder. You must therefore copy your background images to this location to make them available to the synoptics.

7.19.4.3 Associating and positioning dynamic objects (variables)

- Open the variable configuration window (“Parametering / Variables” menu)
- Select a site from the scrolling list.
- Select a variable from the list, with the mouse’s left button.
- A white square will appear.
- While holding down the button, move the square onto the synoptic, to the position of your choice.
- Release the button.
- A *label* type object will be created on the synoptic. It will display the current value of the variable.
- At the same time, the site name corresponding to the variable that has just been added will appear in the scrolling list of the synoptic named “Sites”.



The object's property sheet appears when it is selected



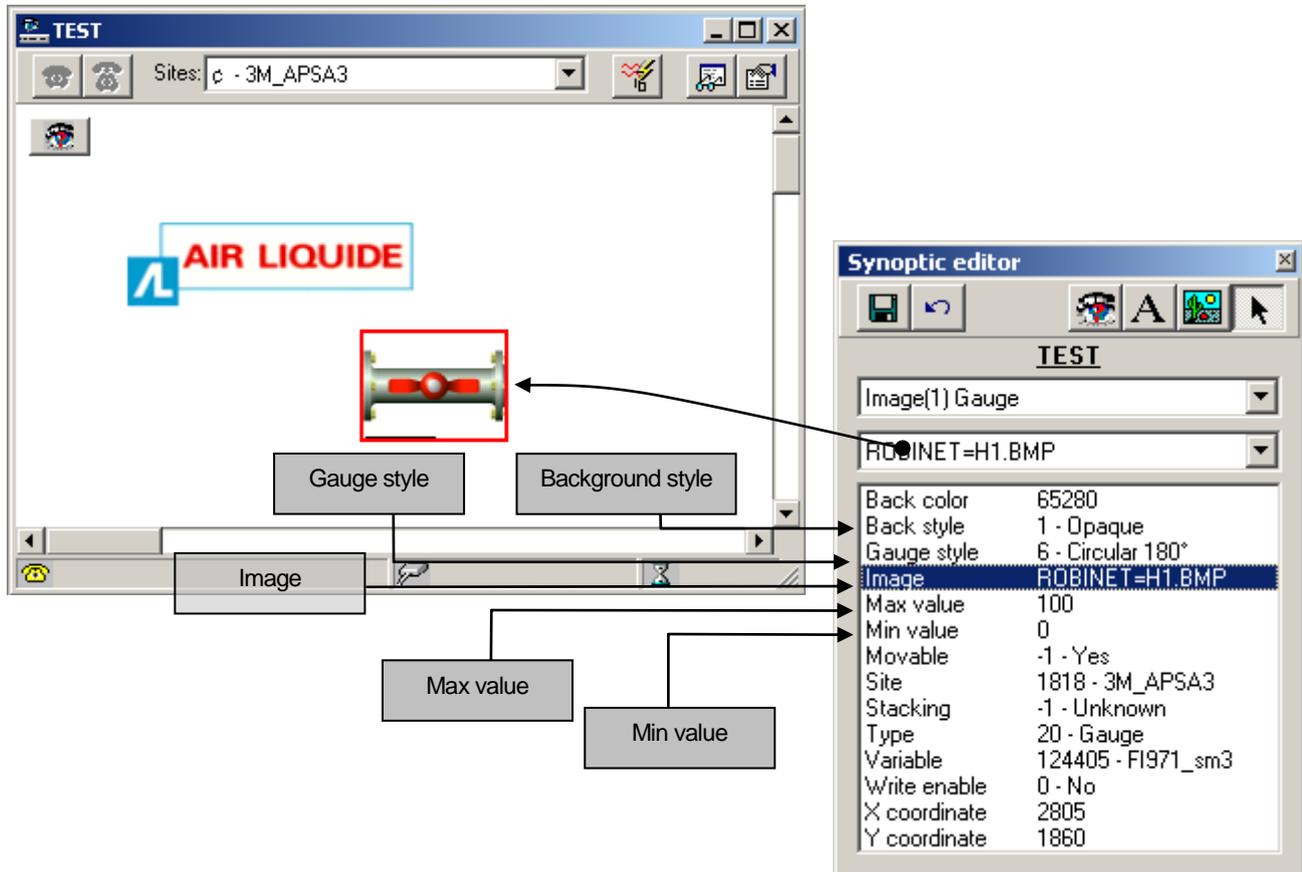
List of objects present on the synoptic

#### 7.19.4.3.1 Gauge type objects

A gauge is a dynamic image whose variations (change in size or rotating of a pointer) are linked to those of the variable, when the synoptic is connected to the corresponding site (see [Connecting to a site.](#))

To create a gauge you must first of all place the analogue variable on the synoptic. The *medium* property must then be set to the “*gauge*” value.

Some new properties will appear:



##### 7.19.4.3.1.1 Min value, Max value

These properties allow the entering of the extreme values of the analogue variable's variations. These values will be used to calculate the size of the gauge's image or the pointer's degree of inclination.

##### 7.19.4.3.1.2 Image

This property is used to select the image used to represent the gauge.

##### 7.19.4.3.1.3 Gauge style

This property is used to define the type of gauge and its behaviour on the synoptic (Cf. [“Gauge style” property.](#))

##### 7.19.4.3.1.4 Background style

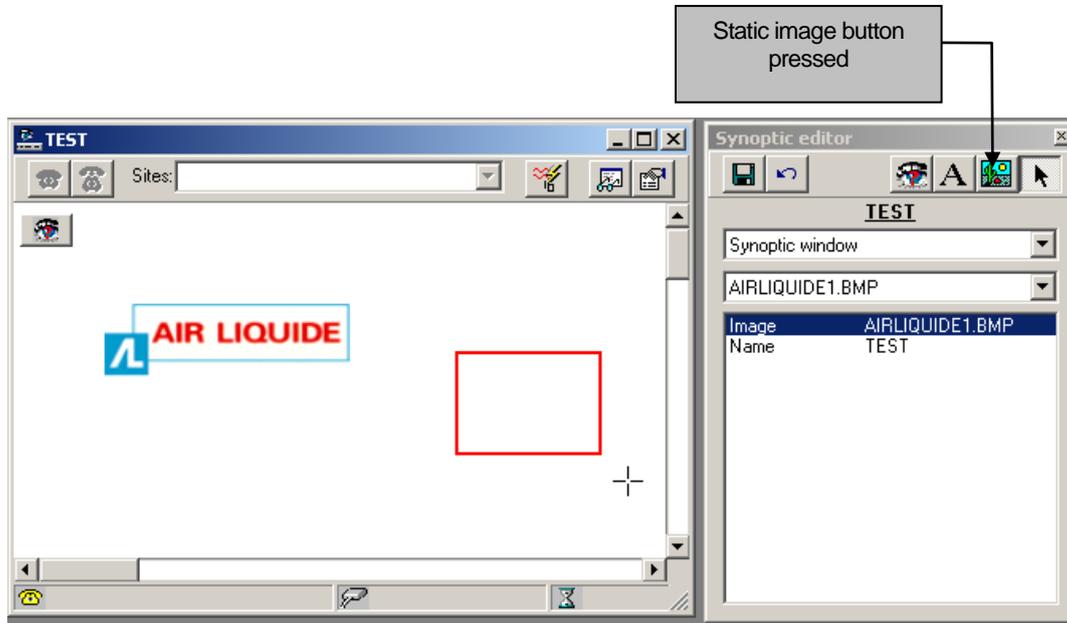
This property takes the values *Opaque* or *Transparent*. If *Transparent* is selected, the gauge colour indicated by the “**Background colour**” property becomes transparent.

**Note:** A gauge may be placed on a static image (Cf. [Adding static objects](#)), but only the background image can be made transparent.

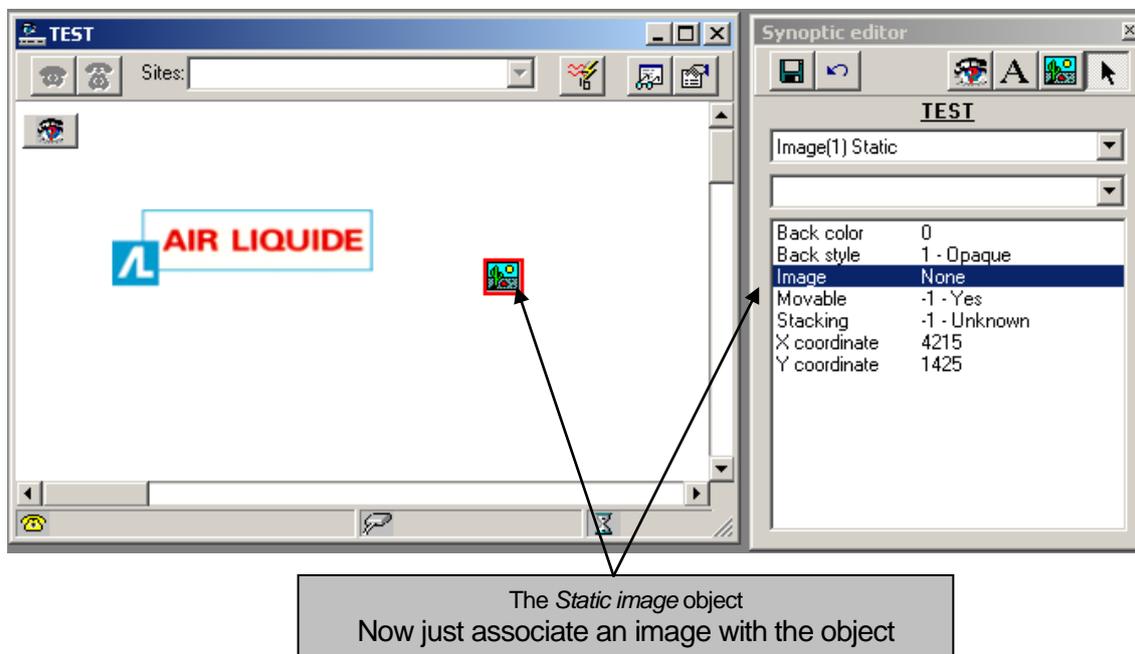
7.19.4.4 Adding static objects

**Static objects** are fixed labels or images that you can freely place on the synoptic's background image.

To create a static object, click on one of the 2 buttons in the top right of the edit window's toolbar corresponding to the type of object required (on 'A' for a label, on **image** for an image).



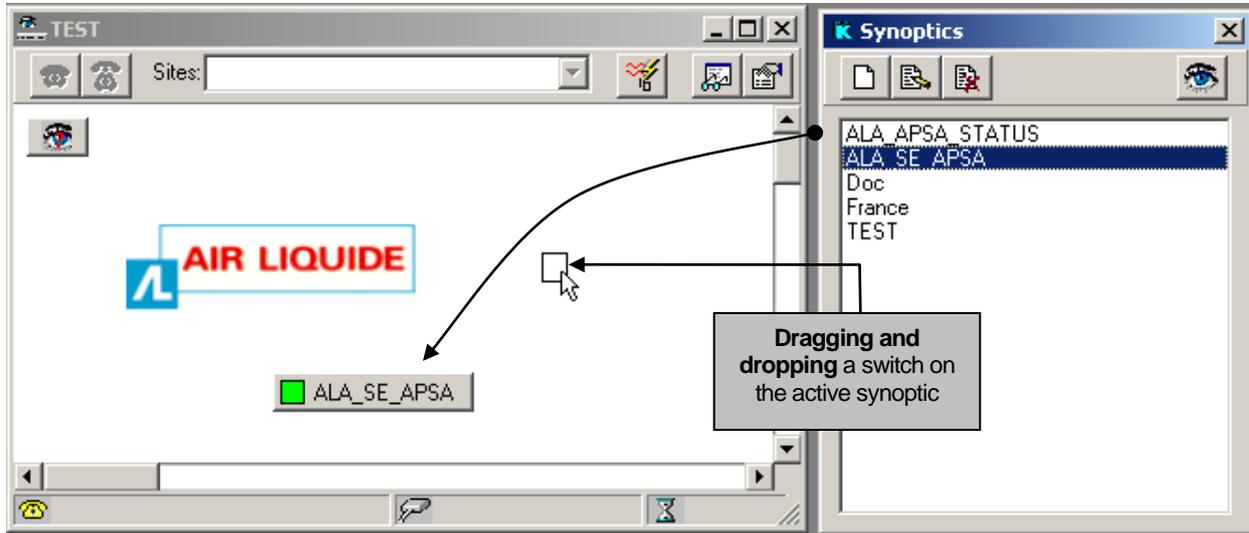
Once the button has been pressed, the mouse pointer turns into a cross above the synoptic. Then all you have to do is draw the object's outline with the mouse, while pressing the left button and, without releasing it, slide the mouse onto the synoptic, which will display a frame.



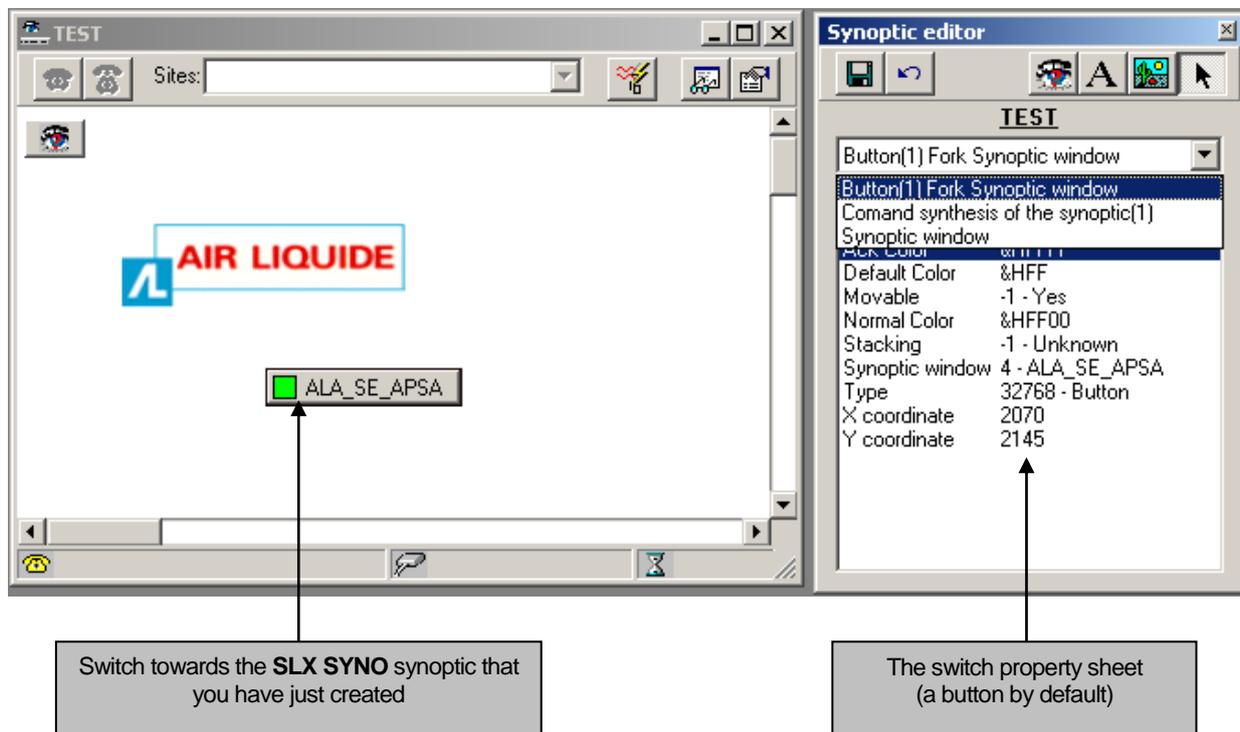
When you release the mouse's left button, the static object will appear. Then all you have to do is edit its properties.

7.19.4.5 Creating switches with other synoptics

A switch is a button or image that allows you to open or activate a synoptic other than that in the screen's foreground to concatenate synoptics together. The principle for creating this object is the same as that of the Variable object. It involves **Dragging and Dropping** from the synoptic operating window to the active synoptic:



When you release the mouse button, the icon representing the switch is replaced with a button indicating the name of the synoptic selected:



**7.19.5 Creating an object by copy-paste action**

Since version 4.4.0 of KERWIN it is possible to copy objects already present on a synoptic. The copy can be made on the same synoptic or to a different synoptic.

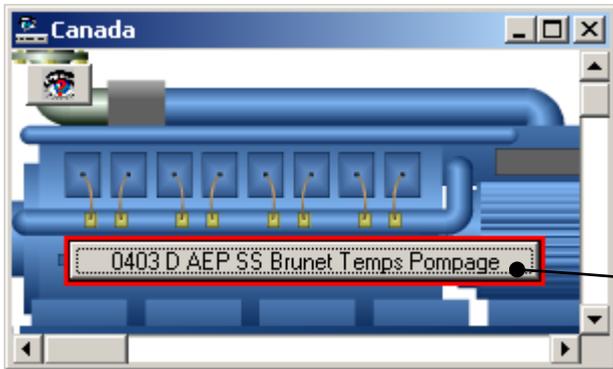
The copy of an object can be executed either from the Edit menu (Edit / COPY) or by pressing the keys CTRL + C, after selecting the object to copy.

The paste of the object can be made either from the Edit menu (EDIT / PASTE) or pressing the keys CTRL + V.

The paste action creates a new object that has the same characteristics as the object copied. The object is put to the location of the mouse pointer, or next to the copied object if the pointer is not above a synopsis.

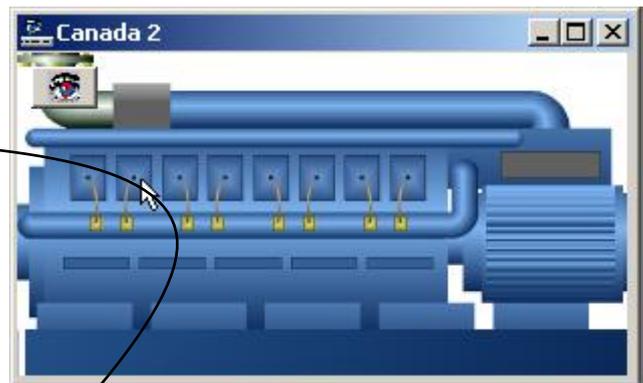
The paste action can be reproduced as many times as possible, except disappearance of the object copied

You can not copy more than one object at a time.

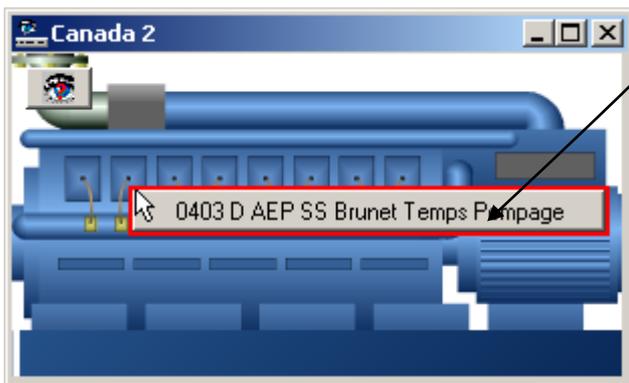


Copy the selected object by pressing CTRL + C

One moves to the location where to copy the object.



Paste of the object by pressing CTRL + V



7.20 TASK SCHEDULER

7.20.1 Presentation

The task scheduler module allows the automating of certain KERWIN functions by programming their execution dates. They may be launched:

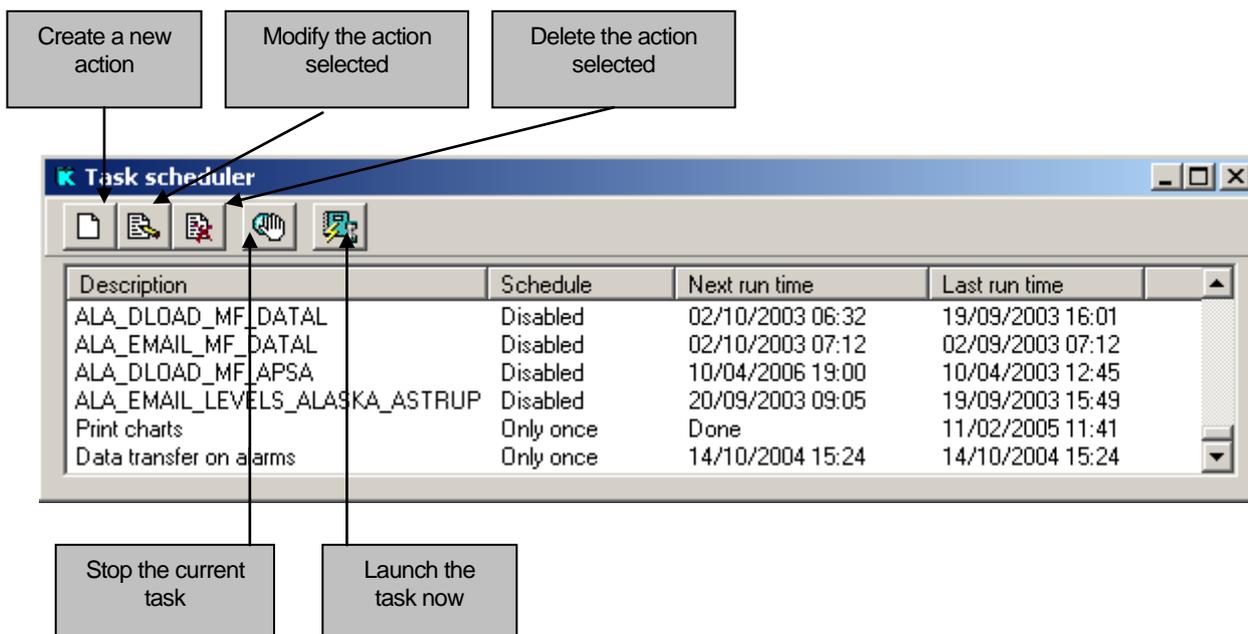
- Once,
- Periodically,
- According to a time programme,
- On receipt of alarms (for file and configuration transfers).

The functions managed by the sequencer module are the following:

- Printing of the log, event listings, graphics and management charts
- Transferring of the local units' configuration and measurement files
- Exporting of measurement files, chart and spreadsheet
- Executing of queries on KERWIN's databases
- Launching of external programmes
- Remote commands and remote management
- Archiving and saving of KERWIN's databases
- KERWIN database management
- Sites management (set time, self-configuration, raw configuration transfer)
- Self-configuration
- Cyclical event generation

7.20.2 Description

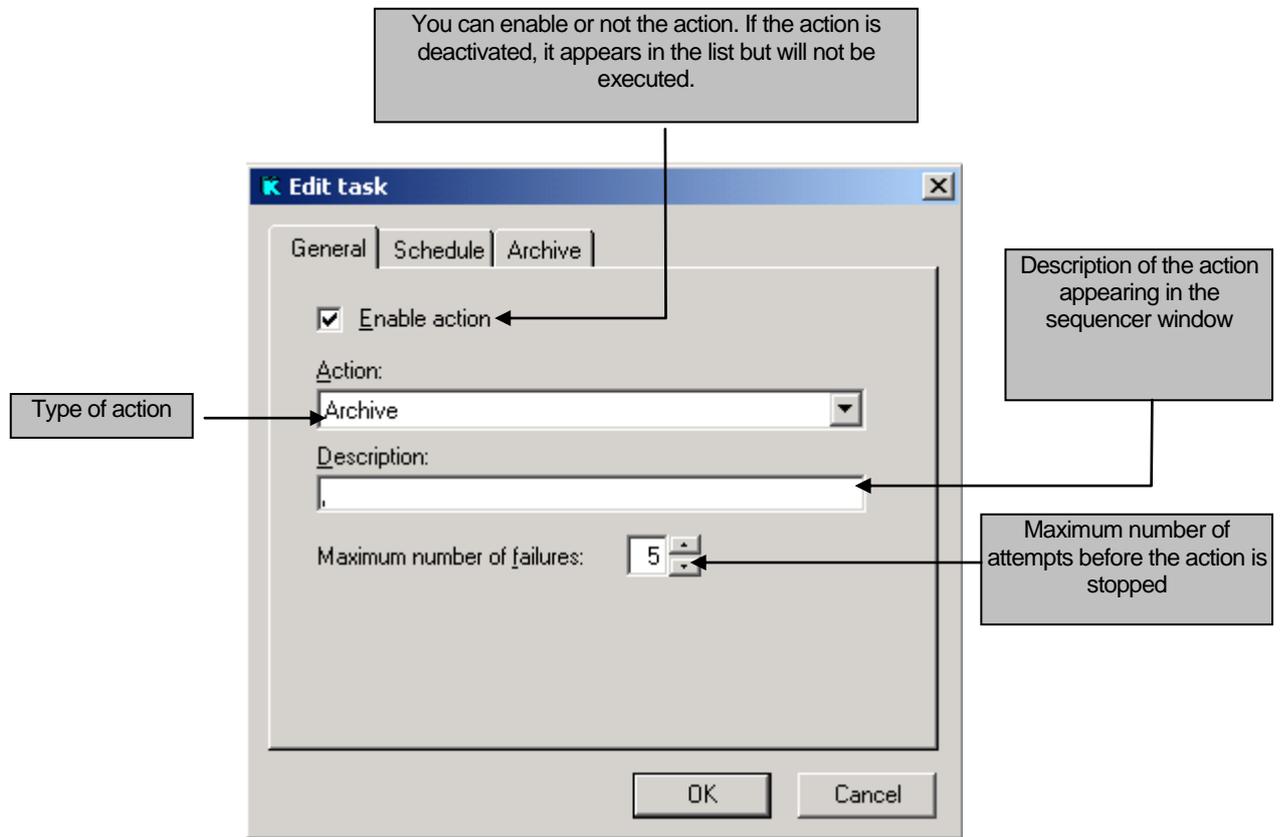
The sequencer module is accesed via the Parametering / Sequencer menu or the  button in the general toolbar. The sequencer displays the actions to be performed in chronological order on the next execution date. The details of each action can be accessed by double-clicking the action or by selecting the action then pressing the  button.



### 7.20.3 Configuring an action

#### 7.20.3.1 General

Creating  or modifying  of an action causes the following window to be displayed:



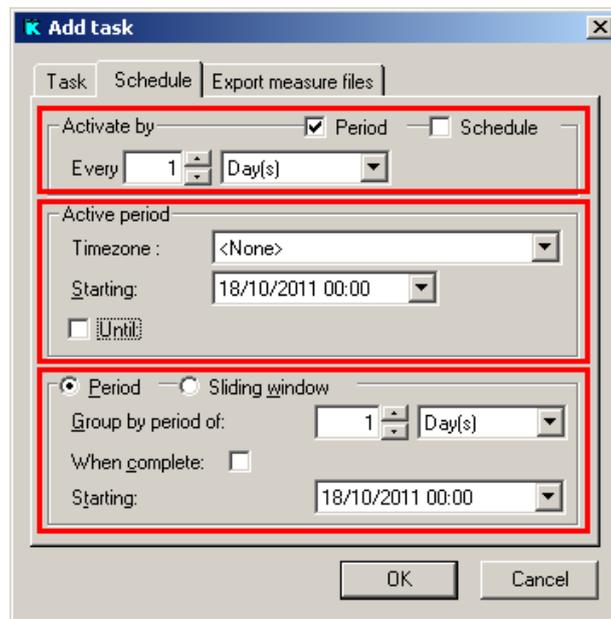
The "General" tab is used to define an action's general parameters, such as:

- The type of action that you wish to have executed
- The name of the action
- The number of attempts in the event of failure
- The deactivation of the action

7.20.3.2 Schedule

The schedule tab allows defining:

- The mode of execution of the action
- Period of validity of the action
- For some actions, ability to specify a period of cutting data to be processed



7.20.3.2.1 Mode of execution of the action

There are three possibilities for the execution of an action. Using the check box near “Activated by”, we can say that:

The action is triggered only once (no box is checked)



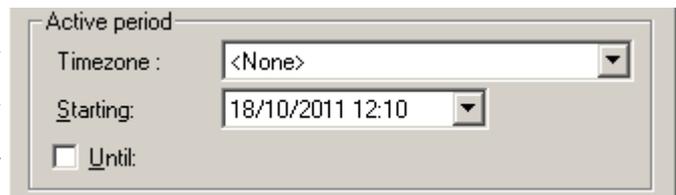
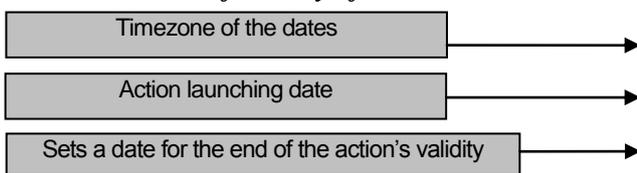
The action is executed periodically (box “period” checked), you must then specify the period in minutes, hours, days, weeks, or months.



The action is executed according to a program (box “schedule” is checked), then you must specify the calendar and the time in which the action is triggered. In the example above, the action will be executed each time the calendar “Standar Year” switches in time “Jour”.



7.20.3.2.2 Period of validity of the action



Date of starting action: if the action is periodic, this date is recalculated automatically to the next occurrence date.

You can also set a date of expiry of the action; hereafter, the action becomes inactive. If the box is not checked, the validity of the action is permanent as of the start date.

7.20.3.2.3 *Actions with the defining of two periods*

For some actions, it is sometimes necessary (and useful) to parameter a segmentation period or sliding window in addition to the "Execute task" and "Task active" items.

7.20.3.2.3.1 Segmentation period

The segmentation period is used to define the segmenting of data according to whole periods or otherwise

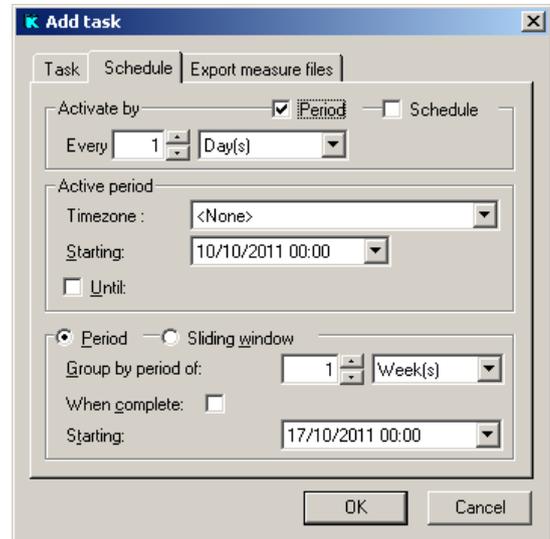
"Group by period of": choosing of the segmentation period in minutes, hours, days or months

"When complete": if this is ticked, the action will only be executed if the sum of the date of the first period and the segmentation period has elapsed.

"Starting": date on which the segmentation date starts

**Example**

Printing of a graph every day with one week segmentation from a Monday



7.20.3.2.3.2 Sliding window

The sliding window is also used to segment data, by sliding a set data range from the task execution period

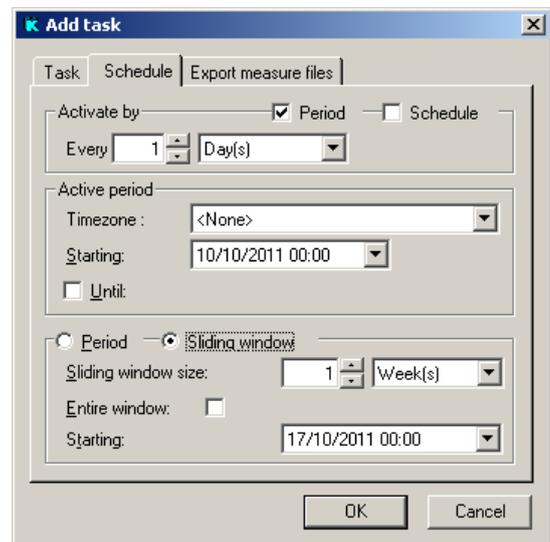
"Sliding window size": Choose the sliding window's range, in minutes, hours, days, weeks or months.

"Entire windows": if this is ticked, the action will only be executed if the sum of the sliding start date and the size of the sliding window have elapsed.

"Starting": date on which the sliding window starts.

**Example**

Printing of graph every day with a one week sliding window. This enables the producing of curves every day with the last 7 days.



**7.20.3.3 Action**

This third tab is used to define parameters specific to each action, such as, for example, the selecting of the measurement files to be retrieved for a "Data transfer" type action.

The following paragraphs will describe in detail the various parameters for each action.

**7.20.4 Archiving and saving access databases**

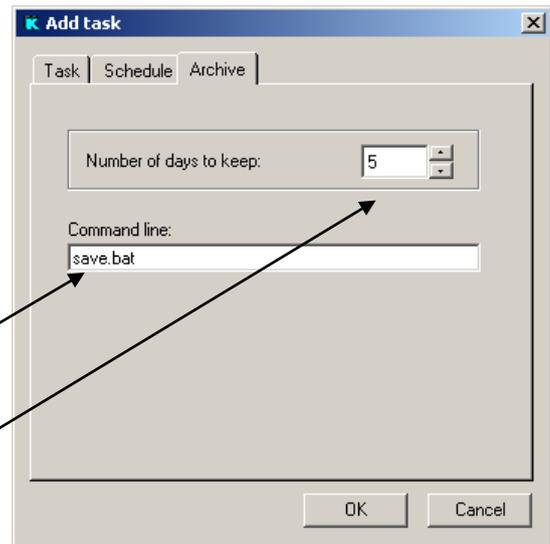
**7.20.4.1 Archiving**

During archiving a copy is made of the two access databases used by KERWIN (main database and measurement database) and the data in these databases is deleted, with only the number of days indicated in the "overwriting period" field being kept.

The "command line" field allows you to indicate whether a programme needs to be launched at the end of archiving (saving onto another disk, for example).

File or executable to be launched at the end of archiving

Number of days of data to be saved after archiving



**7.20.4.2 Saving**

So that a backup is available, you can save both KERWIN databases.

If there are problems with these databases, it is very easy to retrieve the last save made.

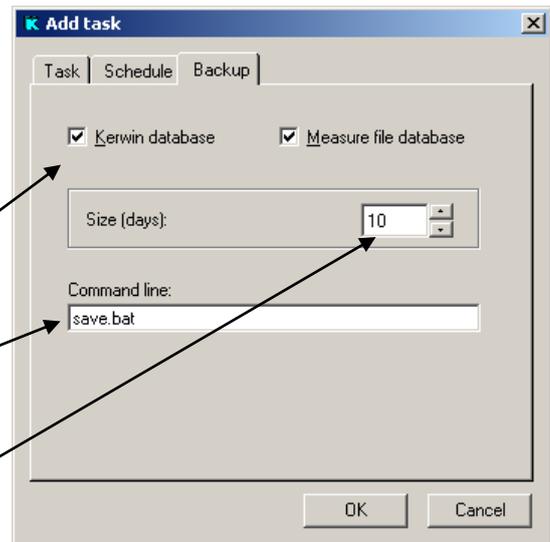
The saving action regularly saves these databases.

The depth indicated allows you to store n backup levels

Selecting of the databases to be saved

File or executable to be launched at the end of saving

Number of backup saves



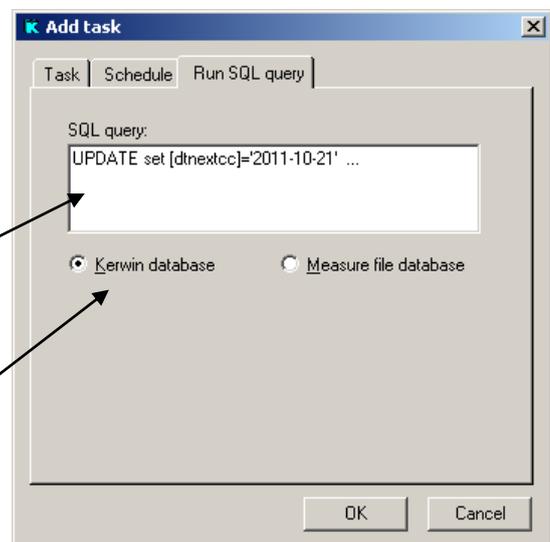
**7.20.5 Executing an SQL query**

This action allows you to execute an SQL query on one of the two KERWIN databases so that you can perform various processing operations and modifications:

- Alarm summary
- Calculations made on measurements originating from sites
- Maintenance
- Etc.

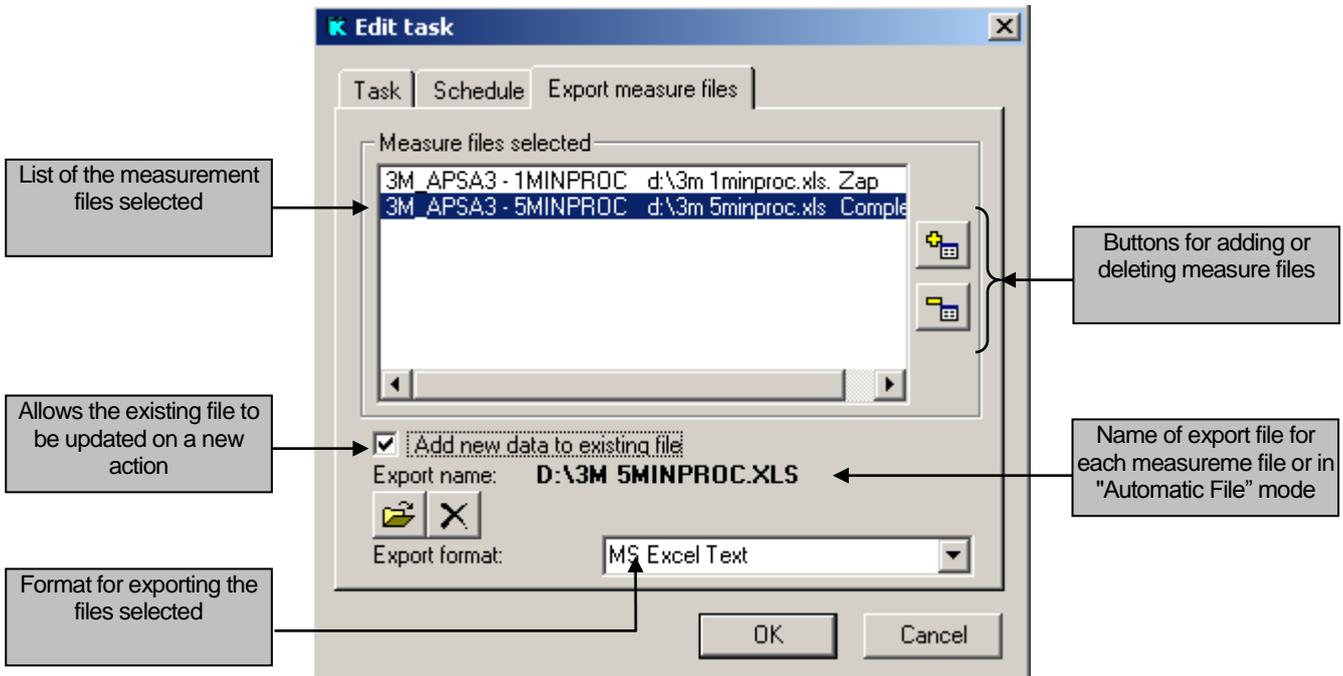
SQL query to be executed

Choosing of the database on which you would like the request to be executed



7.20.6 Exporting measure files

Using this action you can export measure files parametered in KERWIN in the form of tabulated text format files ("Excel Text").



On each execution, you can determine whether the file(s) generated need to be overwritten or updated, by ticking or not ticking the box "Update file".

The files exported have names that may be generated:

Automatically

The name that will be used is created automatically by KERWIN according to the segmentation frequency parameters.

These file names have the following structure:

<letter>	<day of the year>	<year>	<time>	<site n°>
1 character	3 characters	2 characters	2 characters	3 characters

- <letter> A detailed  
B summary  
C analysis 1
- <day of the year> n° of the day in the year from 001 to 366
- <year> year in 2 characters: 98, 99, 00, 01,...
- <time> time of the action's execution
- <site n°> satellite number (cf. Site configuration)

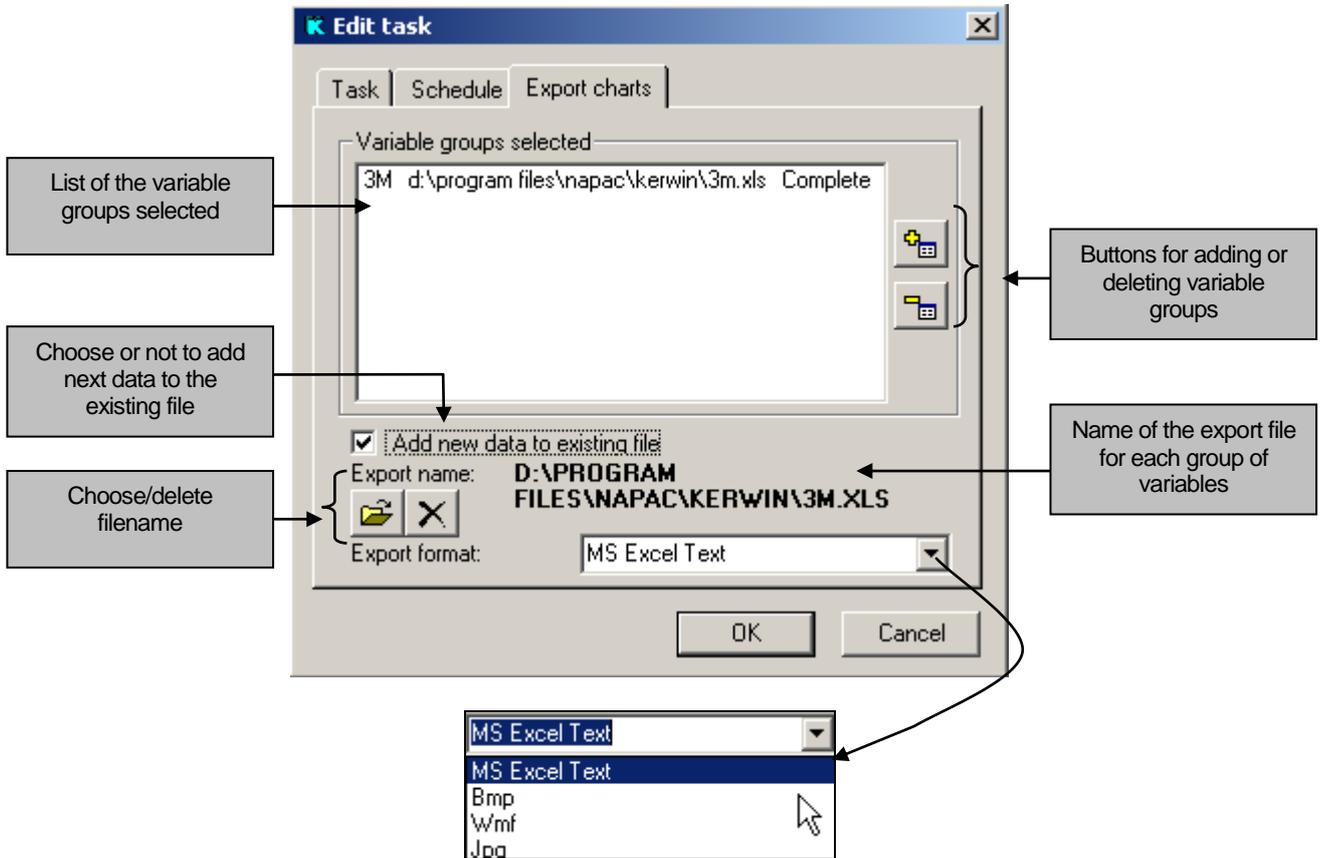
The date used is that of the first measurement contained in the file.

Set by the user

KERWIN will use the name set by the user by pressing the button.

7.20.7 Exporting charts

Using this action you can export the variable groups parametered in KERWIN in different formats.



The graphic export formats are the following:

- Excel text (for parametering, refer to the section above, “Exporting measurement files”)
- BMP
- WMF
- JPG

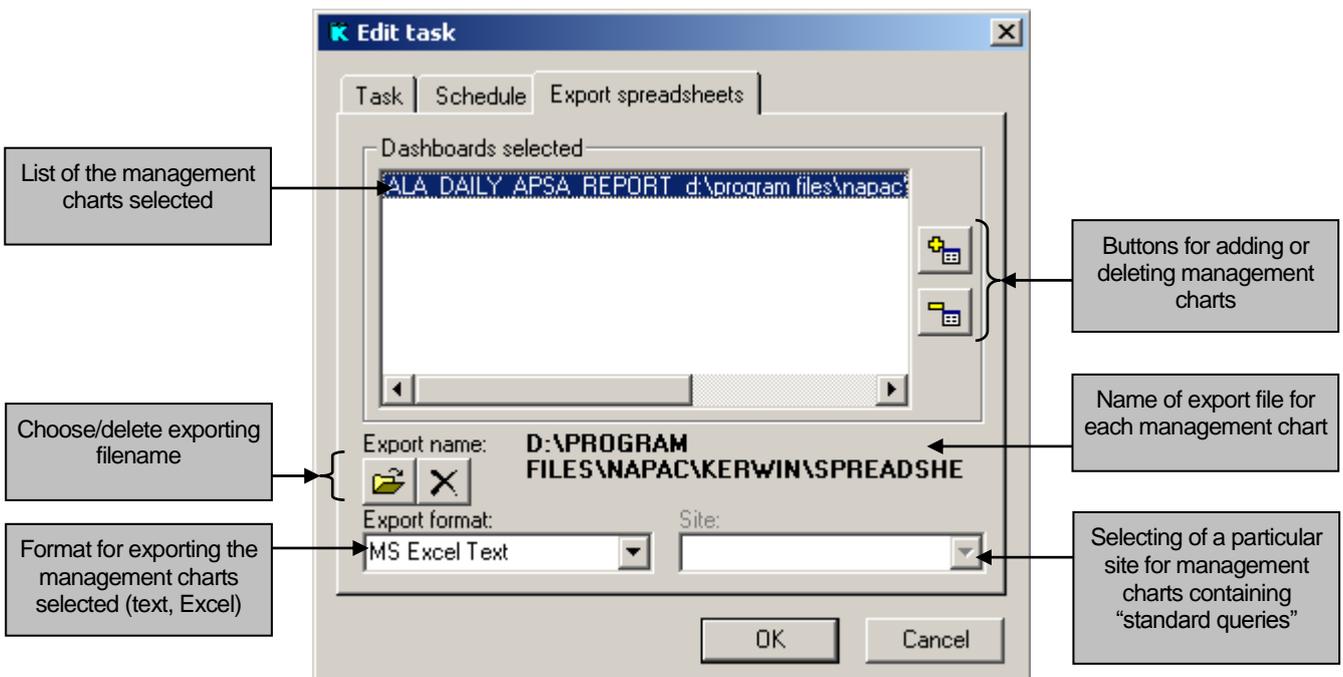
The export files in BMP, WMF and JPG formats are of course overwritten on each execution.

**7.20.8 Exporting spreadsheets**

The export dashboard allows you to periodically generate files in "text" or "Excel" from a dashboard based on a specific date. Files can be saved as such or be sent as attachments in an E-mail to a recipient.

For the spreadsheet containing "standard requests" (see section 9, "spreadsheet"), you can choose the site required for preliminary calculation on exporting.

**7.20.8.1 Export to file**

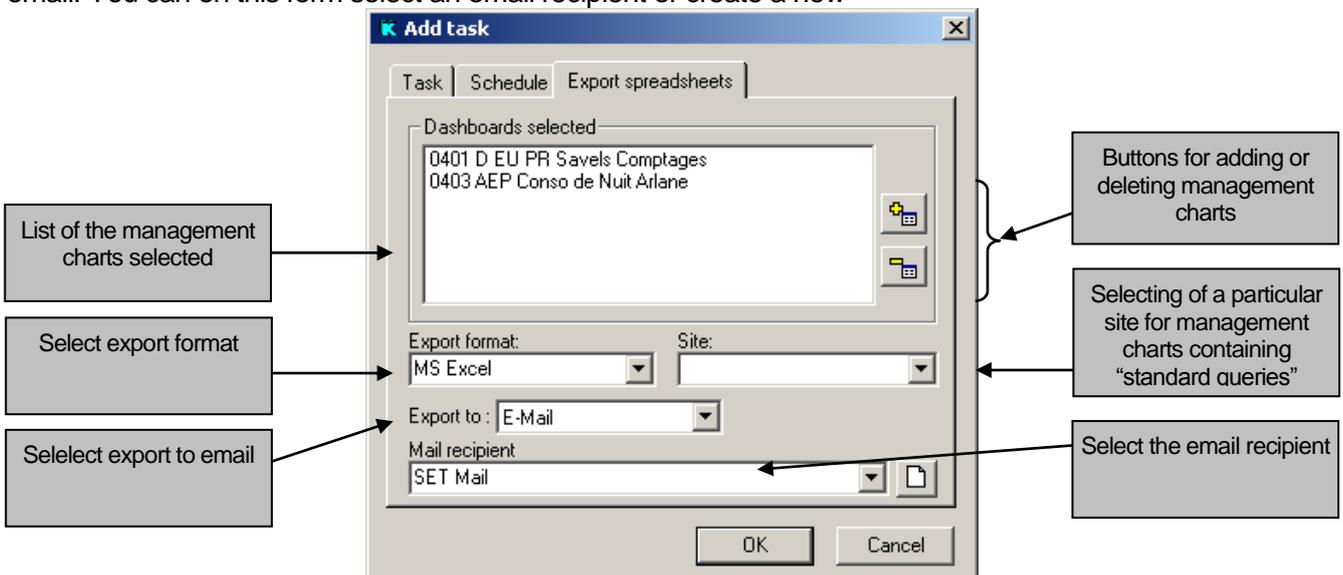


The files exported have names that may generated manually or automatically (refer to the section "Exporting measurement files").

For this type of exporting, the files generated (in txt or xls format) will be overwritten on each execution.

**7.20.8.2 Export to email**

Exporting to email allows you to send Dashboards in Excel or tab-delimited text as an attachment to an email. You can on this form select an email recipient or create a new



**7.20.9 Export events group**

The action of export listing of events can generate periodic files in "Excel" from one of the listings of events present in Kerwin (Menu Consultation / Events).

Task tab

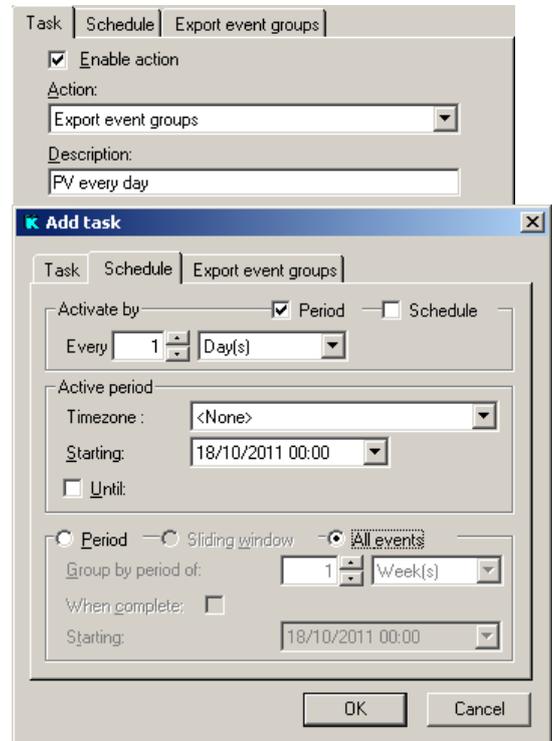
Select "Export event groups" and describe in this export

Schedule tab

See schedule section in this chapter

An additional check box (All evts) to specify the export of all events selected listings

Note: the choice "sliding window" is not available for export listings of events



Export event group tab

Use the buttons  or  to select (add or remove) groups of events from those defined (see Menu Consultation / Events)

The exported files have names that can be generated:

Automatically:

The name to be used is automatically created by KERWIN depending on the setting of the frequency of cutting and the name of the group of events.

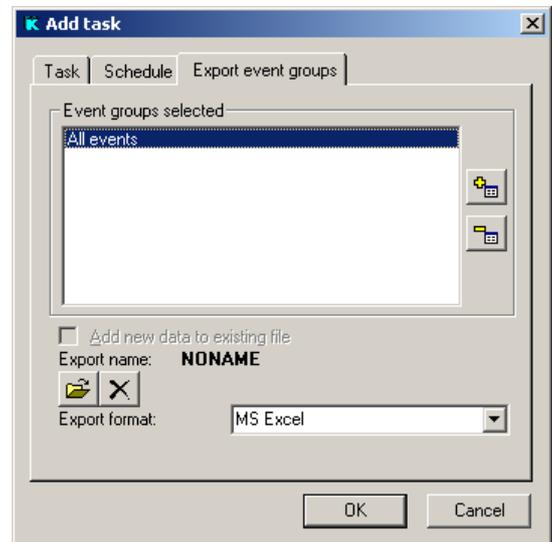
KERWIN creates a file by group configured in the task.

These files are stored in the directory specified in the configuration file KERWIN32.CFG, section [exportation], item "repertoire"

Manually:

KERWIN use the file name selected by the user via a mouse

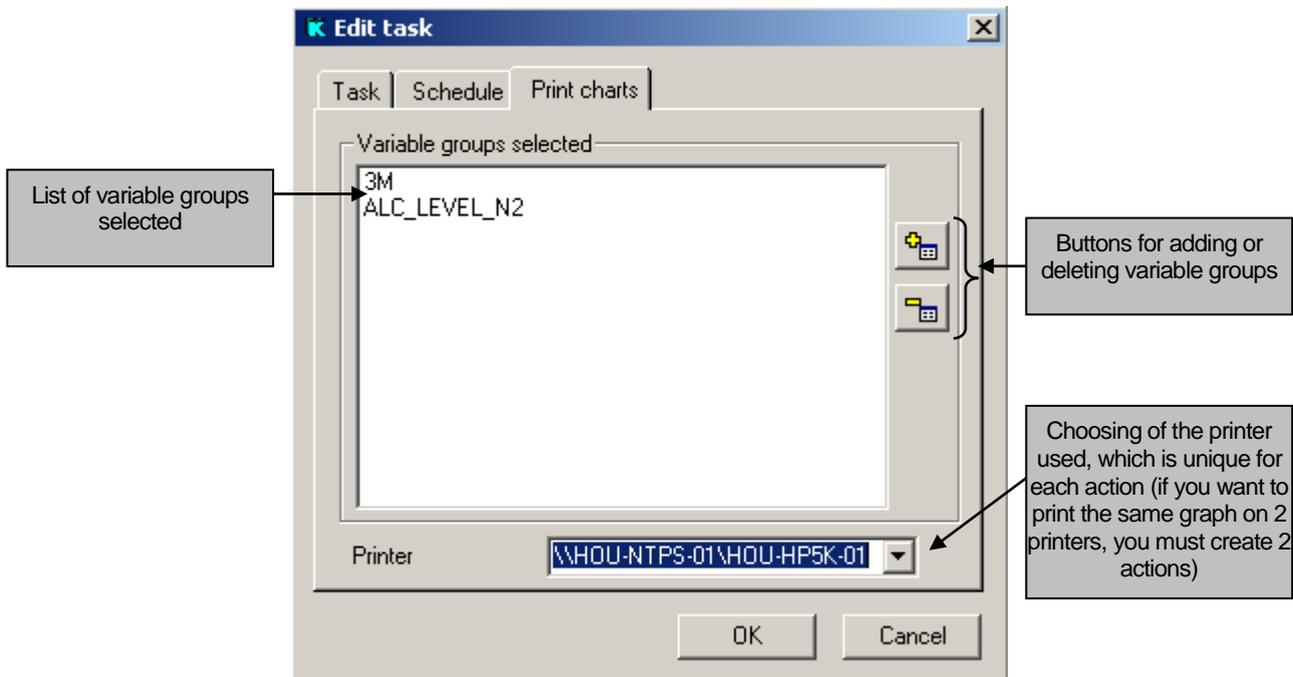
click on the  button (a file by group of events) In this case, each time you run, you can determine if the generated files have to be overwritten or supplemented; this by checking or unchecking the box "Add new data to existing file".



7.20.10 **Printing charts**

7.20.10.1 **Printing to a printer**

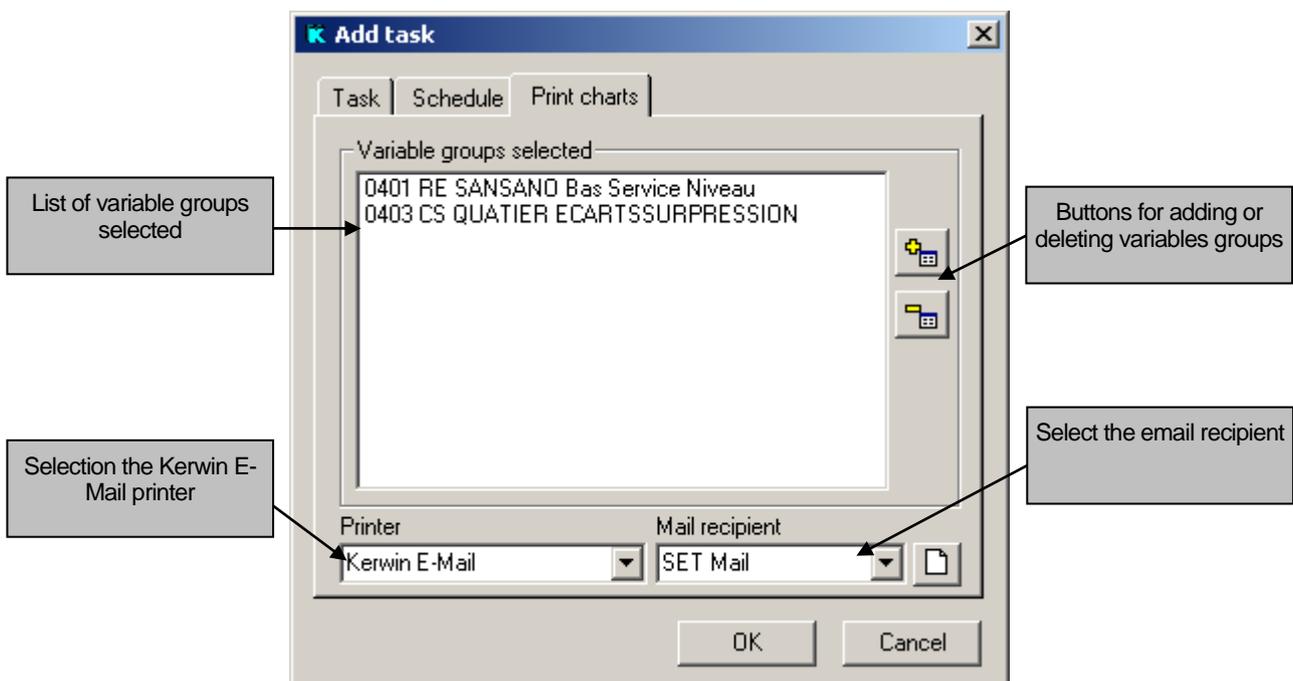
With this action you can periodically print the variable groups selected in graphic form



**Note:** the printer name must not exceed 31 characters.

7.20.10.2 **Printing to email (PDF)**

This action allows you to send periodically email with graphics in PDF format. To send mail, select the printer "Kerwin E-Mail in the list. The list of recipients appears



7.20.11 **Printing event group**

7.20.11.1 **Printing to a printer**

With this action you can periodically print the events present in KERWIN from existing event tables.

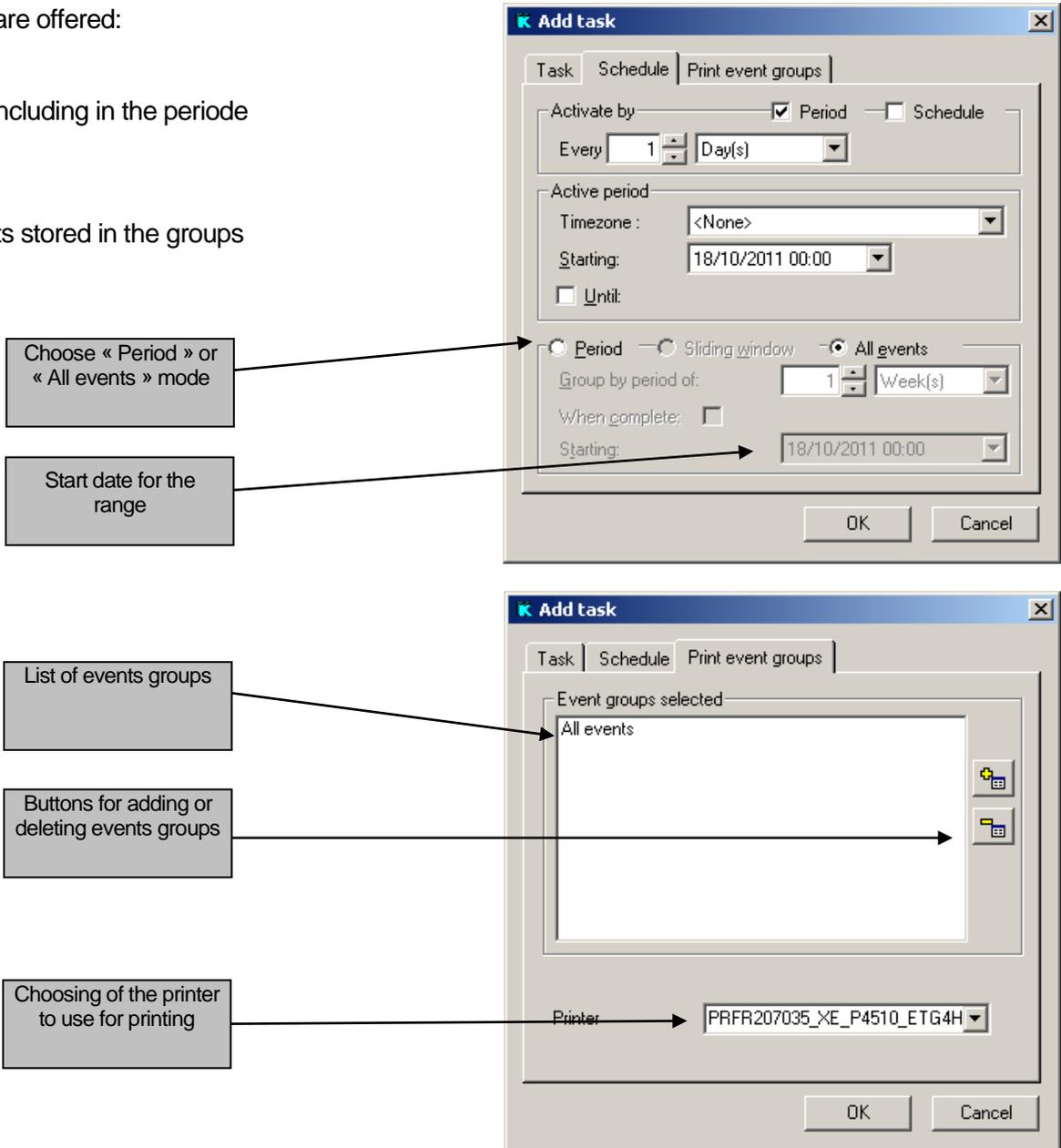
Two options are offered:

Period

Print events including in the periode defined.

All events

Print all events stored in the groups



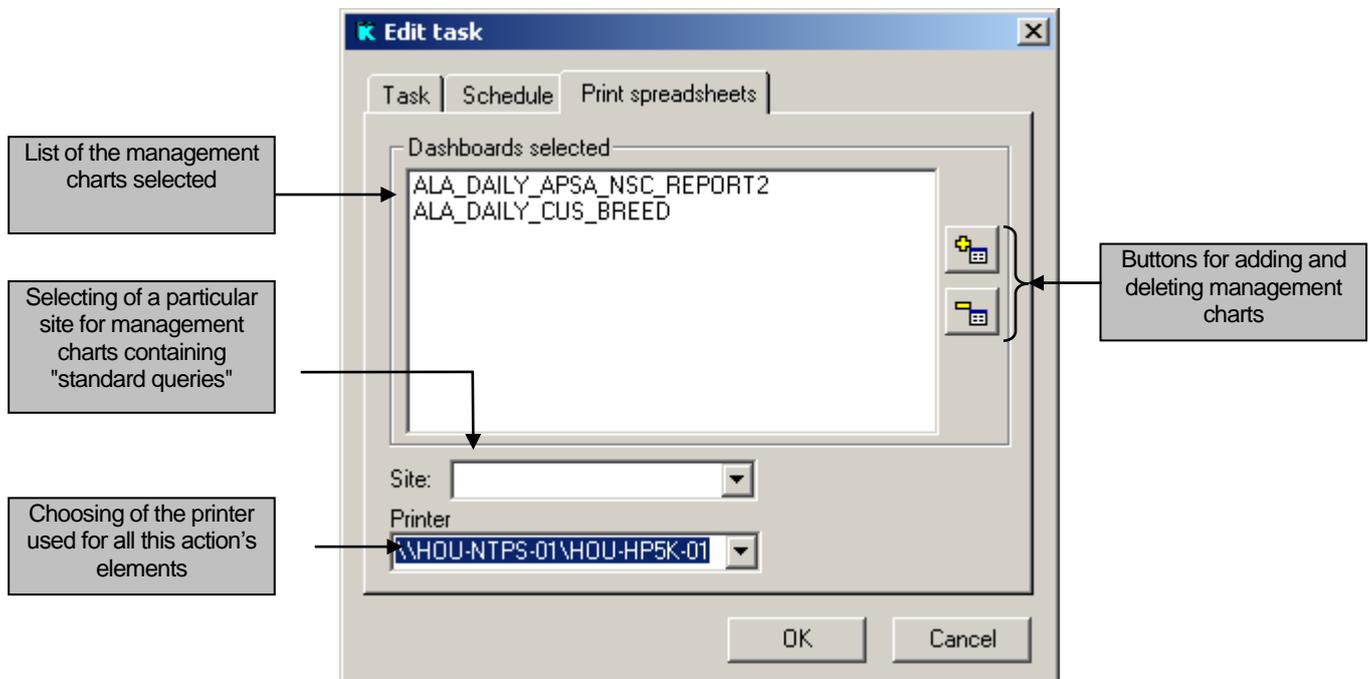
7.20.11.2 **Printing to email (PDF)**

This action allows you to periodically send by email some events listings in PDF format. To send email, select the the printer "Kerwin E-Mail" in the list, then choose a recipient.

7.20.12 **Printing spreadsheets**

7.20.12.1 **Printing to a printer**

With this action you can periodically print spreadsheet calculated at a precise date.



For spreadsheets containing “standard queries” (see section 9, “Management charts”), you can choose the site required for preliminary calculation on printing.

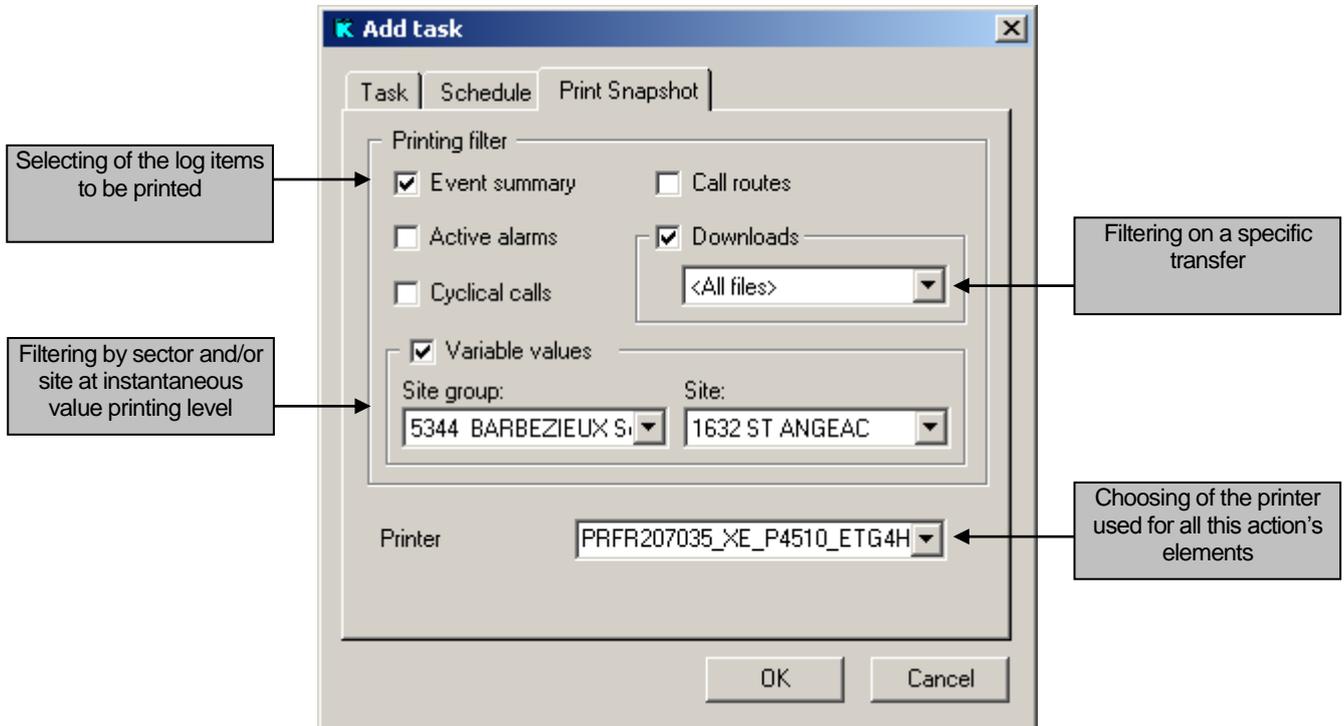
7.20.12.2 **Printing to email (PDF)**

You also have the option to print to PDF and send it to a recipient as attachments. The principle is the same as previously. You must select the printer "Kerwin E-mail" and select the recipient of the mail.

## 7.20.13 Printing the snapshot

### 7.20.13.1 Printing to a printer

KERWIN's snapshot may be printed automatically.



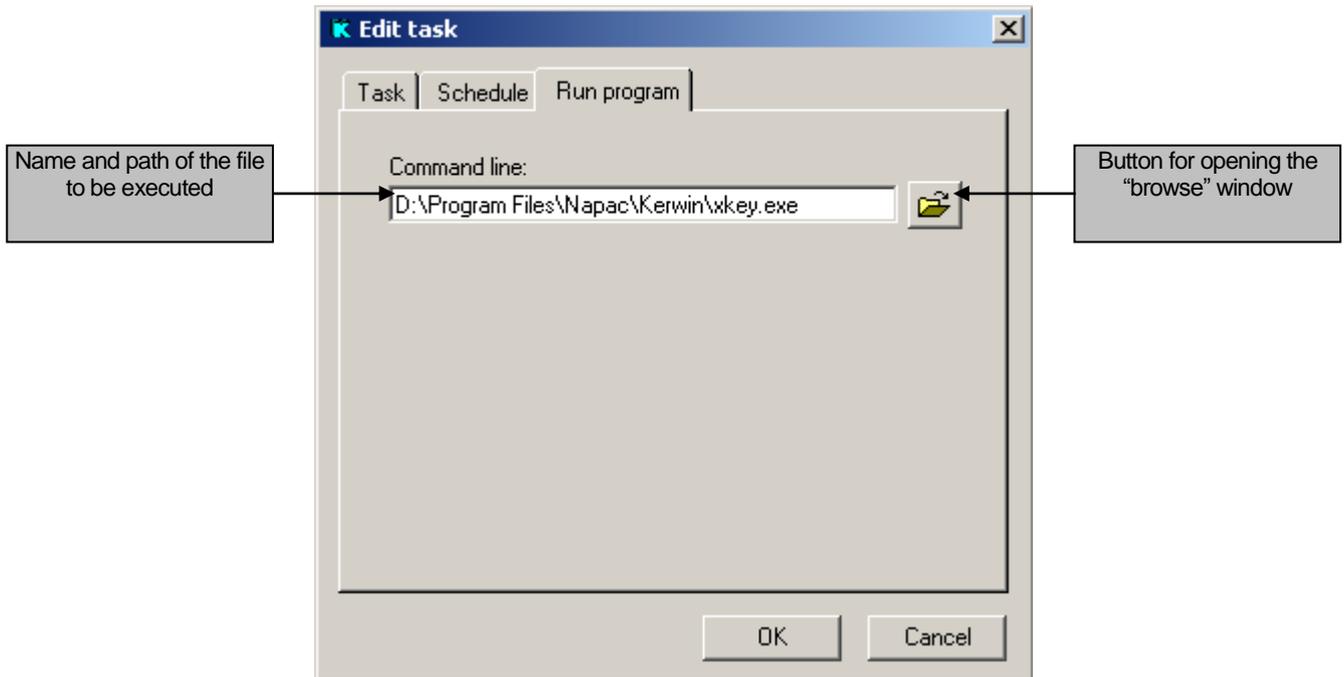
You can select the item(s) to be printed corresponding to the log's various tabs. You can also refine the selection for the "download" and "variable values" tabs.

### 7.20.13.2 Printing to email (PDF)

You also have the option to print to PDF and send it to a recipient as attachments. The principle is the same as previously. You must select the printer "Kerwin E-mail" and select the recipient of the mail.

7.20.14 Launching a programme

With this action you can periodically launch an external programme.

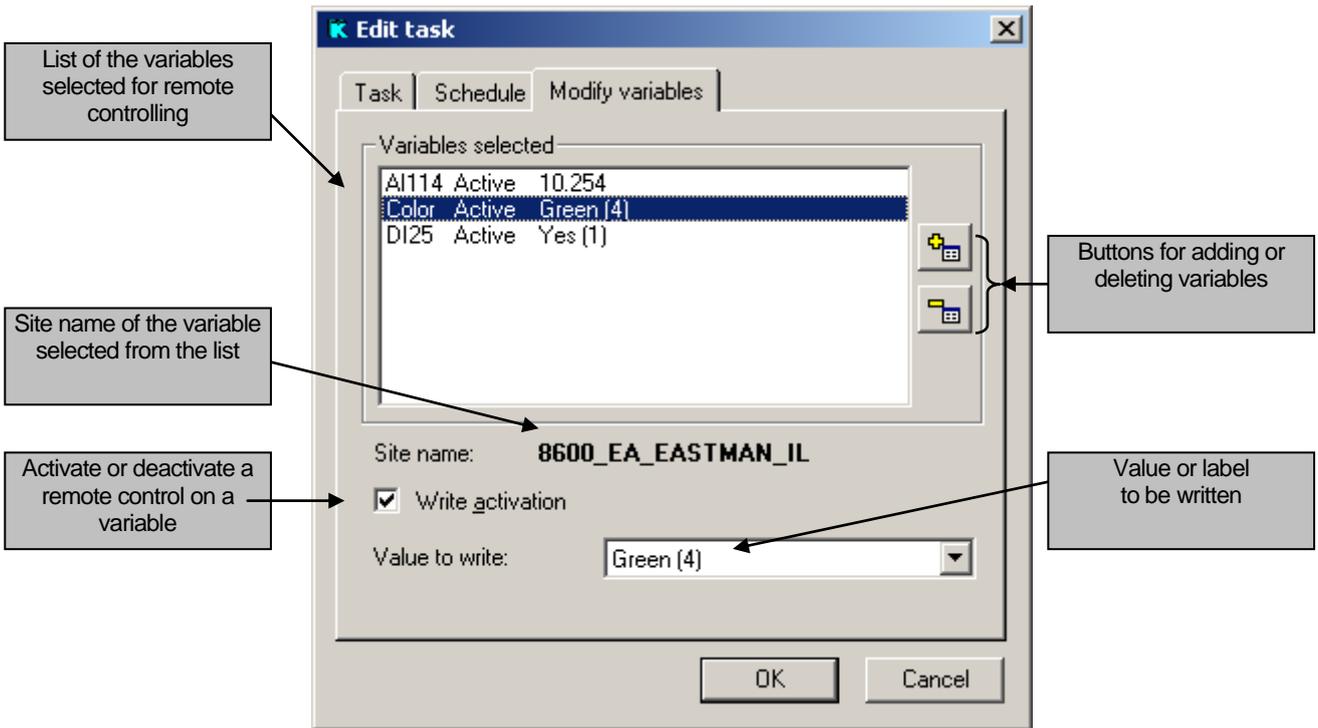


**7.20.15 Variable remote controlling**

This action is used to remotely control or remotely manage variables on local units (e.g. shutting down of heating system on all the sites).  
 You must choose the variables to be remotely controlled and then activate or not the value to be written.

A logical variable will propose states 0 and 1 if it doesn't have an associated logical label. If it does, it will propose the two states of the logical label.

An analog variable without analog label will propose an input field allowing to set manually the written value. If it has an analog label, then the states with a write value will be proposed (see [Add an analog label](#)).

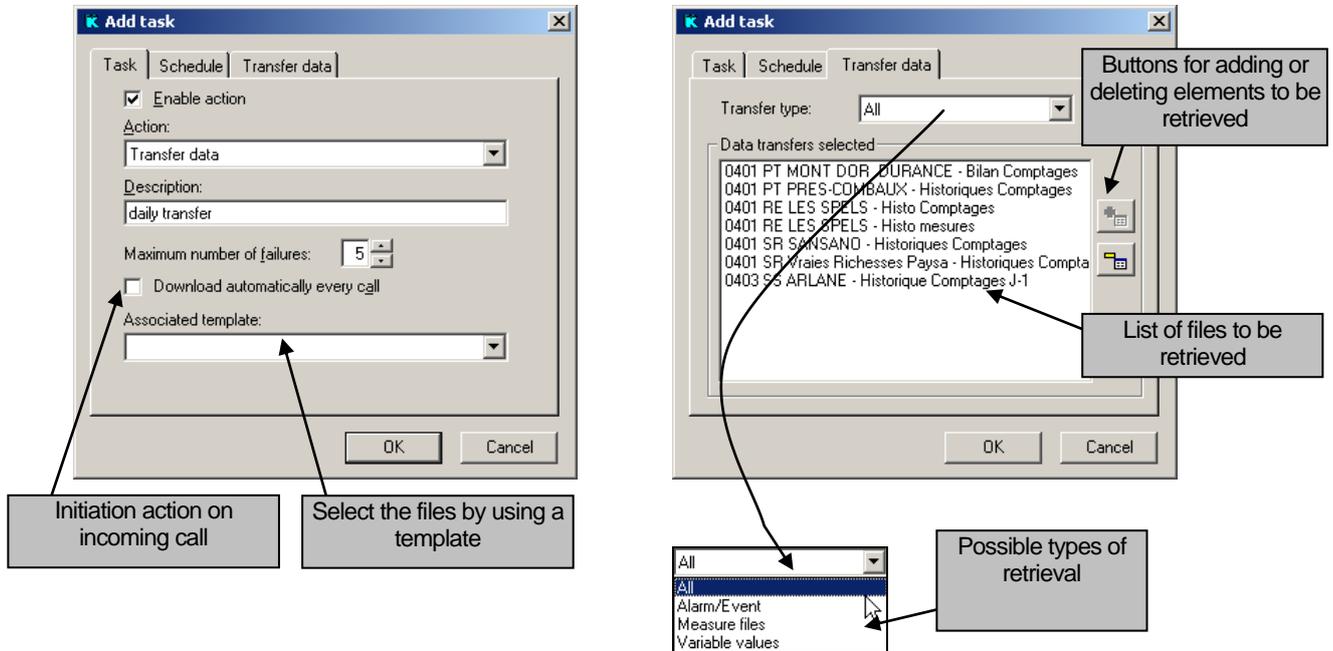


**7.20.16 Transferring data**

"Transfer data" action allows you to periodically retrieve the operating data from the local units.

There are two ways in which these two types of action are launched:

- Through the date for the launching of the action by the sequencer at a set period
- Through the receiving of an incoming call.



**7.20.16.1 Event files**

History of the events stored in the local units.

**7.20.16.2 Measurement files**

Detailed, syntesis, measure, state, historical, or report.

Time-stamped measurement files stored locally in the local units then transferred by KERWIN.

**7.20.16.3 Instantaneous values**

Last values stored.

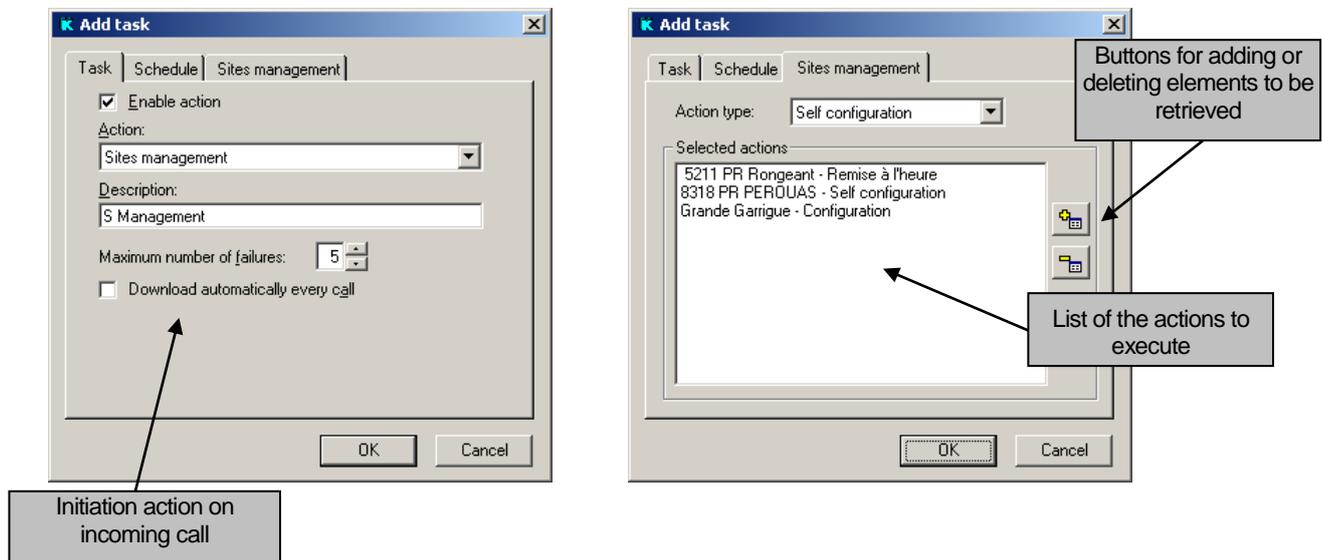
Speeds up calls as only one value is read.

### 7.20.17 Sites management

"Sites management" action allows you to periodically act on the local units.

There are two ways in which these two types of action are launched:

- Through the date for the launching of the action by the sequencer at a set period
- Through the receiving of an incoming call.



#### 7.20.17.1 Self configuration

All local units must be defined in KERWIN. This defining process includes creating all the variables used in the local unit.

These variables must be created manually if the local unit does not permit automatic configuration.

#### 7.20.17.2 Raw configuration

Reading of a local unit's configuration and store it in a file on the hard disk.

This file may be transferred onto the same local unit in the case of changes or onto another site in order to create a common basis for adaptation.

#### 7.20.17.3 Set time

This action allows synchronizing periodically the date between Kerwin and the selected local units.

#### 7.20.17.4 Unblocking call routes

This action allows unblocking periodically the call routes of the selected local units.

### 7.20.18 Cyclical Event

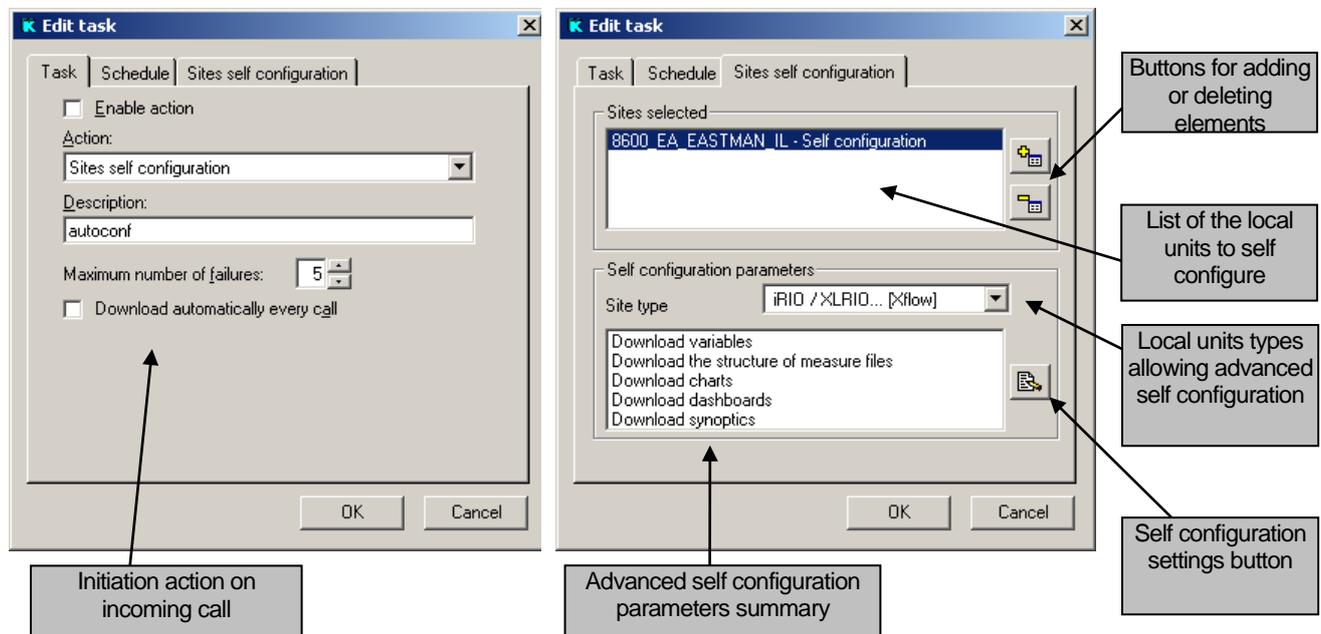
This is a somewhat special action that will periodically generate an event type of "cyclical call".

This event can be transferred to another KERWIN supervisor in order to monitor the first one.

7.20.19 **Sites self configuration**

The « Sites self configuration » action allows to periodically requesting a self configuration on local units. There are two ways in which these two types of action are launched:

- Through the date for the launching of the action by the sequencer at a set period
- Through the receiving of an incoming call.



The self configuration tab id divided in two parts:

- Selected local units
- Advanced self configuration parameters

The « Sites selected » part allows the user to add/remove local units on which the self configuration has to be performed.

The « Self configuration parameters » part allows the user to configure the advanced self configuration parameters for all the local units' types allowing it. A dropdown box displays the local units types (among the selected local units) allowing the advanced self configuration. When a type is selected, the summary field displays the currently selected actions (or the default actions if it has not been configured).



The edit button opens an advanced self configuration window allowing modifying those actions. (See: [Advanced self-configuration](#), for more information about this form).

The configuration can be different for each local unit type, but all the local units of each type in the schedule use the same self configuration parameters.

**7.21 ALERTS**

**7.21.1 Presentation**

Kerwin’s alert function consists of automatically forwarding the alarms and events received or generated by Kerwin to one or several recipients, in line with calendars.

The general operating principle consists of determining **Who to alert**, **When** and **Why**. This logic must be complied with when configuring the alert module in Kerwin.

**Who to Alert** is defined in the “call routes and Procedure” forms.

**When** to alert is defined in the daily, weekly and calendar schedules forms.

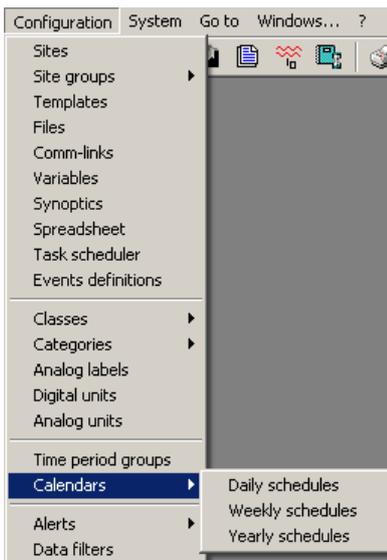
**Why** is defined in the call programme form, which will also create the link with **Who to alert** and **When**.

*Finally, note that great care must be taken during the configuration phase, as any errors or omissions may result in the deferring or non-transmission of critical alarms. The use of Kerwin’s alarm simulation functions (cf. variable forms) is therefore recommended for the validating of alerts configurations.*

**7.21.2 Methodology**

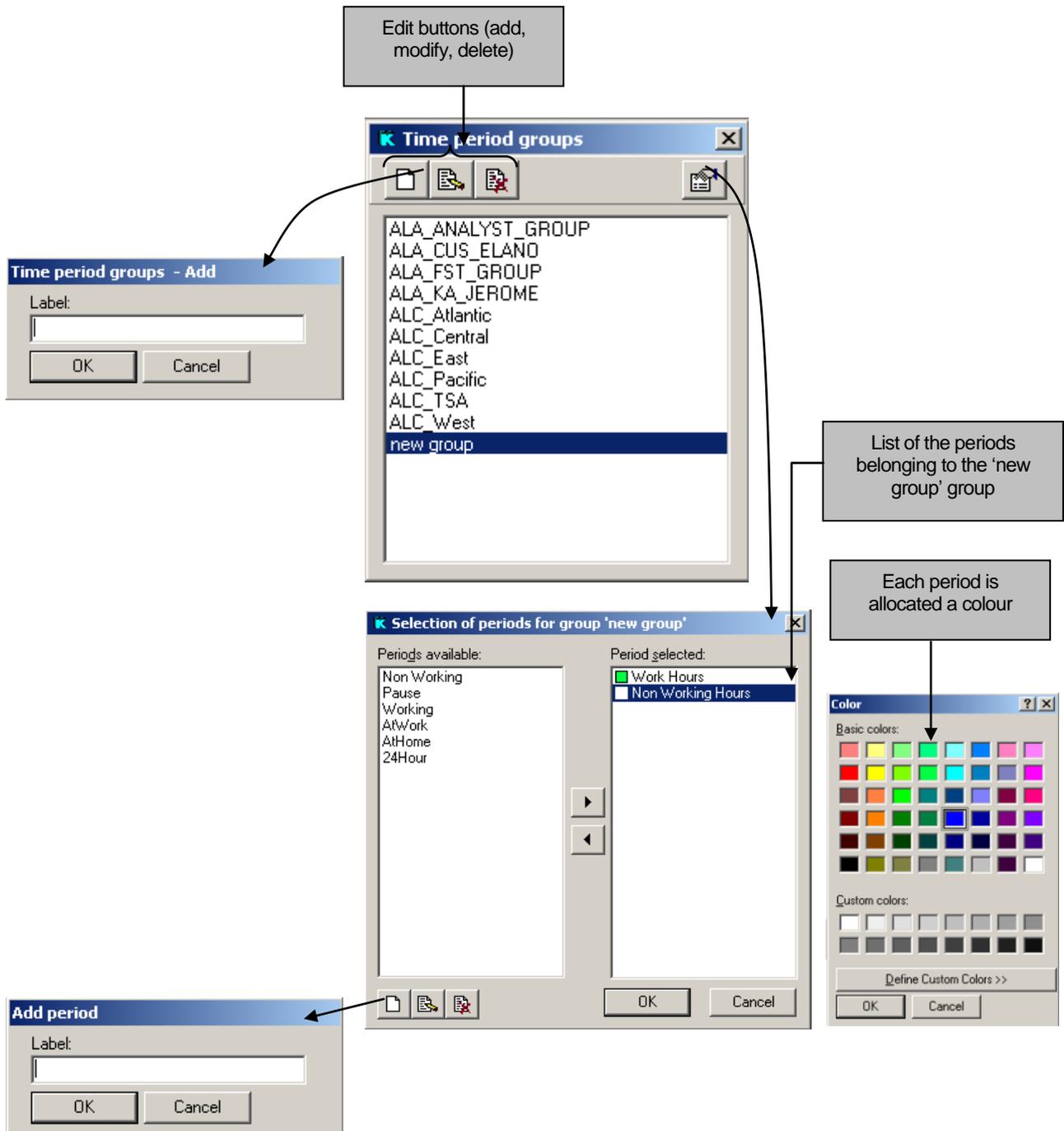
The alerts configuration process may be summarised in 8 stages:

Stage	Form	Function
1	Period groups	Defining of the time periods and time period groups used for time programmes and alert functions
2	Daily schedules	Defining of standard days
3	Weekly schedules	Defining of standard weeks
4	Yearly schedules	Defining of yearly and multiple year calendars
5	Call directions	Defining of recipients to be alerted and on what type of medium (fax, email, etc)
6	Call procedures	Grouping of recipients into teams with backup management
7	Call programmes	Association between the periods defined through a yearly programme and the call procedures to be activated
8	Call programmes	Routing of the events and alarms received or generated by Kerwin to a call procedure according to the time of day



### 7.21.3 Time period groups

This form is accessed from the Configuration / Time Period group menu. It is used to define periods and group them for use defining call programmes.



7.21.4 Daily schedules

This form is accessed from the Configuration/ Calendar / Daily schedules. It is used to define standard days, based on periods previously defined, to use them in weekly and yearly schedules. Daily pschedules, like the other types of programme, are defined within the context of a time period group. A colour is also associated with the daily schedule, to allow visual identifying of the yearly schedules within the form.

Edit buttons  
(add, delete, save, cancel)

It is the area for editing periods in the day. Editing takes place according to a 10 minute scale

Zone for viewing the periods defined for the day

7.21.5 Weekly schedules

This form is accessed via the Configuration / Calendar / Weekly schedules menu. It is used to define standard weeks, based on daily schedules previously defined, to use them in yearly scedule. A weekly schedule is defined within the context of a time period group.

Edit buttons (add, save, delete, cancel)

Weekly schedules

Time period group: ALA\_ANALYST\_GROUP

Weekly schedules: ALA\_ANALYST\_WEEK

Description: ALA\_ANALYST\_WEEK

Days available: ALA\_ANALYST WEEKDA  
ALA\_ANALYST WEEKEN

Time periods:  
 Work Hours  
 Non Working Hours

Default daily schedule:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Alarm : ALA_ANALYST WEEKDAY																							

Week by day:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Monday : ALA_ANALYST WEEKDAY																							
Tuesday : ALA_ANALYST WEEKDAY																							
Wednesday : ALA_ANALYST WEEKDAY																							
Thursday : ALA_ANALYST WEEKDAY																							
Friday : ALA_ANALYST WEEKDAY																							
Saturday : ALA_ANALYST WEEKEND																							
Sunday : ALA_ANALYST WEEKEND																							

The days of the week and the day can be configured by default through dragging and dropping from the list of days defined to the day of the week to be defined.

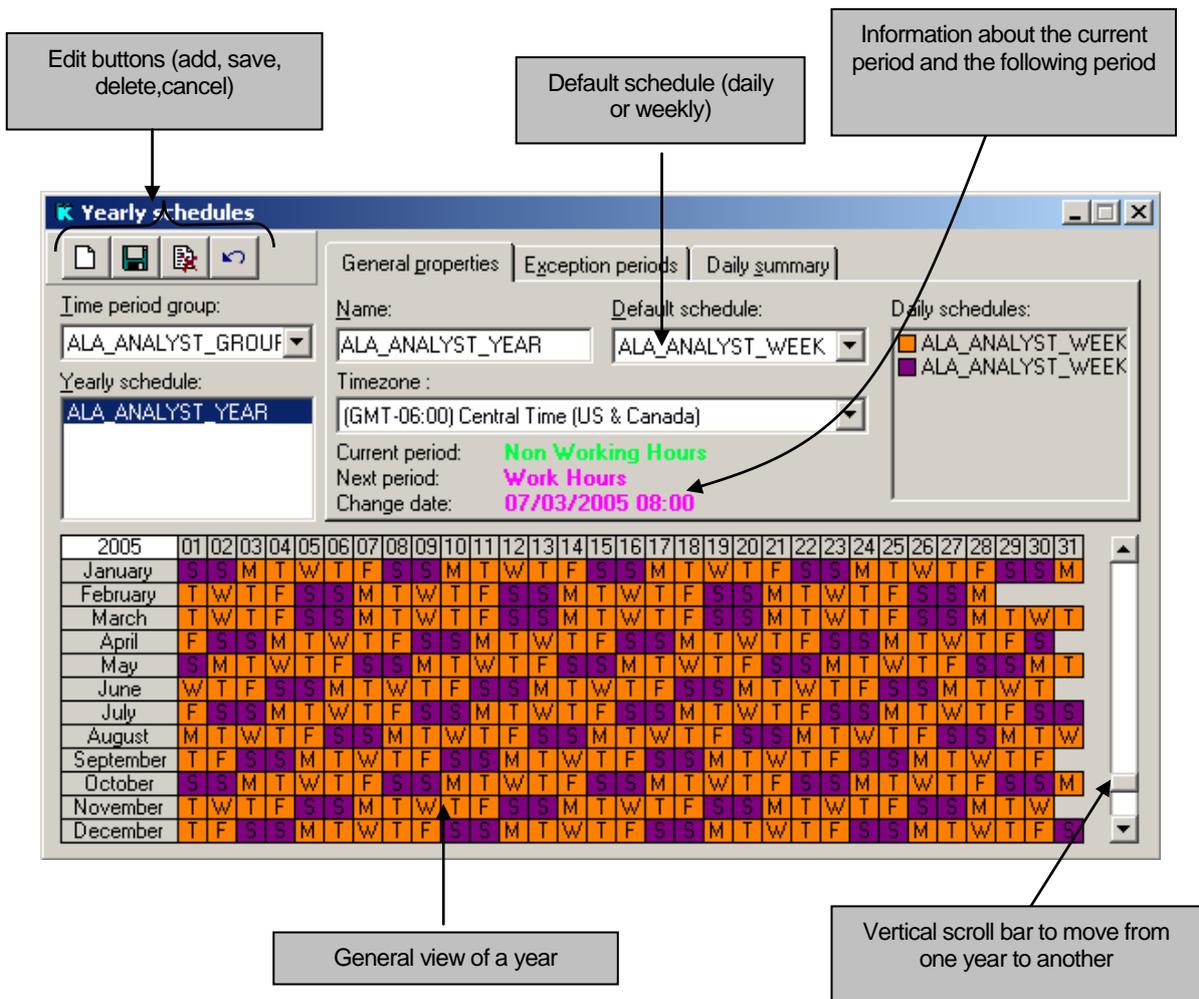
7.21.6 Yearly Schedules

This form is accessed from the Configuration / Calendar/ Yearly schedules menu. It is used to define as many yearly programmes as necessary. A yearly schedule is defined through a default schedule (weekly or daily), and through exception periods, within the context of a given period group. Note that a yearly scedule may be associated with a time zone.

Three tabs can be used to:

- Define the schedule’s general properties
- Define the exception periods
- View the details for a given day

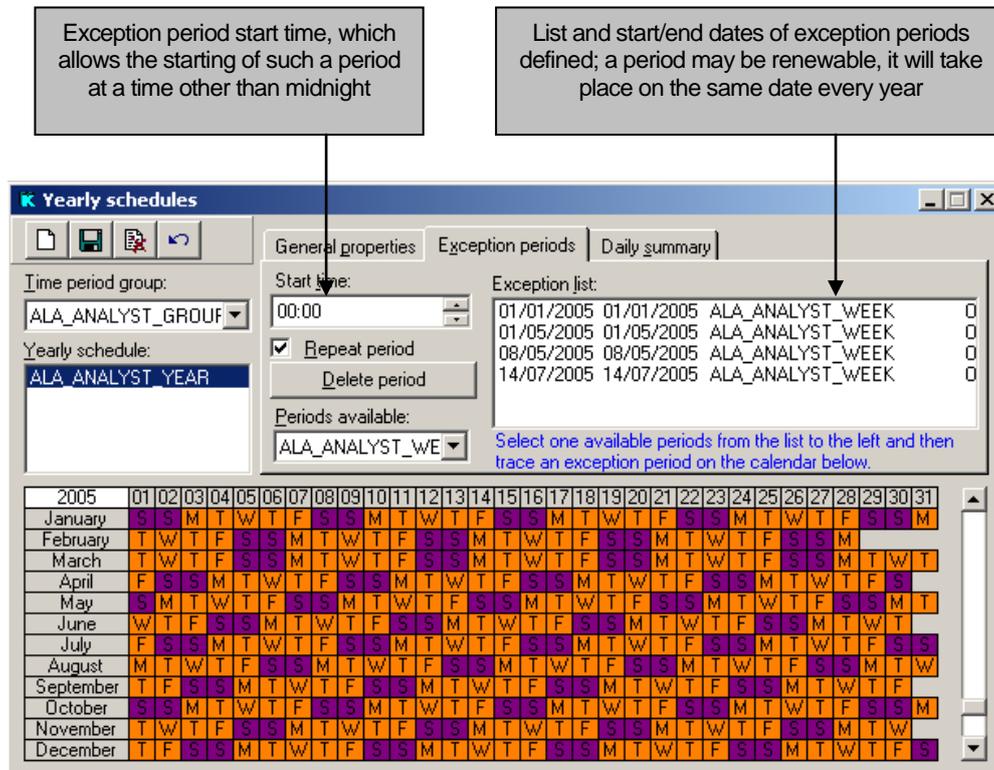
7.21.6.1 General properties



7.21.6.2 Exception periods

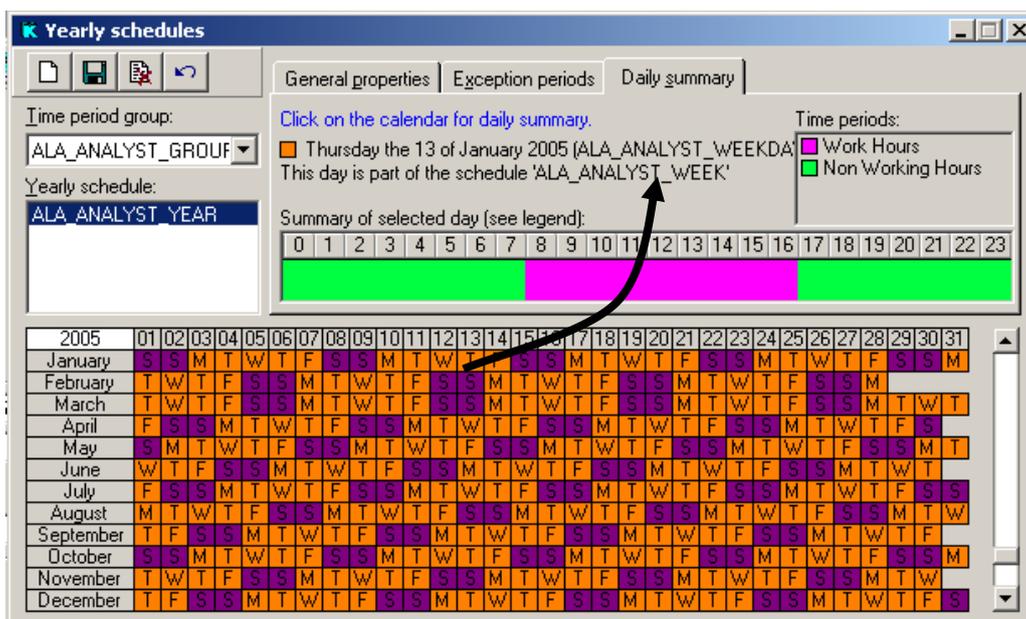
Exception periods are added by selecting a programme (daily or weekly) from the 'available programmes' list then selecting a period in the calendar's general view.

They are deleted by selecting an exception period from the list, then clicking on the 'Delete period' button.



7.21.6.3 Distribution of days

The distribution of days tab is used to quickly view all the periods defined for a given day, by clicking on the day in question in the calendar's general view.



7.21.7 Call routes

The call routes are configured from the Parametering / alerts / Call routes menu. Some principles governing configuration:

- A call route is ALWAYS attached to a KERWIN user: all the actions relating to the call route (acknowledgement, deactivation) take place with a view to the security of the attached user.
- An important parameter of a scall route is the 'Protocol'; this parameter determines the way in which KERWIN will transmit information to the recipient; the configuration of a call route differs according to the medium used
- An incorrect configuration may lead to repeated, costly calls; particular care must therefore be taken when configuring call routes.
- If an action is expected from the recipient following the transmission of alarms, an acknowledgement request ('Max acknow attempts' and 'Time before acknow' greater than zero) MUST ALWAYS be configured and a backup should be defined at the level of the procedures in which the recipient appears.

The screenshot shows the 'Call routes' configuration window. It includes a list of call routes on the left, with '51 B Bureau Fleury' selected. The main configuration area contains the following fields and controls:

- Name:** 51 B Bureau Fleury
- Linked to:** Astreinte
- Protocol:** Email
- Email:** SVARR@SR.FR
- Email file:** D:\WEREMI32\EMAIL50.TXT
- Object:** (empty)
- Max calling attempts:** 1
- Acknowledgement delay (min):** 10
- Max ack. attempts:** 1
- Force alarms transmission:** (checkbox, unchecked)
- Max number of transmitted events per call:** All
- Retry delay after transmission failure (min):** 3
- Restrict call route to:**
  - No restriction
  - Alarms only
  - Active alarms only
- Status:** Active

Callouts and annotations:

- Edit buttons (add, save, delete, cancel):** Points to the toolbar icons.
- Revalidation of a standby call route, which immediately becomes callable:** Points to the refresh button in the toolbar.
- User attached to the call route:** Points to the 'Name' field.
- Call route protocol:** Points to the 'Protocol' dropdown.
- Number of call attempts, times and option:** A large box containing a list of parameters:
  - Before acknow: time given to the user to acknowledge alarms, within the limit of 'Max ack. attempts'
  - Max calling attempts: number of failed call attempts before declaring the route faulty; in this case, the route will no longer be callable for the value of the deferment time
  - Forced alarm transmission: if this option is chosen, the alarms will be transmitted even if the call route has waiting for acknowledgement status
- Used to limit the number of alarms transmitted in one call:** Points to the 'Max calling attempts' and 'Max ack. attempts' spinners.
- Used to ensure only certain events are sent to a direction:** Points to the 'Restrict call route to' radio buttons.

### 7.21.7.1 Details of the parameters common to all protocols

#### 7.21.7.1.1 *Max calling attempts*

This is the maximum number of successive call failures authorised by KERWIN. If this number is reached, KERWIN triggers a fault on the direction concerned and prohibits calls to the latter for a time corresponding to the 'Retry delay after transmission failure' parameter. According to the call procedure used, the first backup defined and available is then activated.

#### 7.21.7.1.2 *Max ack attempts*

This is the time that KERWIN will allow the recipient of an alert to acknowledge an alarm or group of alarms. If, at the end of this time, one of the alarms concerned has not been acknowledged, KERWIN relaunches a call within the limits of the 'Max ack attempts' parameter. When this maximum number of calls without acknowledgement has been reached, KERWIN declares the direction to be faulty, makes it unavailable for a time corresponding to the 'Retry delay after transmission failure' parameter, and eventually moves on to a backup direction according to the call procedure used.

If this parameter is equal to zero, KERWIN automatically acknowledges the alarms that it successfully transmits.

**NB: IT IS VITAL TO GIVE A POSITIVE AND REASONABLE VALUE TO THIS PARAMETER IF CRITICAL ALARMS NEED TO BE TRANSMITTED**

#### 7.21.7.1.3 *Max number of transmitted events per call*

This parameter is used to limit the number of alarms transmitted per call. It is useful if you want to send one SMS per alarm, for example.

#### 7.21.7.1.4 *Restrict call route*

With this parameter you can choose to transmit only faults, or current faults, to a recipient. Although it is redundant with the criteria defined at call programme level, its use may allow considerable simplification of the alert configuration process.

The various types of alert protocol supported by KERWIN are the following:

Medium	Type	Comment	Sending	Acknow <sup>1</sup>
Alpha, Alpha 40, 80	Pager	Alphapage first generation short message	Videotex	
Espresso, Espresso 40, 80	Pager	Espresso first generation short message	Videotex	
Operator, Operator 40, 80	Pager	Operator first generation short message	Videotex	
Kobby, Digital Kobby	Pager	Kobby first generation short message	Videotex	
Tatoo	Pager	Tatoo first generation short message	Videotex	
TAP	Pager	Short message in TAP protocol	TAP server	
SMS SFR, Itineris, Bouygues GMS	Pager	Short message sent via Videotex server	Videotex	
SMS GSM	Pager	Short message sent via GSM modem	GSM modem	✓
Orange gateway SMS	Pager	Short message sent via the ORANGE gateway (option, requires a specific architecture, contact Schneider Electric Telecontrol)	IP	✓
Netsize	Pager	Short message sent with netsize	IP	✓
Minitel	Minitel	Sending over Minitel	PSTN	✓
MC10	Telecontrol	Transmitting of alarms between Telecontrol alarm receivers (MC10, MC5, KERWIN)	PSTN, IP	
Napbus	Telecontrol	Transmitting of alarms between Kerwin	PSTN, IP	
Email	Email	Email	SMTP	✓
Fax	Fax	Fax	PSTN	
Modbus relay	Relay	Controlling of a serial Modbus peripheral	Local serial link	

<sup>1</sup> This is the acknowledgement by return function, or during the session for voice and Minitel; this function is available for SMSs sent via GSM modem and emails: in this case, the user can acknowledge the alarm(s) by returning the SMS or email to KERWIN as it was received. In the case of voice, the user can acknowledge alarm by alarm using his telephone keypad. In the case of a Minitel session, the recipient can acknowledge his alarms through Videotex pages.

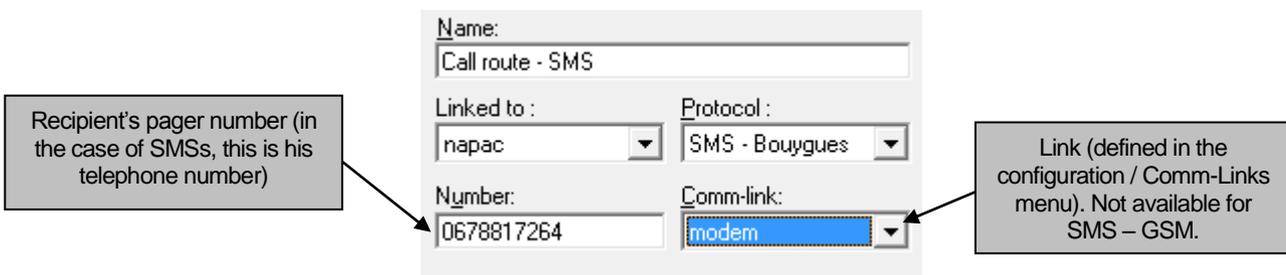
**7.21.7.2 Pager**

In all cases, the events and alarms are transmitted in the form of a short message using a wireless technology. KERWIN manages the oldest and latest types of short message. In view of the technologies used, a single alarm can usually be displayed by the receiver (except for SMSs); if more than one event is to be transmitted per direction, the recipient may not see all of the alarms of which he is the recipient: in this case, the message transmitted finishes with ‘...’, and it is vital that the recipient connects to the KERWIN station (for example, via KERWEB) to view his alarms.

NB: for media using a Videotex server, the sending costs may be very high (3615 or 3617)

The sending of short messages via TAP requires the presence of a TAP server in the application’s user area. This requirement is usually met as the TAP protocol is a world standard.

The parameters to be configured in the case of a pager type cal route are the following:



For media transmitted via Videotex server, the servers' telephone numbers are directly allocated by Kerwin. These are the following:

Medium	Telephone
Alphapage	0836091515
Alpha 40	0836094040
Alpha 80	0836098080
Expresso, Expresso 40, 80	0836095050
Operator	0836090940
Operator 40	0836090940
Operator 80	0836090980
Kobby, Kobby digital	0836097070
Tatoo	3615
SFR SMS	3617
Itineris SMS	3617
Bouygues SMS	3615

In the case of TAP, as well as the recipient's pager number, it is necessary to configure the telephone number of the TAP server, and possibly a password; for links allocated to a TAP type direction, attention must be paid to the parity, which may vary between servers (7 or 8 bits of parity):

The diagram shows a configuration form with the following fields and values:

- Name: call route 1
- User: Napac
- Protocol: T.A.P.
- Phone: 01 44 25 20 40
- Comm-link: modem com3
- Number: 0607080910
- Password: [masked]

External boxes with arrows indicate the source of the data:

- Telephone number of the TAP server points to the Phone field.
- Recipient's pager number points to the Number field.
- TAP server password points to the Password field.

In any case, the default format of the messages sent is the following:

- Telephone number of the remote management unit that transmitted the alarm to KERWIN, 10 characters max
- Name of this unit, defined in KERWIN (site form), 25 characters max
- Name of the variable at the origin of the alarm, 16 characters max
- Nature of the alarm, 8 characters max
- Appearance date, 19 characters max
- Value of the variable when the alarm was detected, 10 characters max

This default format may be modified in the data server's configuration file (kerwin32.cfg, [pager] section), but in this case, the format defined is common to all the pager type media. The syntax is the same as that used for event listing: cf. [Data server start-up configuration](#) section.

Several alarms may be transmitted per call, but KERWIN will truncate the messages within the limit of the receiving devices' capacities; in this case, the message ends with three small dots ('...') and the recipient must connect to KERWIN (via KERWEB, for example) to view all the alarms that caused the call.

Of all the 'pager' type media, only the sending of SMSs via GSM modem allows you to acknowledge alarms via return of SMS. For this type of medium, the modem must be equipped with an SIM card with an ad-hoc

subscription. In this case, a backup SIM card must be provided for, as these cards can only send and receive some tens of thousands of SMSs.

### 7.21.7.3 Minitel

To configure this type of medium, the following parameters must be entered:

The screenshot shows a configuration window with the following fields and values:

- Name: call route 1
- User: Napac (dropdown)
- Protocol: Minitel (dropdown)
- Phone: 01 44 25 20 40
- Comm-link: modem com3 (dropdown)

Callouts indicate:

- The Phone field is labeled "Recipient pager number (his phone number if SMS)".
- The Comm-link field is labeled "Link (defined in the Configuration / Comm-Links menu)".

The alarm transfer session takes place as follows: KERWIN dials a telephone number and waits until the recipient has connected with a Minitel; once the connection has been established in Videotex mode, KERWIN waits for the user attached to the direction to connect with his login and password. In this case, the session is considered to be successful, and if the time before acknowledgement is equal to zero, the alarms are automatically acknowledged; otherwise, the user must acknowledge them explicitly, profiting, for example, from the Videotex session opened.

### 7.21.7.4 MC10

This type of support allows sending alarms from a supervisor KERWIN to others (MC10, MC5, KERWIN). In this case, the parameters to fill in are the same as before.

### 7.21.7.5 Napbus

This type of protocol is used to send alarms from one Kerwin receiver to another one. In this case, the parameters that need to be entered are the same as previously.

### 7.21.7.6 Email

An email type call route allows the transmitting of alarms via email. The sending of emails via KERWIN uses the SMTP protocol and therefore requires a server managing this protocol accessible in the network environment in which the KERWIN machine is installed. The SMTP server's parameters are defined in the communication core's configuration file (cf. [Communication core start-up configuration](#) section).

This type of medium also allows **acknowledgement through return of email**. In this case, as with SMSs, it is **ESSENTIAL to return the email as it was transmitted by KERWIN**, the latter having coded in the message transmitted the information necessary for acknowledging the event concerned. In addition, KERWIN reads the return messages in accordance with the POP3 protocol: the latter requires a POP3 server accessible by KERWIN and in which an account dedicated to the KERWIN application has been created. The parameters of this account are defined in the communication core configuration file (cf. [Communication core start-up configuration](#) section).

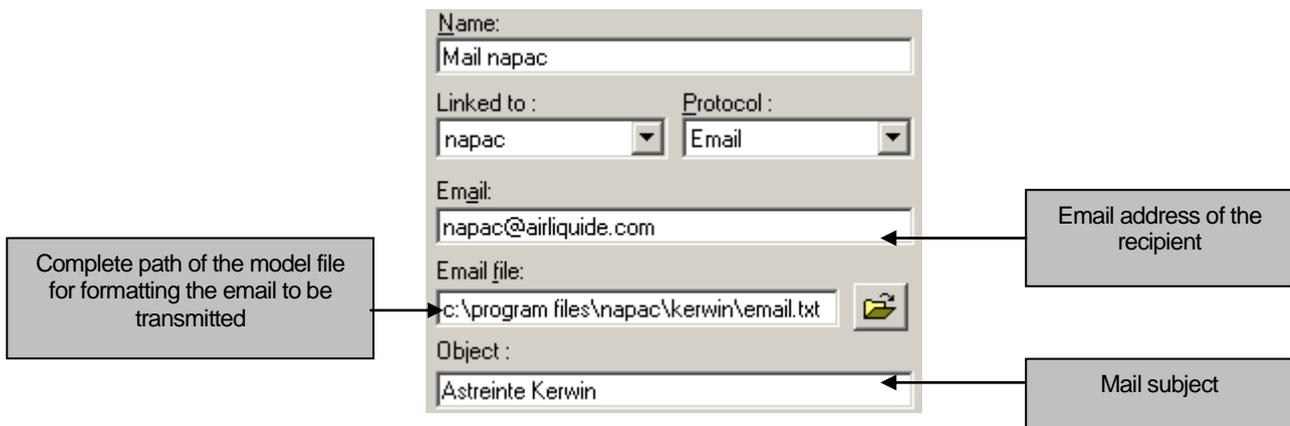
**NB: Emails may be transmitted randomly; if this type of protocol is used to transmit critical alarms, it is VITAL to configure acknowledgement times.**

The email transmitted does not contain attached documents, but its content is fully configurable, using a 'model' file in text format. **Emails may also be transmitted in non-Latin languages** (such as **Japanese**); in this case, the model file **MUST BE** saved in **unicode** format.

The mail subject is configurable. It could be filled with a simple string or with one or some application tags (see fax part below).

**For example** : <Kflistingevenement 3|0, 2|0>

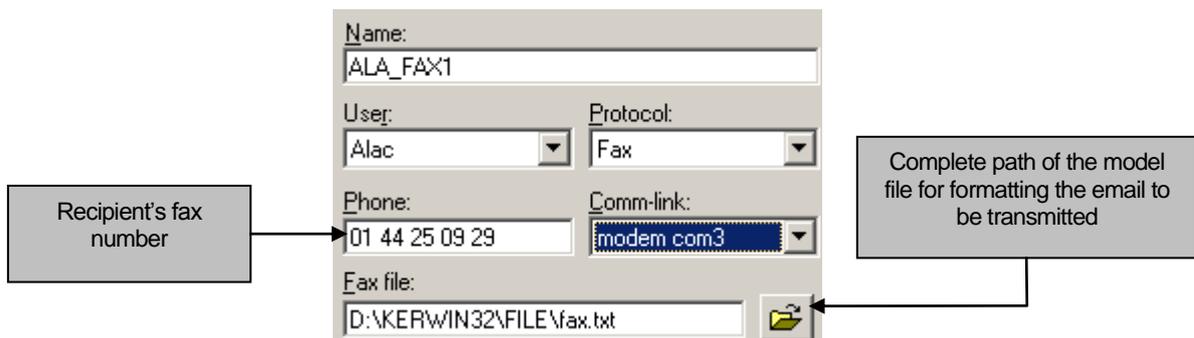
The parameters to be configured are the following:



**7.21.7.7 Fax**

The sending of alarms by fax, as by email, uses a configuration file defining the content and appearance of the fax transmitted. This file is to be saved in Unicode for the management of non-Latin languages. Fax compatible modems are also required.

The parameters to be configured are the following:



### 7.21.7.8 Syntax of the configuration file for alert by email and fax

Alarm transmission via email and fax share a common property: a configuration file, which allows the customizing of the information transmitted, with regard to both the presentation of the alarms and events transmitted, and the adding of other information (presentation, originator, recipient, etc).

This configuration file is presented in the form of a text file, which may be edited, for example using Windows' notepad, and contains:

- Free text, which will be transmitted as is
- Application tags defining the KERWIN information to be transmitted
- Formatting tags, for the sending of faxes only

You are strongly advised to save this file in Unicode format, which allows the sending of free text in non-Latin characters.

#### Tags

These are presented in the form <tag [attribute\_i="attrib\_i"]>, where tag is the name of the tag, and attribute\_i is an optional list of attributes.

#### Application tag syntax

- <KFdestinataire>, used to insert the name of the call route called
- <KFmaintenant>, represents the current date
- <KFemetteur>, this is the name of the KERWIN master station (configurable in the Maintenance /System/Options menu, "General" tab)
- <KFtelephone>, telephone number called
- <KFlistingevenement [format]>, is used to insert the events at the origin of the call. The information [format] is optional and allows the customising of the event description items. By default, the items edited on the fax are: Acquisition date, Site name, Name of variable, Nature and value of variable. [format] is in the form: i1/l1, i2/l2, ... where i represents an item number and l is the display length in numbers of characters

The various items available are described in the section [Data server start-up configuration, Displaying information on-the-fly](#)

#### Presentation tag syntax (faxes only)

The presentation tags are the following:

- <BODY>

The <BODY> tag can only appear once per page and only in the first line. It is used to define the general properties of a fax page.

Its attributes are:

- **BACKGROUND**: defines the fax page's background; value: the name of a bitmap image (MUST BE monochrome) that will be pasted onto the page in position (0, 0).
- **ORIENTATION**: indicates the orientation (portrait or landscape) of the fax page; Value: **PORTRAIT** or **LANDSCAPE**
- **BOTTOM**: indicates the lower limit of the fax page. If this limit is exceeded a page break is automatically inserted; value: depends on the orientation; less than 2272 for **PORTRAIT** and less than 1728 for **LANDSCAPE**
- **TOP**: indicates the upper limit of the text in the fax page; value: less than 2272 for **PORTRAIT** and less than 1728 for **LANDSCAPE**

#### **Example**

```
<BODY BACKGROUND="C:\BGFAX.BMP" ORIENTATION="PORTRAIT" BOTTOM="2100" TOP="250">
```

- **<FONT>**

The **<FONT>** tag is used to modify the character font of the text that follows it.

Its attributes are:

- **NAME**: specifies the name of the font
- **SIZE**: specifies the size of the characters
- **BOLD, ITALIC, UNDERLINE**: used to enhance the text, with bold, italic and underline respectively; the possible values are **TRUE** and **FALSE**.
- **ROTATION**: defines the text's orientation, in 10<sup>ths</sup> of degrees, for example **ROTATION="450"** for text inclined at 45°

**Example**

```
<FONT NAME="ARIAL" SIZE="18" BOLD="TRUE">
```

- **<POS>**

The **<POS>** tag is used to position the text that follows it.

Its attributes are:

- **TOP**: in pixels, moving in relation to the upper edge of the sheet
- **LEFT**: in pixels, moving in relation to the left edge of the sheet

**Example**

```
<FONT LEFT="82" TOP="260">
```

- **<EOP>**

The **<EOP>** tag inserts a page break. The text that follows it will be placed on the next page. Following an **<EOP>**, a new page may be immediately defined using the **<BODY>** tag.

- **<IMG>**

The **<IMG>** tag inserts an image in a current page.

Its attributes are:

- **SRC**: path of an image in bitmap format (MUST BE monochrome).
- **LEFT, TOP**: position the image in the fax page (in pixels). If these parameters are not used the image will be placed after the text and will be left margined.
- **WIDTH, HEIGHT**: used to define the size of the image in the fax page. If these parameters are omitted, the image will keep its original size. These parameters may be used to increase or reduce the size of an image.

**Example**

```
<IMG SRC="C:\KERWINFAX.BMP" LEFT="2" TOP="120">
```

- **<RECTANGLE>**

The **< RECTANGLE >** tag is used to draw a frame on a page.

Its attributes are:

- **LEFT, TOP, RIGHT, BOTTOM**: triangle coordinates

**Example**

```
<RECTANGLE LEFT="480" TOP="293" RIGHT="1629" BOTTOM="355">
```

### 7.21.7.9 Modbus relay

This medium allows the transmitting of writing orders in Modbus protocol, via a serial link, to a compatible peripheral. This makes it possible to activate various units on the appearance or disappearance of alarms.

The parameters to be configured are the following in call route form:

The image shows a configuration form for a Modbus relay. The form fields are as follows:

- Name:** Klaxon
- User:** Napac
- Protocol:** Relay
- Numeric address:** 1;3;23
- Comm-link:** network
- Value:** 0;1

Annotations:

- A box on the left labeled "Modbus properties to be written in the target peripheral" has an arrow pointing to the "Numeric address" field.
- A box on the right labeled "Values to be written in the peripheral" has an arrow pointing to the "Value" field.

Syntax of the Address and Value fields:

- Address: `PORT; SLAVE; ADDRESS`
- Value: `VAL [ ; VALACQ ]`

The operating basis is as follows: on the calling of a call route, the value `VAL` is sent via the Modbus 16 function on the communication port `PORT` to the slave `SLAVE`, address `ADDRESS`. When there are no more alarms waiting for acknowledgement for this direction, if the optional parameter `VALACQ` has been configured, it is then sent to the same peripheral.

### 7.21.8 Call procedures

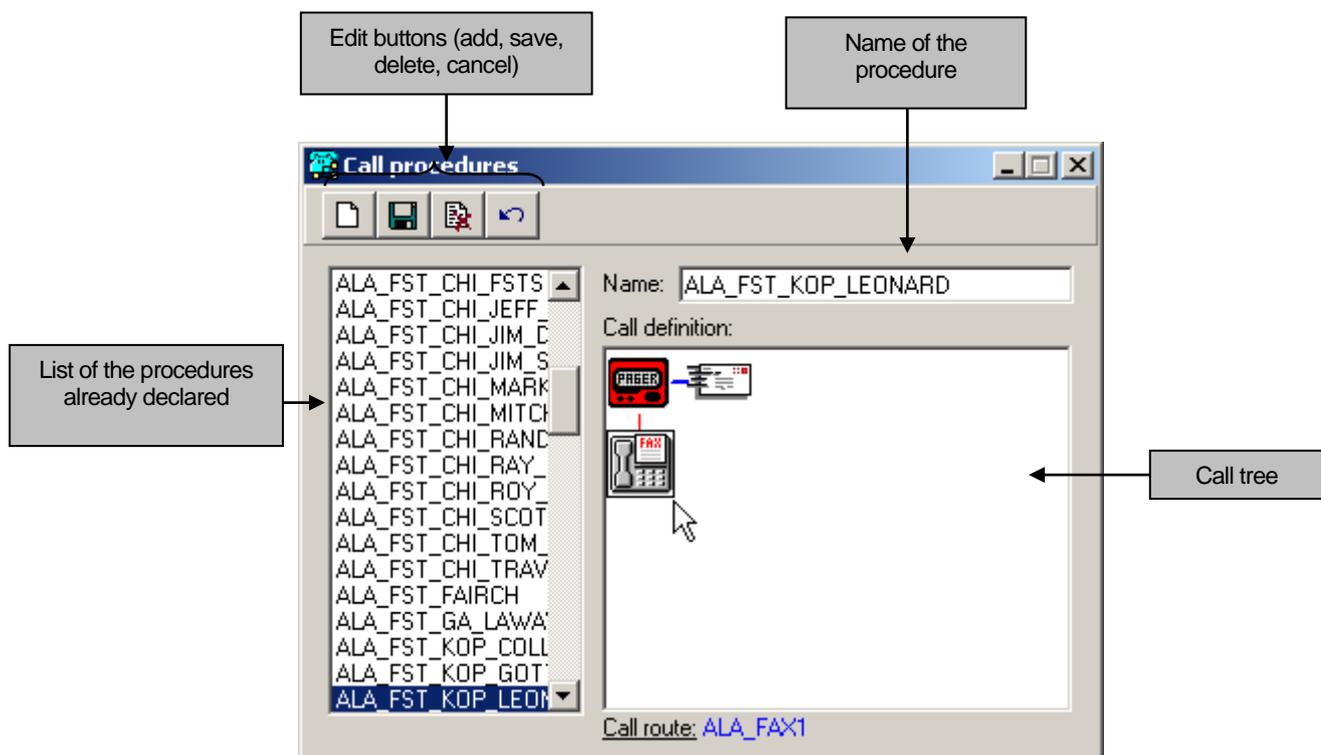
Call procedure are configured via the Configuration / Alerts / Call Procedures menu.

This form is used to define the various groups of recipients concerned by the same alarms and events. These groups are then used at call programme level to associate the events, procedures and time of day (time programme).

KERWIN's call procedures can be used to group the call routes previously defined together, either to make single calls with backup recipients, or to make multiple calls, in other words calls where several recipients are alerted simultaneously.

Complex call trees can be created, with the limitation **that a given call route can only appear once in a procedure**.

The call tree is represented graphically, the vertical red lines indicating a backup, the horizontal blue lines indicating a multiple call.



In addition to the call tree (or call direction tree), a call procedure is characterised is by its name; configuration takes place simply by dragging and dropping between the call route form and the procedure form.

Call procedures are created as follows:

- Press the "create" button and give a name to the procedure
- Select a call route from the list in the call route form and drag it to the call tree location; this direction will be the first recipient to be called for the newly created procedure
- The recipient will appear in the frame with a symbol representing the medium that has been assigned to him; the name of this recipient is also indicated opposite the *call route* field at the bottom of the frame

If the procedure contains other recipients (multiple or backup):

- They must be dragged from the call route form and linked together once they are inside the frame;
- To link two recipients, select the first recipient and right-click; the following menu will be displayed:



- Choose 'Next call route' if it is a multiple call (this means that the first and second call route must be called)
- Choose 'backup call route' if the second direction is backing up the first
- A 4-branch cross will appear on the 1st recipient
- Click on the left mouse button; the cursor will then turn into a grey frame: move it onto the second recipient and release the mouse button; a line will then appear between the two recipients (horizontal blue line for multiple distribution and vertical red line for backup)

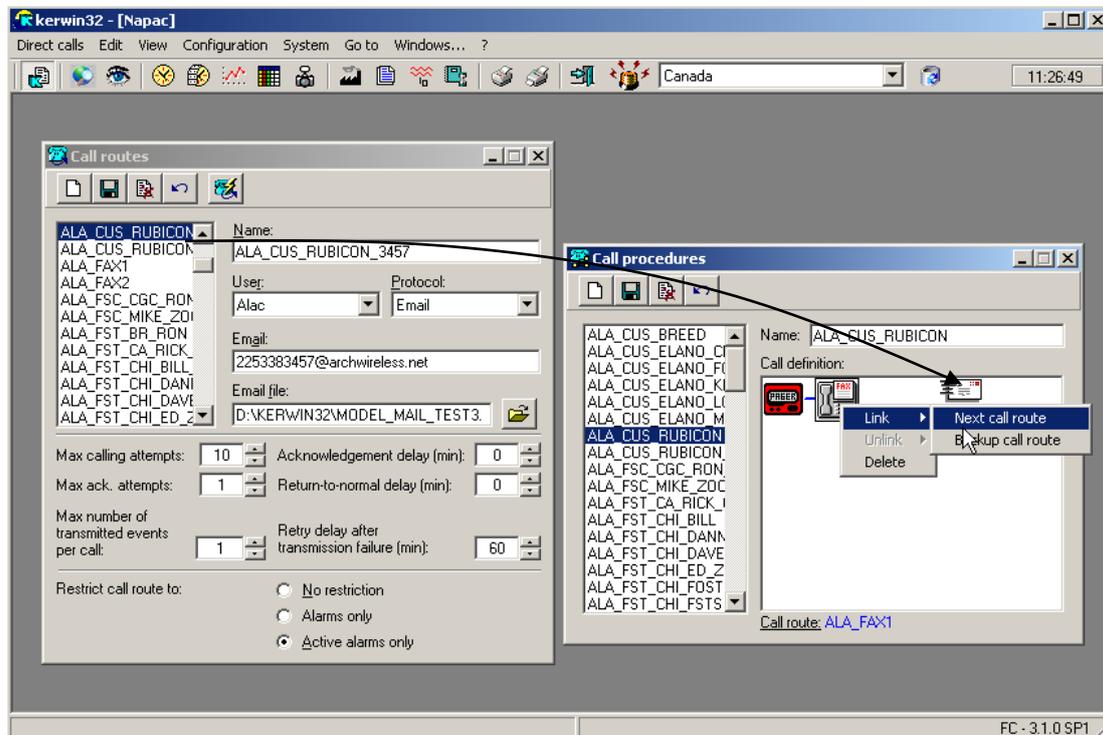
If the procedure includes 2 recipients, just successively position and link the various recipients, in an order that complies with any call priorities.

If there is an error for a recipient:

- Place the mouse on the recipient
- Right-click
- The link menu above will appear
- Choose "Unlink" if you only want to delete the recipient's link to another recipient
- Choose "Delete" if you want to delete the recipient



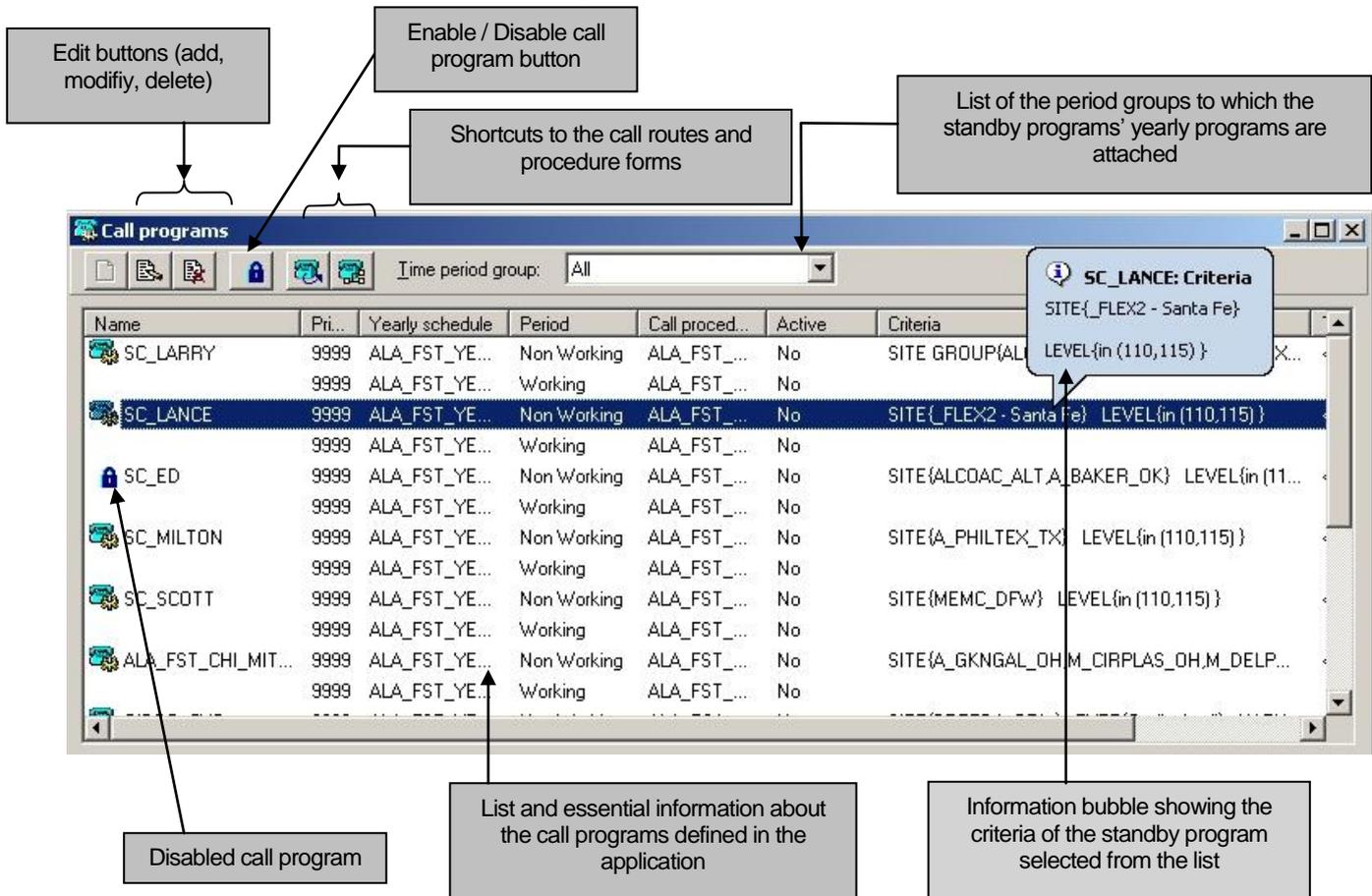
More precisions and examples about call procedures can be found in the Annex I of this manual.



7.21.9 Call programs

7.21.9.1 Call programs list

Call programs are configured via the Configuration / Alerts/ call Programs menu.



This form is used to declare the application's call programs according to the various discrimination criteria to be taken into account: these mainly relate to the origin of the events (Site groups, Sites, etc), their nature (categories, Classes, etc) and their degree of seriousness (Criticality).

Several call programs may be defined corresponding to different groups of criteria. A yearly program calendar (*yearly schedules*) is allocated to each call program and the alert procedures for the various working periods, non-working periods and possibly semi-working periods (*call procedure*).

The *Priority* parameter is used to indicate the programme to be executed when the same events are allocated to different programs (in view of the possible overlapping of criteria); this priority is managed by decreasing order, priority 1 corresponding to the maximum priority level. Two programs may not have the same priority.

### 7.21.9.2 Call programs deactivation

It is possible to disable a call program, by selecting it and clicking on the 'Disable' button.

If the program has no pending events, it will be disabled, and its icon in the list will be replaced by a lock icon.

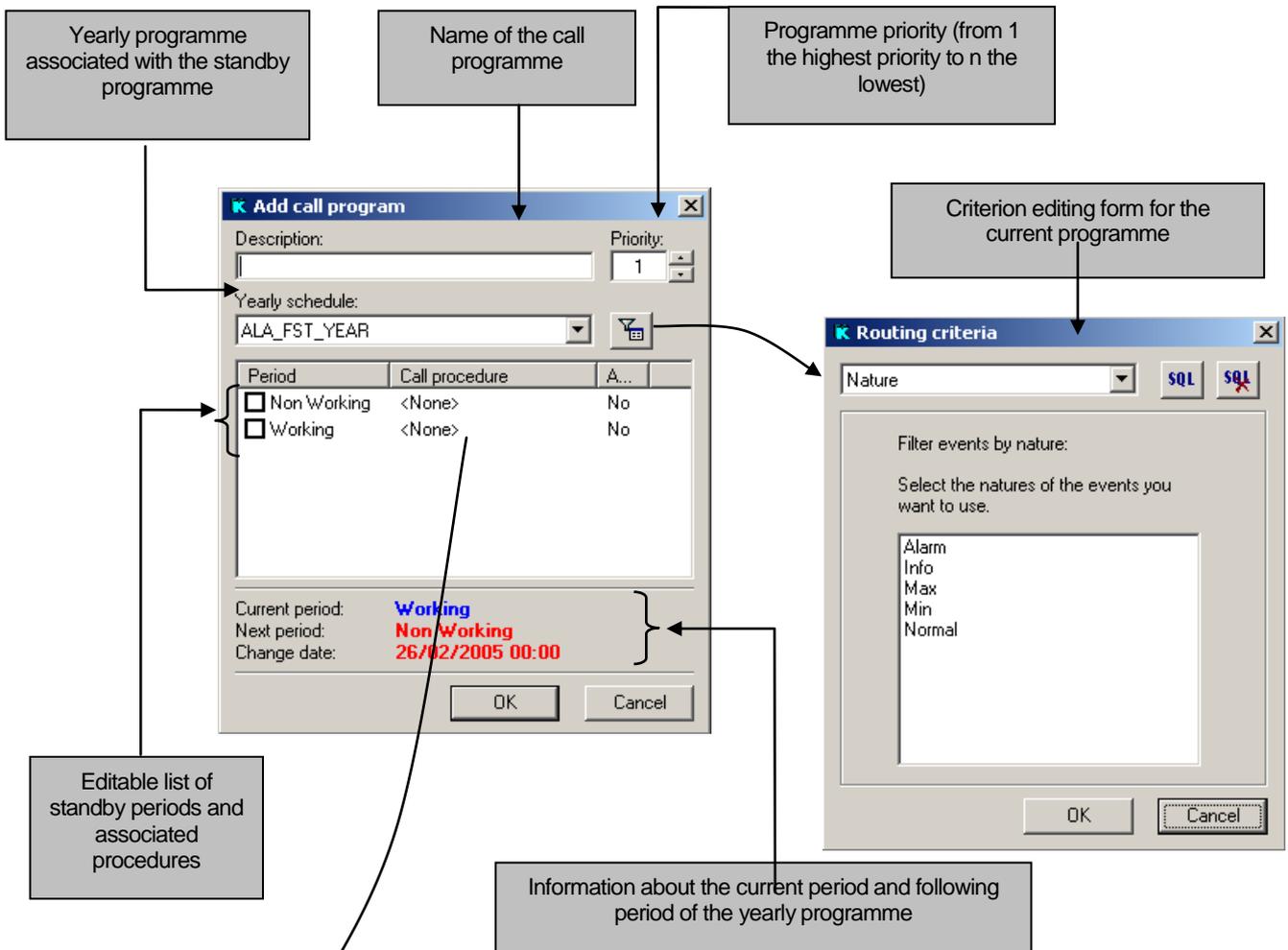
If there are events assigned to this program, a confirmation popup will be displayed, providing 3 actions:



- Cancel: cancels the program deactivation.
- Suspend: suspend calls for the events currently assigned to the program until its reactivation.
- Reassign: remove the events from this program, to allow other active programs to handle them.

7.21.9.3 Call programs creation/edition

- To create a new call programme:
- Click on the Add button, after selecting a time period group from the list at the top of the form
- The following form will appear:



Editable list of standby periods and associated procedures

NB  
To choose a procedure associated with a period in the yearly programme, you must  
Click once in the 'call procedure' column  
Then click a second time in the same place; the the list of procedures will then appear

This screenshot shows the 'Add call program' window with the 'Call procedure' dropdown menu open for the 'Working' period. The menu lists several procedures including ALA\_CUS\_BREED, ALA\_CUS\_ELANO\_CLAYPOOL, ALA\_CUS\_ELANO\_FOREMAN\_GABLE, ALA\_CUS\_ELANO\_KINDLE\_GABLE, ALA\_CUS\_ELANO\_LOCK\_MEHL\_GAB, ALA\_CUS\_ELANO\_MEHL\_GABLE, and ALA\_CUS\_RUBICON.

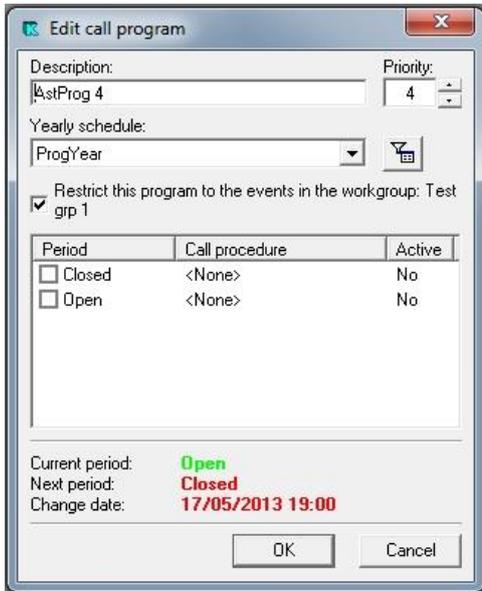
- To modify a call programme:
- Select the programme to be modified

- Double-click to display the previous form

**7.21.9.4 Call programs workgroup restriction**

At creation, a call program is created in the workgroup of the user who created it. If the user doesn't have a workgroup, then the program won't have a workgroup either.

When a program is in a workgroup, a new option appears in its configuration window, allowing the user to restrict its execution to the sites in the same workgroup.



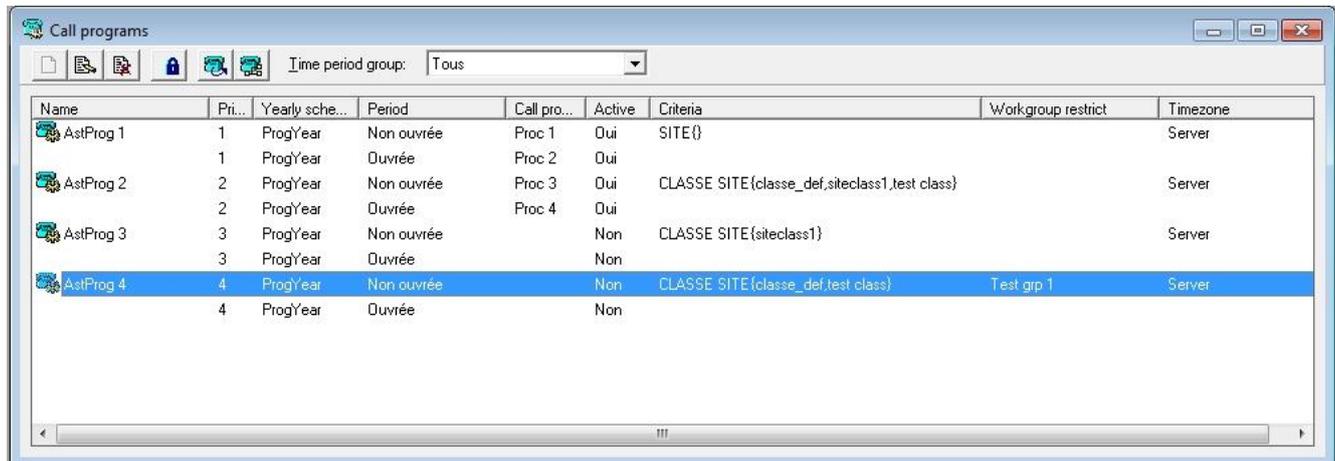
If this option is checked, the program will apply only to the events on sites from its workgroup.

If the option is unchecked, the program applies to all events in the kerwin, regardless of their workgroup. This option has to be handled carefully because it could provoke weird behaviors because those events may come from sites invisible to the user who created the program.

If the program doesn't have a workgroup, the option will not appear.

**Due to its risks, this option can be modified only by users without workgroup.**

The Workgroup column of the call programs list displays the workgroup the program applies to. If a program is not restricted to its workgroup, the column will remain empty.



**7.22 SPREADSHEET****7.22.1 Presentation**

KERWIN's Spreadsheet allow the easy creating, and then publishing, of statuses and reports using data present in the databases, by directly displaying them on the screen, printing them, transmitting them by fax or email, or publishing them on a website using KERWIN's KERWEB module. Publishing takes place either on request, or is scheduled by means of the sequencer.

A management chart appears in the form of a spreadsheet type work space made up of cells that are themselves grouped together into sheets.

Spreadsheets are configured in several phases:

- The defining of the data to be displayed, by configuring 'variable', 'formula' or 'query' cells
- The configuring of the spreadsheet appearance (character fonts, colours, etc)
- The defining of any graphs
- The possible integrating of the file charter created in one or several sequences for automatic distribution

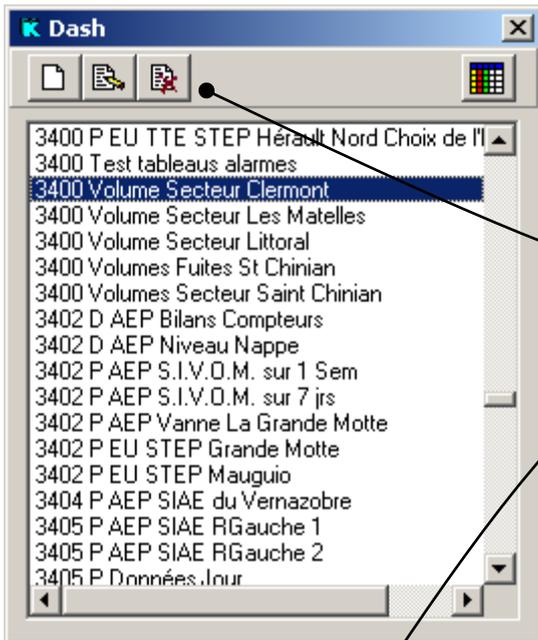
7.22.2 Management of the spreadsheet

7.22.2.1 Creation of a spreadsheet

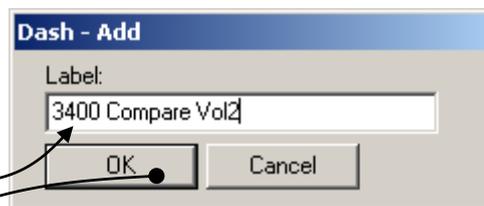
ACCESS : CONFIGURATION / SPREADSHEET OU 

The first operation to perform when you want to create a new dashboard is to declare it in dashboards list; this statement is made under Spreadsheet Configuration menu (see [Getting started / Presentation of the menus](#)).

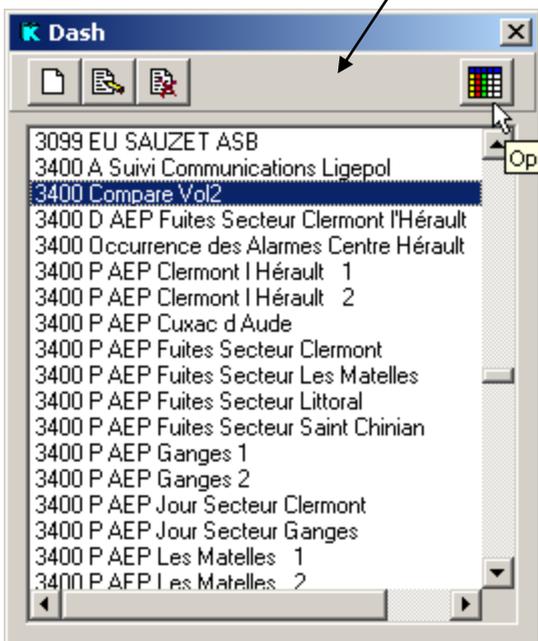
KERWIN displays the form enabling creating, changing name, removing dashboards:



Click the creation button , the following dialog box appears:



Enter the name of the dashboard that you want to create ("3400 Compare Vol2" here), then validated by a mouse click on the OK button.



The new dashboard is included in the list of dashboards. There is yet no information.

Click mouse button. 

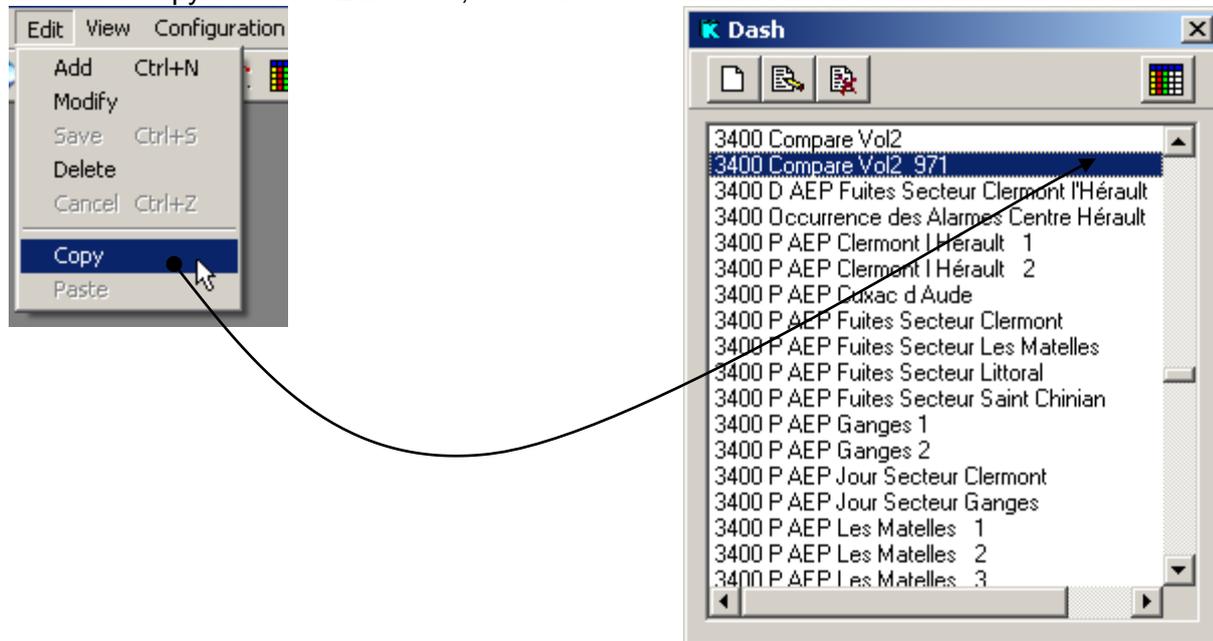
KERWIN displays a window that will support creation and editing of your new dashboard

If this window is already present, KERWIN loads the new dashboard on the inside.

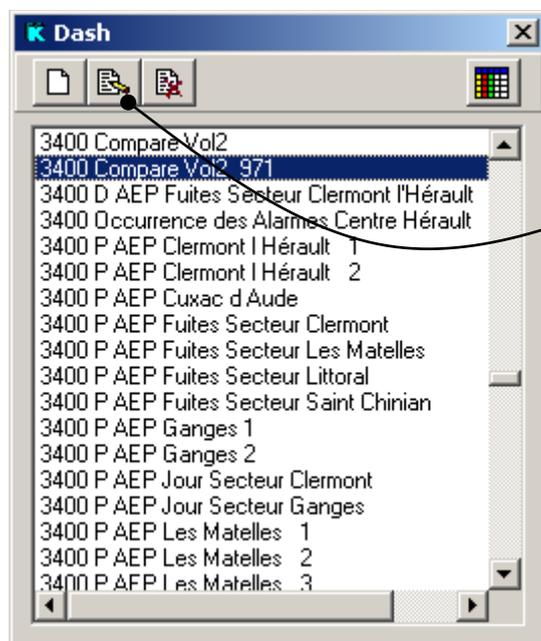
7.22.2.2 Copy-paste of a spreadsheet

ACCESS : EDIT / COPY|PASTE OR CTRL+C|CTRL+V

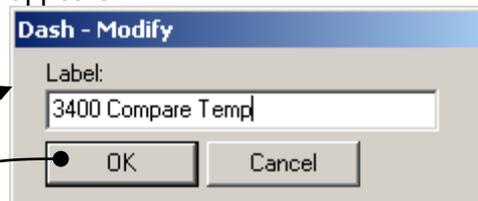
You can create a dashboard by duplicating an existing one. To do this you must perform a copy / paste. Display the window administration dashboard. Select the dashboard to duplicate. From the Edit menu, select the action Copy. From the Edit menu, select the Paste action. A new dashboard comes in the list.



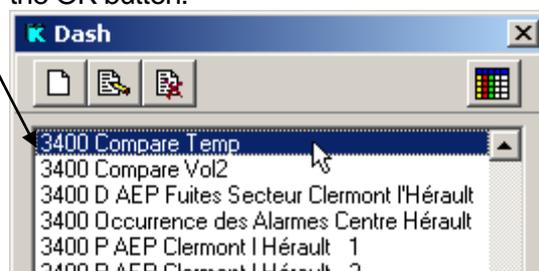
7.22.2.3 Rename a spreadsheet



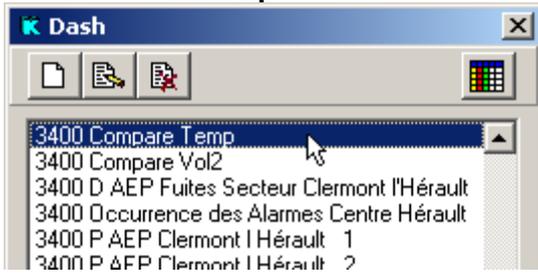
Click mouse button  ; the following dialog box appears:



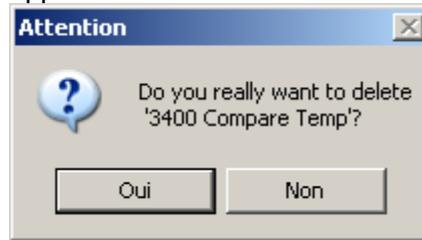
Enter the new name for the dashboard (here in 3400 Compare Temp), then validate by a mouse click on the OK button.



7.22.2.4 Delete a spreadsheet



Click mouse button  ; the following dialog box appears:

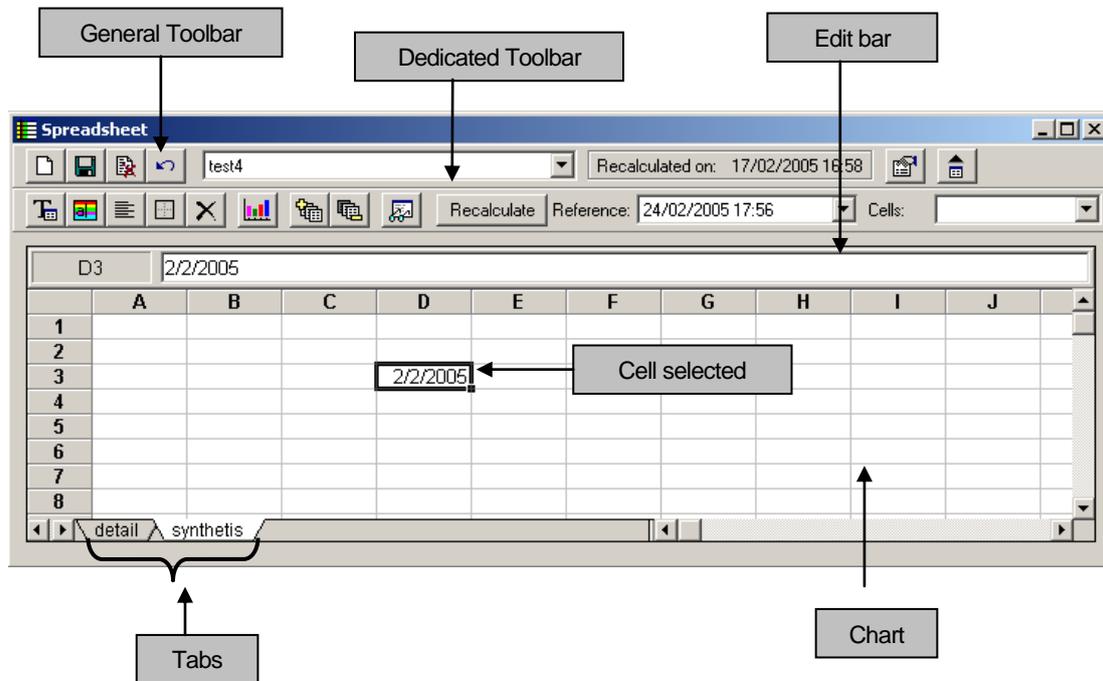


Validate by a mouse click on the OK button. The dashboard is deleted.

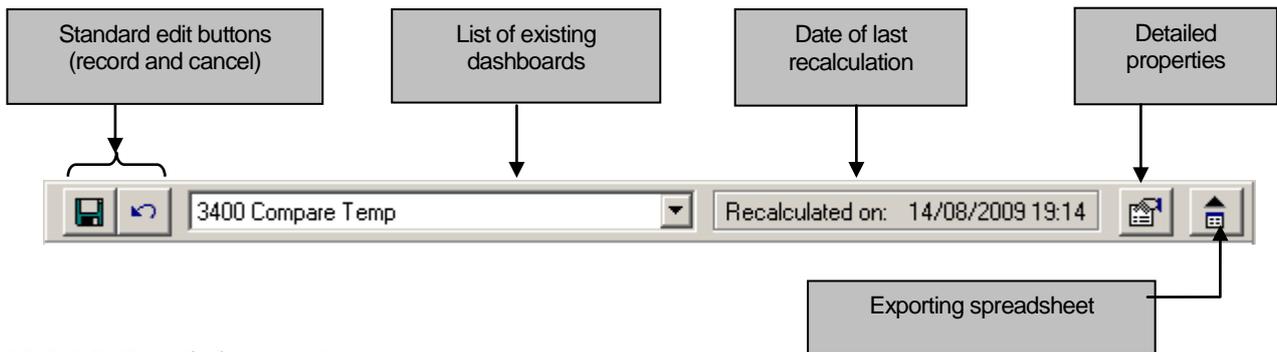
7.22.2.5 Drag 'n Drop of a spreadsheet on a synoptic

See synoptic module. ([Creating a link with a dashboard](#))

7.22.3 Work space

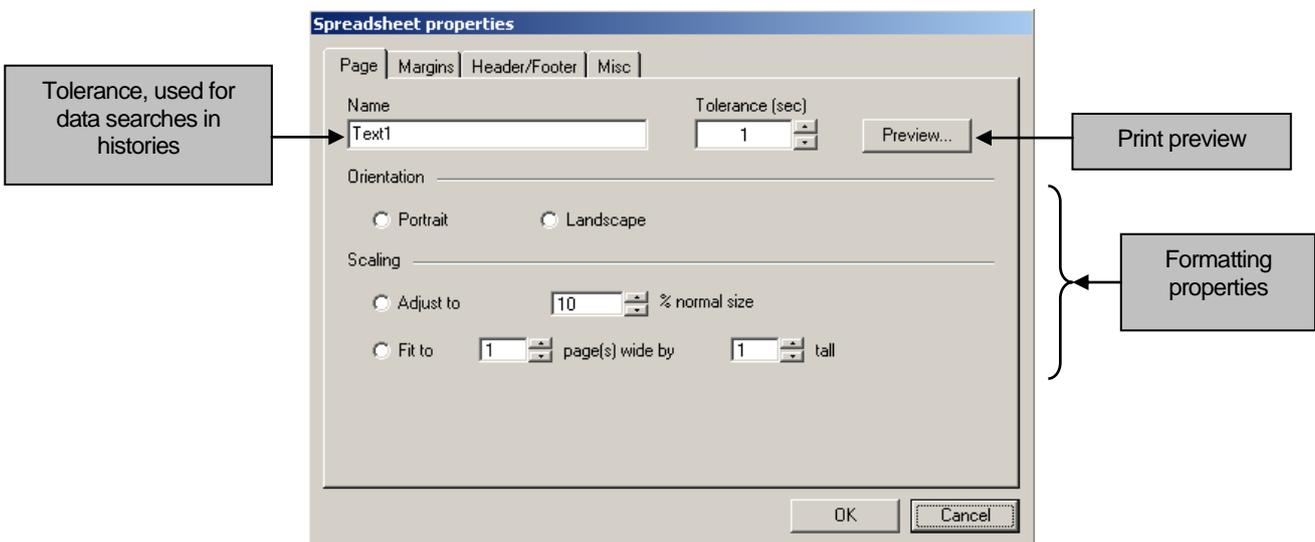


7.22.3.1 General Toolbar



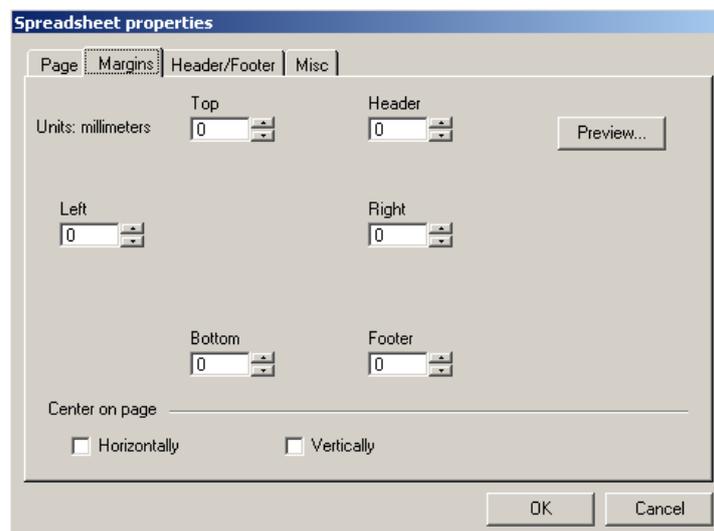
7.22.3.1.1 Detailed properties

The 'detailed properties' tab brings up the following form, which includes various tabs for the defining of the management chart's general properties (name, printing, etc)



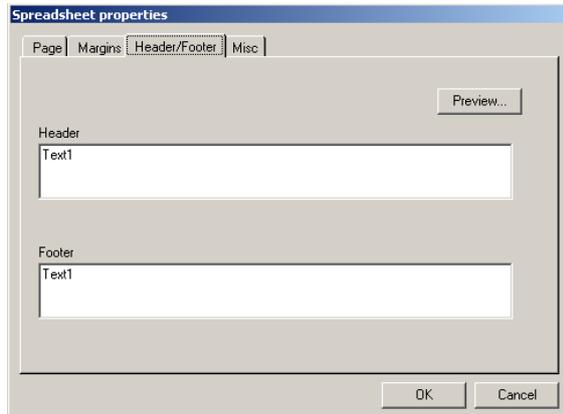
Tolerance is a general parameter used when searching for a value in a history: if this value is not found at the date requested, KERWIN's generator will look for the value that is the closest to this date within the tolerance limit.

Defining of margins



Defining of the page header and footer: this form defines the text that will appear in the page header and footer, by means of the meta-fields, whose syntax is the following:

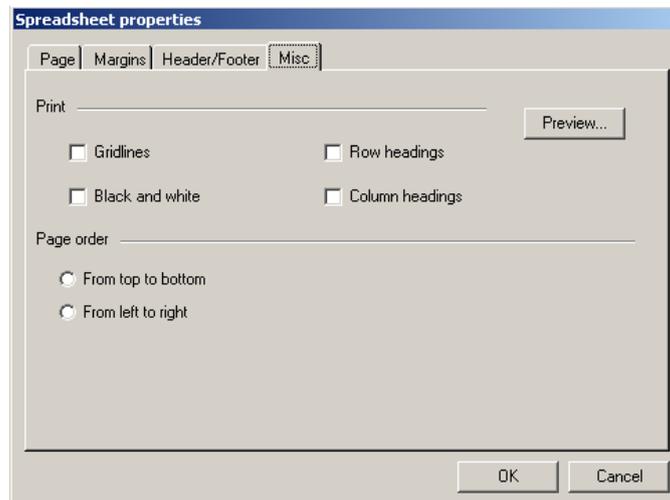
- &L     Align left
- &C     Centering
- &R     Align right
- &A     Name of current tab
- &TS    Current date/time
- &DTS   Date/time of table
- &F     Name of management chart
- &P     Current page
- &N     Total number of pages
- &&    Displays the character &



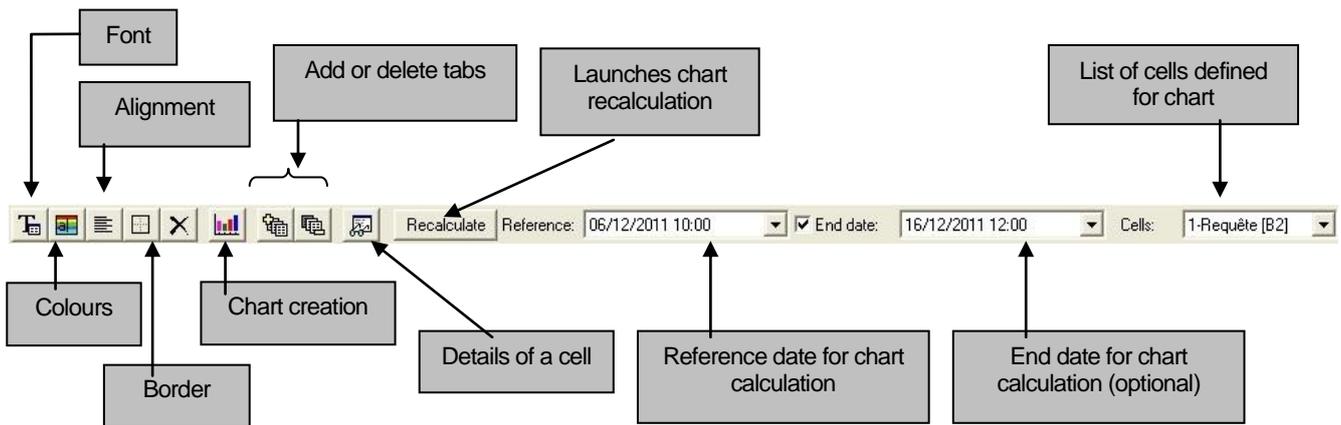
The following commands must be placed in front of text, or the previous commands, except for the alignment commands (&L, &C, and &R), which indicate the start of a new section. The commands relating to the character font (&B, &I, &U, etc) are therefore placed after the alignment commands, but before the text in the new section.

- &B            Bold
- &I            Italic
- &U            Underligne
- &S            Strikethrough
- &"fontname"   Font name
- &nn           Font size (2 figures)

Various printing parameters



7.22.3.2 Dedicated toolbar



The formatting (font, colour, border) of the 'Column' type cells (in other words query column titles) is applied to all the column's cells.

7.22.3.3 Edit bar



This edit bar is used to quickly change a cell's text.

**NB**

The component used by KERWIN to manage management charts can be used to define **Excel type forms** by means of this edit bar. **You are very strongly advised NOT to use this functionality**, which may hinder the migrating of management charts towards later versions of KERWIN. **You are advised to use 'Formula' type cells instead** that offer the advantage of easy migration and have the same syntax as that of internal variables.

7.22.4 Cells

This is the basic element of the management charts. They are characterised by their type:

- Query, which allows the retrieval of data from KERWIN's databases, via a query editor
- Variable (or variable), which allows the retrieval of a variable value with various options
- Formula, which is used to create formulae between cells or to retrieve KERWIN data
- Column, which is used to define the presentation properties of a query's columns

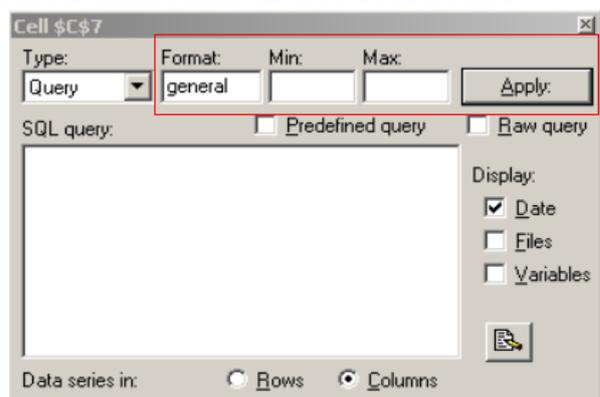
The other types proposed are obsolete and should no longer be used. They will no longer be supported in future versions of KERWIN.

Editing is carried out by double-clicking on the cell to be edited, which brings up the following form:

The upper part of the cell consists of the properties common to all cell types, i.e. the following fields:

- Format
- Min
- Max,

And of the apply button, which is used to immediately save the changes made to a cell.



The format's syntax is as follows:

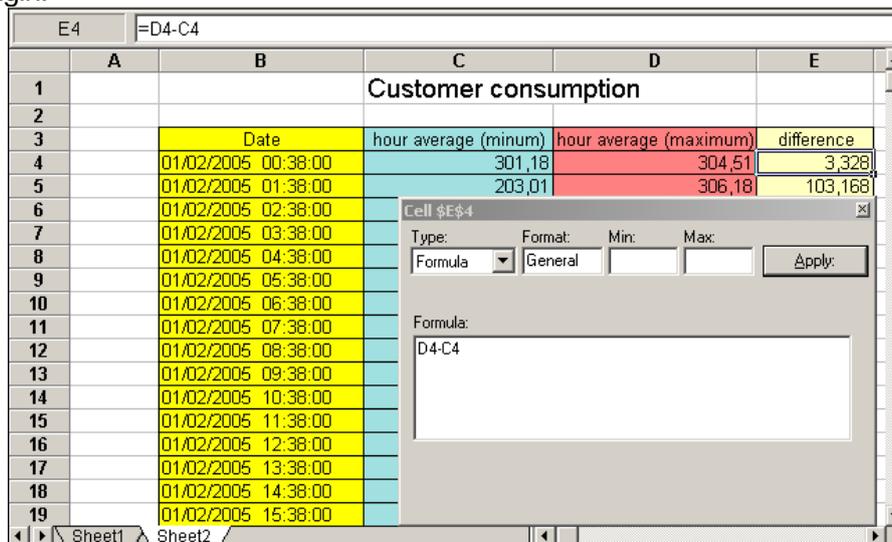
- For logic type variables: 'label 0 \ label 1', for example, 'Open\Close', 'On\Off'
- For other variables:
  4. “#” to display a figure or a space if there is no figure
  5. “0” to display a figure or a zero if there is no figure
  6. “.” for the decimal separator
  7. “,” for the thousands separator
  8. “E+e” and “E-e” for the scientific notation
  9. mm/dd/yyyy hh:mm:ss for date and hour
  10. character string for units

**For example**, the format '#####.00 °C' will display the value 245.5 in the form '245.50°C', and the format '0000.## °C' will display this same value in the form '0245.5°C'.

Syntax of the Min and Max attributes: these contain numeric values, allowing the viewing on the management chart of the variable's threshold exceedings or fault statuses, by associating a specific background colour with Min or Max. The colour is chosen by double-clicking in the input rectangle, which causes the displaying of the standard Windows colour pallet.

**7.22.4.1 'Formula' type cells**

A "Formula" cell allows a calculation to be performed via a formula using specific calculation functions. These calculation formulae may use the values contained in other cells within the same management chart, whatever their origin.



The syntax is the same as that of the internal variables, with in addition the possibility of referencing cells in the current management chart and two special functions, DateTB() and DateEND(), that return the management chart's reference date and time and end date and time, defined in the specific toolbar when a calculation is performed on request, or which are calculated and transmitted automatically by the sequencer in the case of a periodic calculation.

If the DateEND field is not active, the current date/hour is used for calculations.

Hereinafter list of calcul function available:

**7.22.4.1.1 Binary or logical operation**

OR, XOR, AND, NO, =, <>, <, <=, >, >=, >>, <<, +, -, \*, /, \, MOD, ^

**7.22.4.1.2 Function**

AVERAGE/MIN/MAX (A1:B3), AVERAGE/MIN/MAX (A1;B2,C3;12; ...)

SOMME (A1:B5), SOMME (A1;B2;C3;12; ...)

ABS, INT, LN, LOG10, SQR, SGN, TG, ARG, ASIN, ACOS, SINH, COSH, TGH, SIN, COS, PI, E

**Function: date**

DATEADD (DATE, NB, INTERVALLE, TYPE INTERVALLE)

DATEDIFF (DATE FIN, DATE DEB, TYPE INTERVALLE)

**7.22.4.1.3 Functions: miscellaneous**

C(I, J) with I: line, J:column

VARIABLE ( IDVOIE, IDFILE, OPER, DATE DEB

**7.22.4.2 'Variable' type cells**

These are also known as 'Variable' type cells. This type of cell allows you to retrieve and display the value of a variable, whether it is the last value known to KERWIN, or whether it is a value archived in a history. In this last case, it is also possible to define a calculation to be performed on the history (for example an average, or an energy consumption level), possibly taking in account a time distribution.

The information to be defined is the following:

- **Site**, selecting of the site containing the file and the variable to be displayed.
- **File**, selecting of the KERWIN history containing the values of the variable to be displayed in the cell; to retrieve the last known value, '<last value>' must be chosen from the list.
- **Variable**, selecting of the variable to be displayed
- **Operation**, choosing of the operation to be applied to the variable
- **From / To**
  11. Calculation start date; if this field is left empty, the management chart reference date is taken by default ("DATETB").
  12. Choosing of the duration (in mn) for which you wish to prolong the operation  
**NB:** for these two data, it is possible to give the reference of one of the management chart's cells, whose value will then be used
- **Manage tolerance:** this tickable box is used to opt to take into account the tolerance globally defined for the management chart. This tolerance is in this case taken into account in searching for the value of the variable at the date requested (from)
- **Distribution / Period:** this list is used to associate a distribution programme with the search for the variable value selected; this programme will be taken into account if an operation has been selected: in this case, the operation's evaluation (for example, an energy consumption calculation) will take place exclusively for the period of the distribution programme selected from the **Period** list.

7.22.4.3 'Query' type cells

A query cell is used to quickly create a selection query relating to data contained in KERWIN's databases. There are three type of query:

- Queries on historised data: a graphic query allows the easy defining of which data you wish to work on and with what type of processing
- raw query: an SQL query is directly sent and the result displayed; this possibility requires in-depth knowledge of KERWIN's data model and is outside the scope of this manual
- Predefined query: SQL queries have been defined in KERWIN's database, and using this option you can select them and manage some of their parameters; this function may be useful, but the creating of queries (in the form of stored procedures with SQL Server) requires in-depth knowledge of the SQL language, SQL Server databases and KERWIN's data model

7.22.4.3.1 Queries on histories

This is the default mode, which allows you to create a query on Kerwin's histories in a few mouse-clicks. The query is edited using the following form:

The image shows a screenshot of the 'Edit query' dialog box in the KERWIN software. The dialog is titled 'Edit query' and has several sections and options. Callouts provide detailed explanations for various parts of the interface:

- Top Section:** Includes 'Type' (set to 'Query'), 'Format' (set to 'General'), and 'Min'/'Max' fields. There are checkboxes for 'Predefined query' and 'Raw query'. A 'Display' section has checkboxes for 'Date', 'Files', and 'Variables'. A callout points to these checkboxes: "Display the date and/or the file name and/or the variable name relevant to the query".
- Measure files:** A dropdown menu showing '.Hermes (12th) - MEAS'. A callout explains: "List of the measurement histories available; syntax: 'site name - file name'".
- From:** Fields for 'From' (set to 'DATETB'), 'Shift' (set to '0'), and a dropdown for '<None>'. A callout points to the 'From' field: "Date & time delay: used to set the reference date and possible temporary time delay for calculation".
- Grouping/Restriction:** Radio buttons for 'Grouping' (selected) and 'Restriction'. A callout points to these: "'Grouping' or 'restriction' option".
- Data filters:** Fields for 'Data filters' (set to '<None>') and 'Time period' (set to 'Day'). A callout points to the 'Time period' field: "Choosing of a distribution and the associated period".
- Operation and variable list:** A list box containing '1LOXL Average' and 'Bat Min'. A callout points to this list: "List of the variables and operations performed".
- Variable and Operation:** Fields for 'Variable' (set to 'Bat') and 'Operation' (set to 'Min'). A callout points to the 'Operation' field: "Details of the variable selected from the list".
- Bottom Section:** Includes a 'Use tolerance' checkbox and 'OK'/'Cancel' buttons. A callout points to the 'Use tolerance' checkbox: "Tolerance management, defined in the management chart's general properties".
- Other Callouts:**
  - One points to the 'Raw query' checkbox: "Obsolete property kept for reasons of compatibility with previous versions; all queries must be specific".
  - Another points to the 'Grouping' radio button: "Grouping or restriction option" (with a sub-callout showing a zoomed-in view of the radio buttons and a dropdown menu).
  - One points to the list box: "Selecting / deleting of variables".

The important parameters are the following:

- Measurement history; the variables will be chosen from those of the history selected
- Variables and associated processing; the operations available are:
  13. Min, max, average, standard deviation
  14. Sum: cumulation of the values for the periods chosen
  15. Power consumption: difference in the variable between the end and start of the periods selected (power consumption calculation based on a meter index, for example)
  16. Integration, differentiation: corresponding mathematical operation for the periods selected (the unit of time is the second)
  17. Reading: simple retrieval of the variable's value on the start date of the periods selected, within the limit of any tolerance
- Date and time delay: the date is used as a reference for calculation; the management chart's reference date (syntax DATETB) may be used, or the chart's end date (syntax DATEEND), or the reference of a cell, whose content must be a date (syntax G6, for example, to use the content of cell G6 as a reference date); the time delay is used to apply a temporary time delay to the reference date
- The 'Grouping' / 'Restriction' option allows you to choose to make a calculation either:
  18. Through grouping by minute, hour, day, month or year for a given period, which allows several lines (or records) to be generated as a result: for example, when you want to perform one power consumption calculation per day over a month or quarter
  19. Through restriction: in this case, calculation is limited to a single period, and a single record is obtained as a result.
- Distribution: it is possible to condition the calculation to a distribution defined in KERWIN's Configuration / Data filter menu; in this case, the query calculation will only be carried out for the period selected. This option is particularly useful for simulating energy rates (calculation of power consumption according to calendar periods).

**Example** of calculation without distribution

B2		13/01/2005 16:38:00			
	A	B	C	D	E
1		Date	LIN LEVEL value (day average)		
2		13/01/2005 16:38:00	33,85		
3		14/01/2005 16:38:00	31,31		
4		15/01/2005 16:38:00	28,97		
5		16/01/2005 16:38:00	26,64		
6		17/01/2005 16:38:00	47,42		
7		18/01/2005 16:38:00	56,18		
8		19/01/2005 16:38:00	54,49		
9		20/01/2005 16:38:00	60,41		
10		21/01/2005 16:38:00	86,04		
11		22/01/2005 16:38:00	84,30		
12		23/01/2005 16:38:00	82,58		
13		24/01/2005 16:38:00	80,95		
14		25/01/2005 16:38:00	79,15		
15		26/01/2005 16:38:00	77,25		
16		27/01/2005 16:38:00	75,38		

**Example** of calculation with distribution

B2		13/01/2005 16:38:00			
	A	B	C	D	E
1		Date	LIN LEVEL value (day average)		
2		13/01/2005 16:38:00			
3		14/01/2005 16:38:00	30,92		
4		15/01/2005 16:38:00	28,97		
5		16/01/2005 16:38:00	27,50		
6		17/01/2005 16:38:00			
7		18/01/2005 16:38:00			
8		19/01/2005 16:38:00			
9		20/01/2005 16:38:00			
10		21/01/2005 16:38:00	85,74		
11		22/01/2005 16:38:00	84,30		
12		23/01/2005 16:38:00	83,17		
13		24/01/2005 16:38:00			
14		25/01/2005 16:38:00			
15		26/01/2005 16:38:00			
16		27/01/2005 16:38:00			

7.22.4.3.2 Raw queries

This option is used to create reports based on SQL queries or stored procedures sent as is to KERWIN's SQL database.

**NB** This function requires in-depth knowledge of KERWIN's database and the SQL language, which exceeds the scope of this manual.

BRIDOR		
LEVEL_CO2	58,24	04/11/03 08:24
LEVEL_CO2%	94,93	04/11/03 08:24
DP_lb	26785,87	04/11/03 08:24
PRESSURE	300,21	04/11/03 08:24
DIVA_degF	56,61	04/11/03 08:24
SENSOR_degF	47,50	04/11/03 08:24
BATTERY_V	11,14	21/08/03 13:55
MAINPOWER_V	23,66	21/08/03 13:55
TRUCK_ORDER	100,00	21/08/03 13:55
DIVA_DIAG	0,00	21/08/03 13:55
ANA_OUTPUT	15988,00	21/08/03 13:55
ZERO_ORDER	0,00	21/08/03 13:55
DO_ORDER	0,00	21/08/03 13:55
DIVA_MANAGER	15360,00	21/08/03 13:55
DIVA_RESET	0,00	21/08/03 13:55
DIGIT_INPUT	0,00	21/08/03 13:55
DIVA_COVER	1,00	21/08/03 13:55
ZERO_VALUE	0,00	21/08/03 13:55
SN_SENSOR1	41719,00	21/08/03 13:55
TEST_ALA	0,00	21/08/03 13:55

**Cell \$A\$3**

Type: Query    Format: General    Min:    Max:    Apply:

SQL query:  Predefined query     Raw query

SELECT VOIE.LIBELLE, VOIE.VALUE,  
 VOIE.LASTREAD FROM SITE, VOIE WHERE  
 VOIE.LTYPE<8 AND VOIE.RSITE=SITE.N AND  
 SITE.LIBELLE LIKE 'N7'

Display:  
 Date  
 Files  
 Variables

Data series in:     Rows     Columns

7.22.4.3.3 Predefined queries

This option is used to create reports based on query written in stored procedures from Kerwin database.

1. Create a query in table [Query] from Kerwin database  
 Using SQL server enterprise manager, open the table [Query], 3 fields must be filled:
  - SQL : refer to the name of the stored procedure containing instruction for the query
  - N : index
  - Libelle : query name
 Register the new row.
  
2. Create the relevant stored procedure  
 In 'Stored procedures' part of Kerwin database, create a stored procedure with instruction, parameters, query using SQL and save it with same name as in part 1.
  
3. Use the predefined query  
 Select the option 'predefined query' in the spreadsheet and select the right query from the list. If parameters are used, indicate the cell number and the parameter name as shown below.

**Note:** This function requires in-depth knowledge of KERWIN's database and the SQL language, which exceeds the scope of this manual.

SiteName	Last Read ( Local Time )	Variables
AC_HUMKO_OMA	04/14/2003 08:07:26	F1114
AC_HUMKO		71
AC_HUMKO		67
AC_HUMKO		#
ALDILA_UT		1
ALDILA_UT		7
ALDILA_UT		#1_LEVEL
AMERFUJI_		14
AMERFUJI_		71
AMERFUJI_		67
ARIZONA_A		14
ARIZONA_AUG	04/14/2003 07:11:20	F1971

#### 7.22.4.4 'Label' type cell

Default type when clicking in a cell. A label type cell is used a label or to display the result of a formula written in the cell. Only the field Format can be set.

#### 7.22.4.5 'Column' type cell

The first cell of each value column from a query is 'column' type cell (here C4 column) each value column is linked to the cell containing query (here B4). A column type cell allows defining format, min/max of column displaying result of the query.

	A	B	C	D	E
1			Customer consumption		
2					
3		Date	hour average (minum)	hour average (maximum)	difference
4		02/01/2005 00:38:00	301,18	304,51	3,328
5		02/01/2005 01:38:00	203,01	306,18	103,168
6		02/01/2005			0
7		02/01/2005			4,992
8		02/01/2005			4,992
9		02/01/2005			287,872
10		02/01/2005			98,176
11		02/01/2005			123,136
12		02/01/2005			119,808
13		02/01/2005			118,144
14		02/01/2005			119,808
15		02/01/2005			121,472
16		02/01/2005			118,144
17		02/01/2005			1,664
18		02/01/2005			13,312
19		02/01/2005			108,16
20		02/01/2005 16:38:00	0,00	189,70	189,696

The property screen for a column type cell displays following parameters:

#### Format

- Displaying format for analog variable:
  20. “#” to display a figure or a space if there is no figure
  21. “0” to display a figure or a zero if there is no figure
  22. “.” for the decimal separator
  23. “,” for the thousands separator
  24. “E+e” and “E-e” for the scientific notation
  25. mm/dd/yyyy hh:mm:ss for date and hour
  26. character string for units

**For example**, the format ‘#####.00 °C’ will display the value 245.5 in the form ‘245.50°C’, and the format ‘0000.## °C’ will display this same value in the form ‘0245.5°C’.

- For digital type variables: ‘label 0 \ label 1’, for example, ‘Open\Close’, ‘On\Off’

**Note:** format can be setted for each type of cell

#### Syntax of the Min and Max attributes:

These contain numeric values, allowing the viewing on the management chart of the variable’s threshold exceedings or fault statuses, by associating a specific background colour with Min or Max. The colour is chosen by double-clicking in the input rectangle, which causes the displaying of the standard Windows colour pallet.

#### 7.22.4.6 'List' type cell

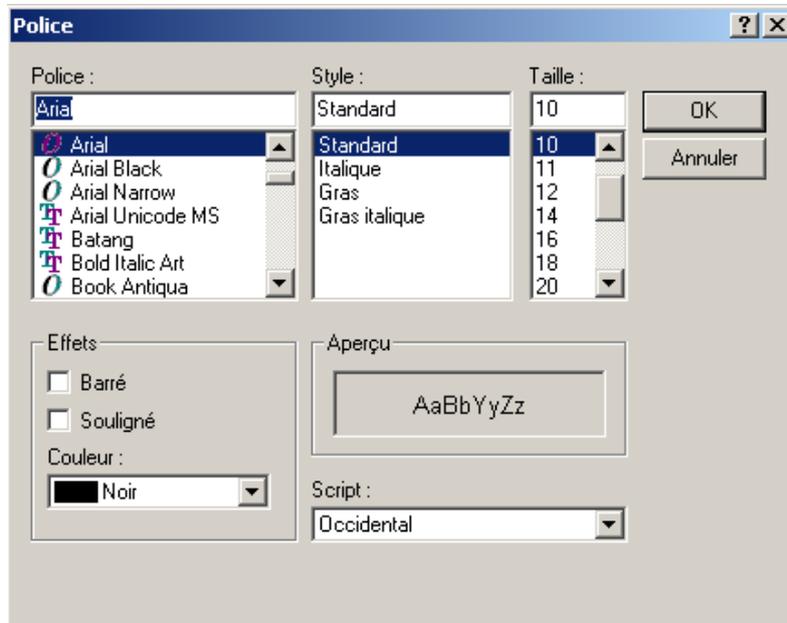
This type is not used in version 3.1 and more and already exists for compatibility with previous version;

**7.22.5 Configuring of the spreadsheet**

This is for setting font, back colour, border style and alignment in spreadsheet.

**7.22.5.1 Font**

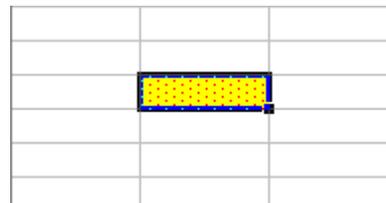
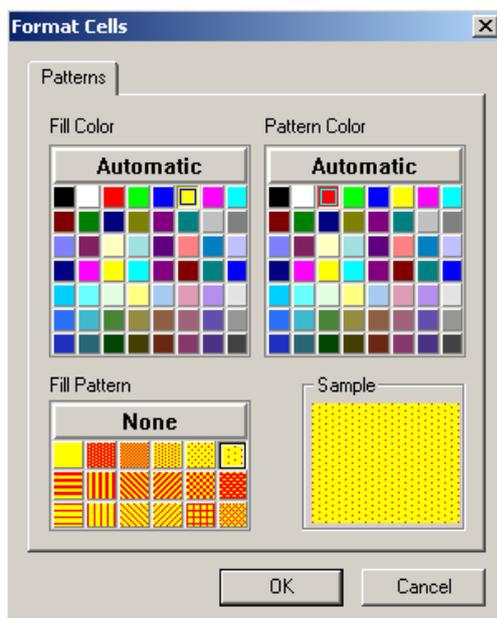
Click on  icon to open the font setting window.



The police, size and colour can then be chosen.

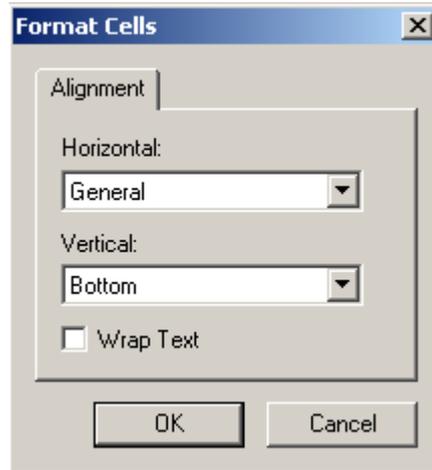
**7.22.5.2 Back colour**

Click on the  icon to open the back colour setting window. The colour is for the cell background and pattern. Choose the right colour for the background and pattern if necessary.



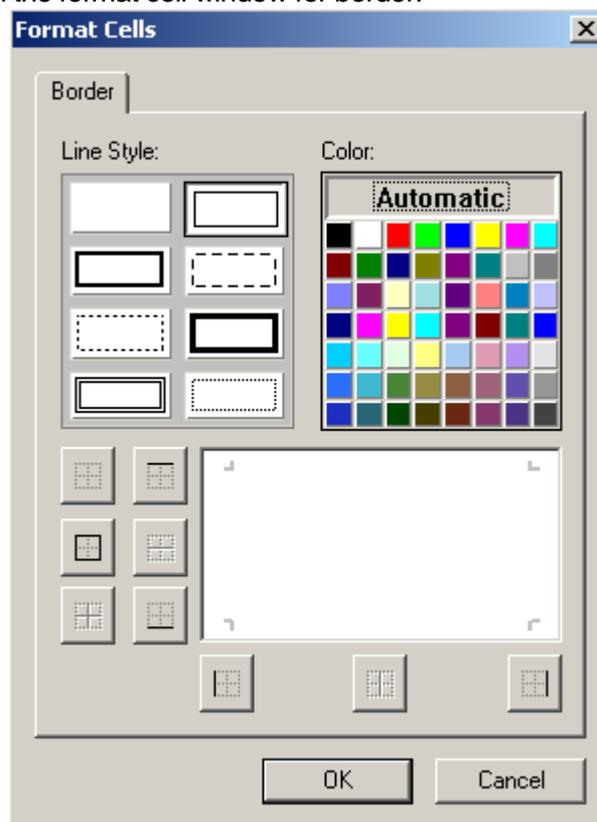
7.22.5.3 Alignment

Click on  icon to open the format cell window for alignment.



7.22.5.4 Border

Click on the  icon to open the format cell window for border.



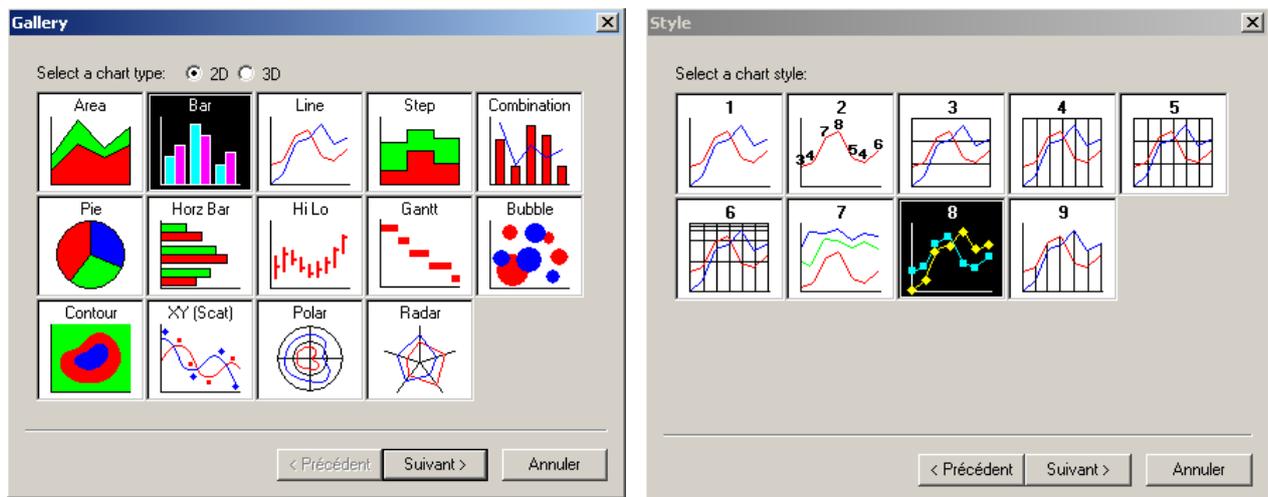
7.22.6 Integrating a Chart

A chart based on previous calculated/displayed data can be created.

Firstable, select the range of value involved in the chart and click on the  icon. The cursor turns in a cross to define the chart zone (size and place in the spreadsheet) clicking on the mouse left button. Keep the left button press to define the chart zone: the area therefore defined turns in white.

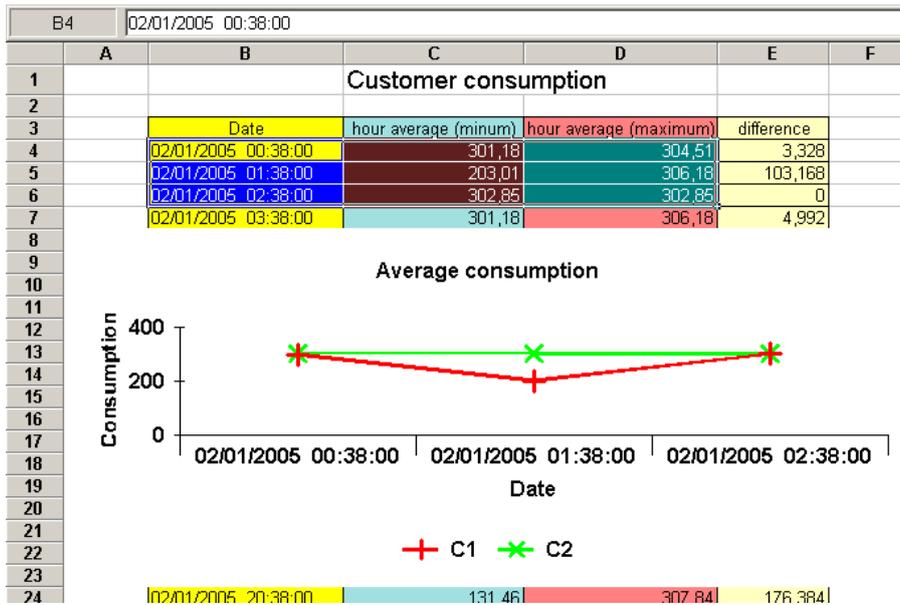
	A	B	C	D	E
1			Customer consumption		
2					
3		Date	hour average (minum)	hour average (maximum)	difference
4		02/01/2005 00:38:00	301,18	304,51	3,328
5		02/01/2005 01:38:00	203,01	306,18	103,168
6		02/01/2005 02:38:00	302,85	302,85	0
7					4,992
8					4,992
9					287,872
10					98,176
11					123,136
12					119,808
13					118,144
14					119,808
15					121,472
16		02/01/2005 12:38:00	0,00	118,14	118,144
17		02/01/2005 13:38:00	118,14	119,81	+ 1,664

Leave it when the required size and place are OK. A parametring window then appears.



Choose the type of chart (2D or 3D) et its style as well as the axes label and others parameters.

When finishing, click on Finish to display chart.



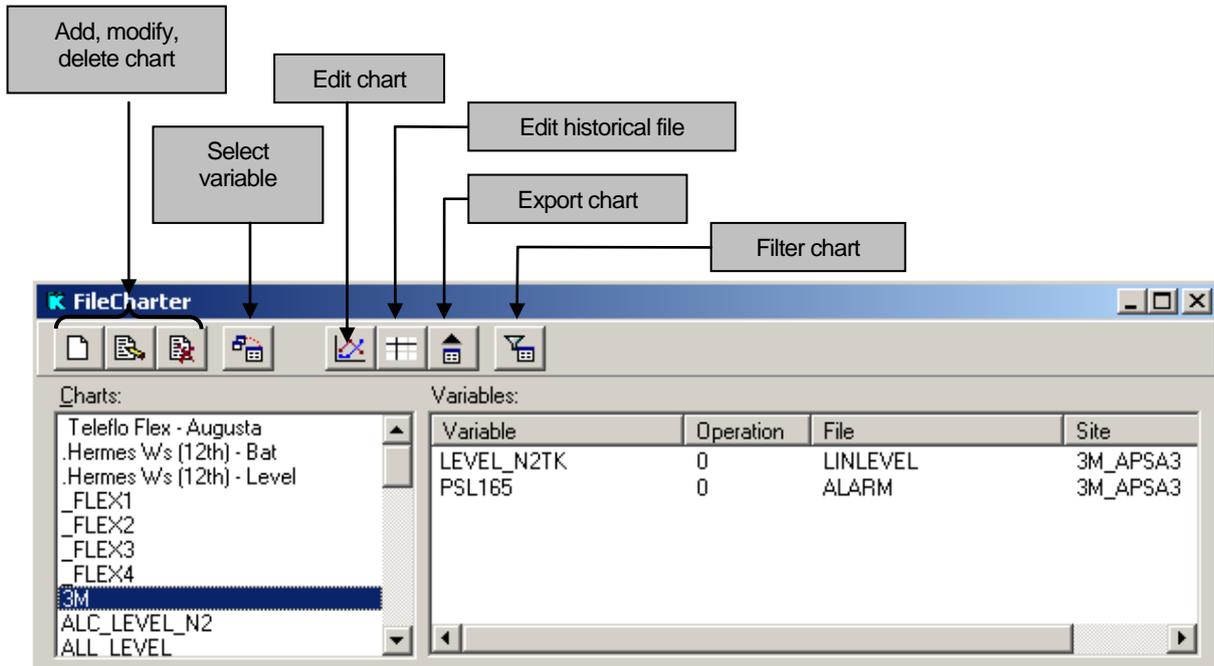
**7.22.7 Recalculation**

Each time the date in 'reference' field is changed, click on Recalculate button to update data displayed in the spreadsheet.

7.23 FILECHARTER

The Filecharter form allows to:

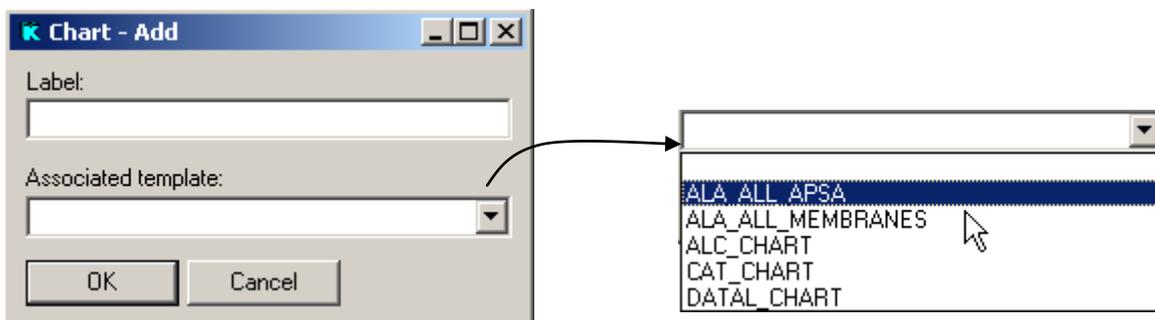
- add, modify, delete, display, filter, export chart
- select variable
- display historians



The action add, modify, delete chart and select variable are available only in edit mode. To create a chart, the following steps are required.

7.23.1 Create a chart

Click on the  icon to display the form. Fill the name and the template if needed (see [Template](#) part for more information about templates)

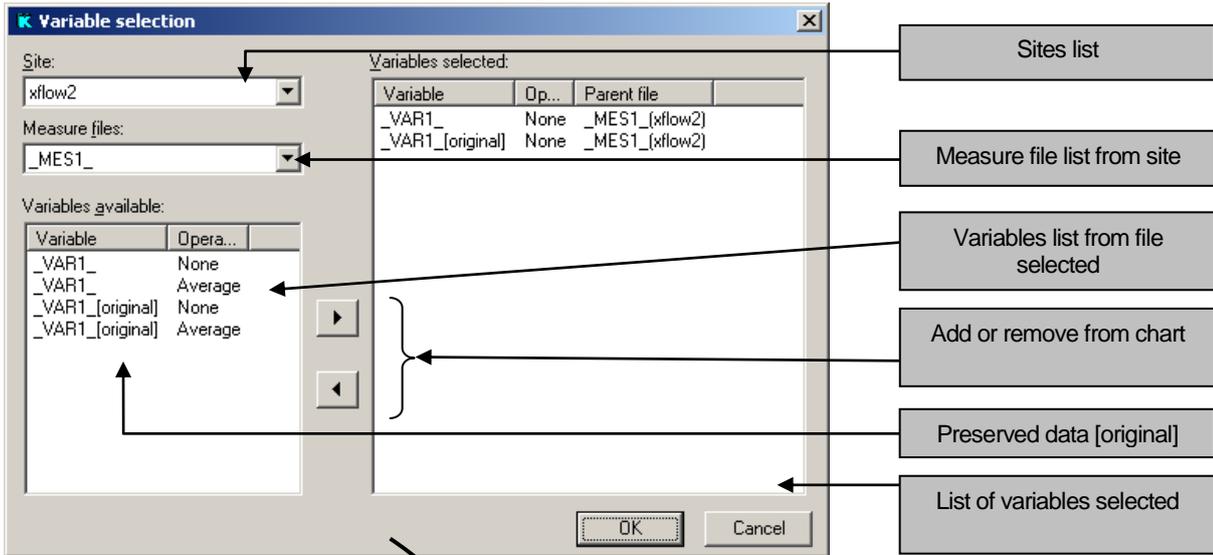


7.23.2 Select variables

Click on the  icon to display the form and select site, file and variable(s) to be displayed in chart. You can choose several times the same variable: you can then compare them with a time-lag.

**Note:** if variable selected has no data in the file, when displaying chart a message box error will appear.

**Note:** If the original data were preserved, the variable name is followed by the keyword [original] (see [Conversion Tab](#))

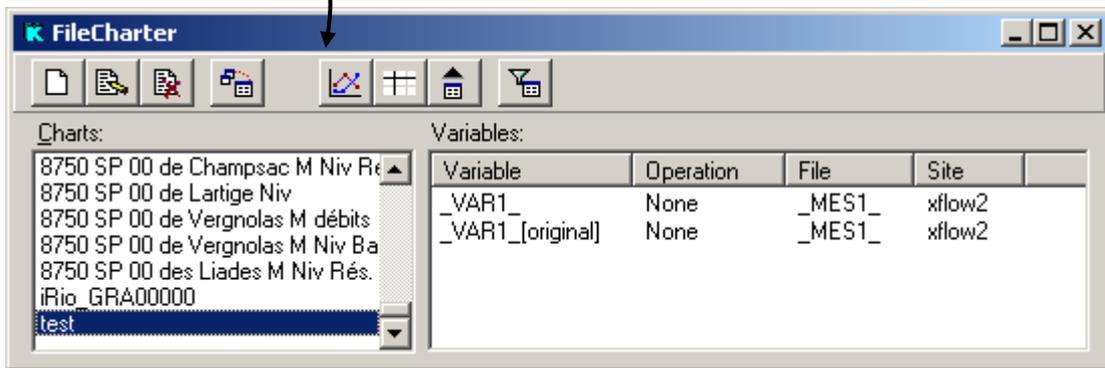


The 'Variable selection' dialog box contains the following elements:

- Sites list:** A dropdown menu showing 'xflow2'.
- Measure files:** A dropdown menu showing '\_MES1\_'.
- Variables available:** A table with columns 'Variable' and 'Opera...'. It lists:
 

Variable	Opera...
_VAR1_	None
_VAR1_	Average
_VAR1_[original]	None
_VAR1_[original]	Average
- Variables selected:** A table with columns 'Variable', 'Op...', and 'Parent file'. It lists:
 

Variable	Op...	Parent file
_VAR1_	None	_MES1_(xflow2)
_VAR1_[original]	None	_MES1_(xflow2)
- Add or remove from chart:** Two arrow buttons between the 'Variables available' and 'Variables selected' tables.
- Preserved data [original]:** A label pointing to the '[original]' suffix in the variable names.
- List of variables selected:** A label pointing to the 'Variables selected' table.



The 'FileCharter' main window displays the following data:

**Charts:**

- 8750 SP 00 de Champsac M Niv Ré
- 8750 SP 00 de Lartige Niv
- 8750 SP 00 de Vergnolas M débits
- 8750 SP 00 de Vergnolas M Niv Ba
- 8750 SP 00 des Liades M Niv Rés.
- iRio\_GRA00000
- test

**Variables:**

Variable	Operation	File	Site
_VAR1_	None	_MES1_	xflow2
_VAR1_[original]	None	_MES1_	xflow2

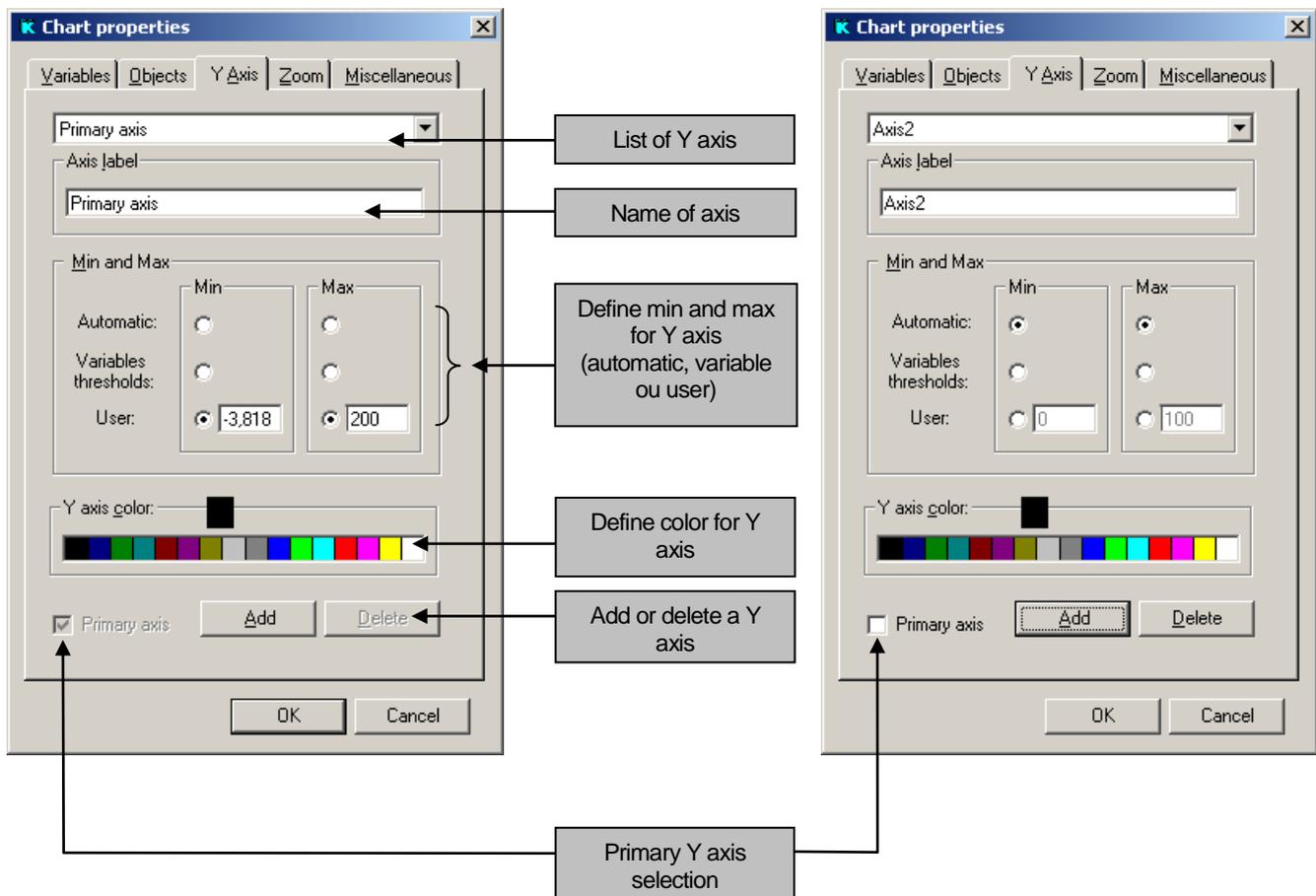
7.23.3 Set parameters of chart

Display chart and click with the mouse right button to make the file chart property form appear.

7.23.3.1 Axes

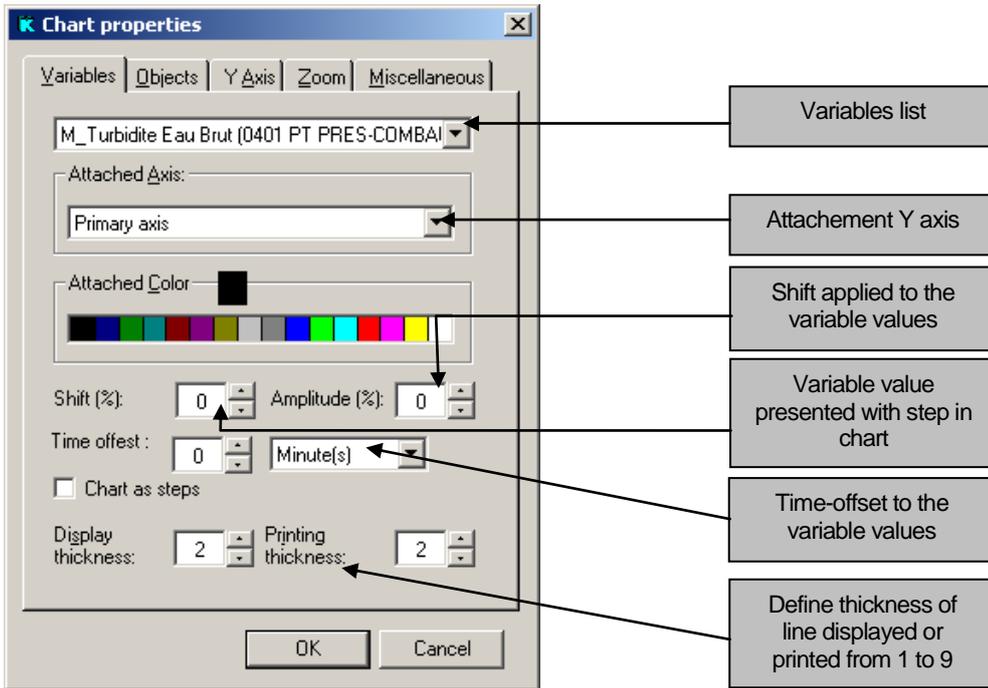
Define different parameters for the Y axes display. The primary Y axe selection can be modified when more than one Y axe. Just select another axe as primary Y axe

One can specify the minimum and maximum value on the axis. From version 5.0, the min and the max are independent of each other. We can therefore define a minimum and let the maximum in automatic mode. We can also ensure that the min and max are defined based on thresholds set on the variables. In this case the minimum of the axis will be the minimum of the minima and the maximum of the axis will be the maximum of the maxima. (See [min and max thresholds](#)).

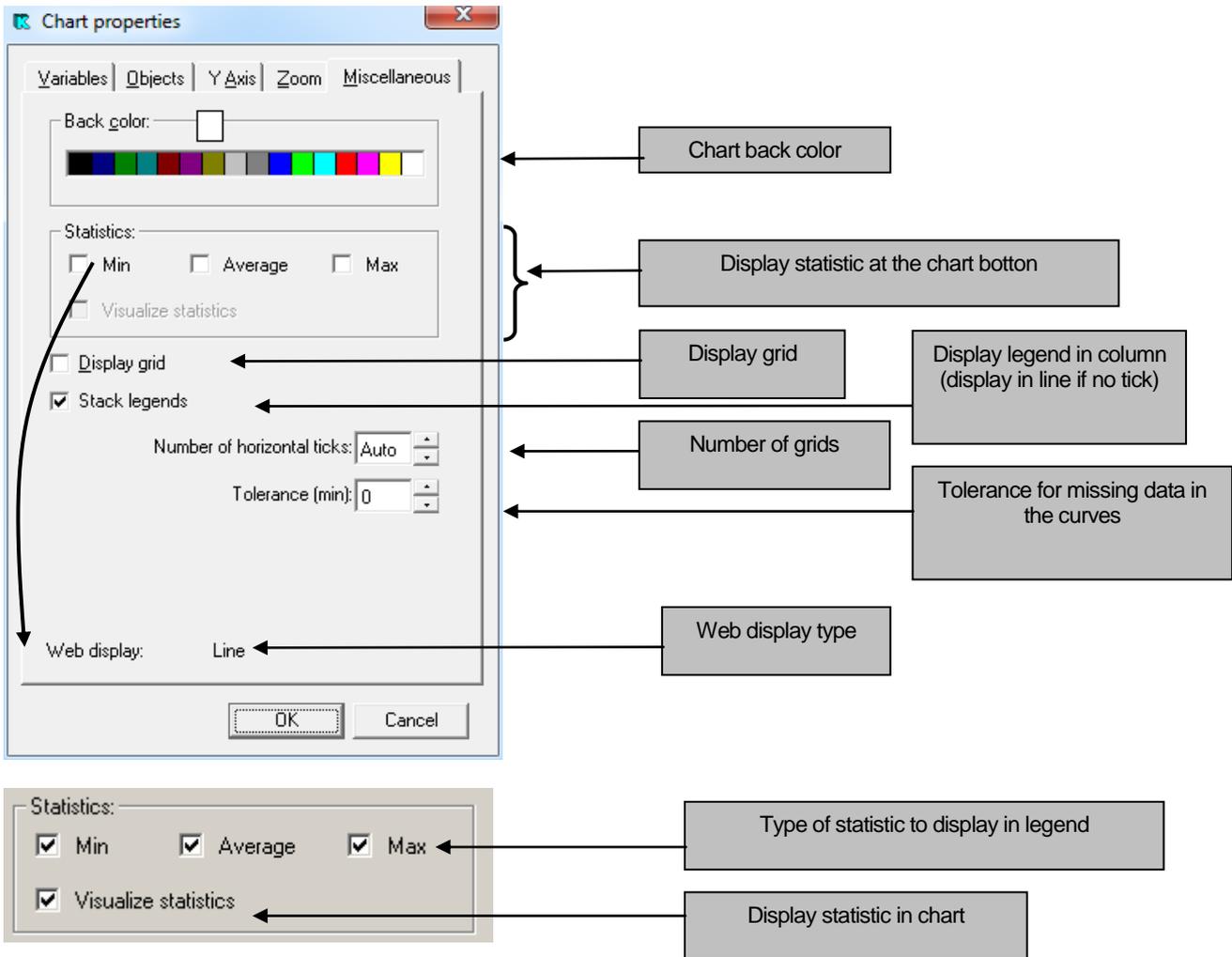


7.23.3.2 Variables setting

Define parameters for the variable display.



7.23.3.3 Miscellaneous



**Note: tolerance**

The tolerance parameter, set in minutes, represents the maximum offset allowed in regard of the curve's periodicity before displaying a hole in the curve. For example, with a curve with one point per hour, and a tolerance of 15 minutes, a hole will appear in the curve if the interval between two points is greater than 1 hour 15 minutes. If less, there will be no break in the continuity of the curve.

**Note: web display**

The web display is only an information, it can't be set in the windows interface because the web chart types are not available in kerwin interface. It contains the currently selected display type for the chart in the web pages and synoptic (XY, pie-chart, line, bargraph or classic). Classic is the default kerwin chart type.

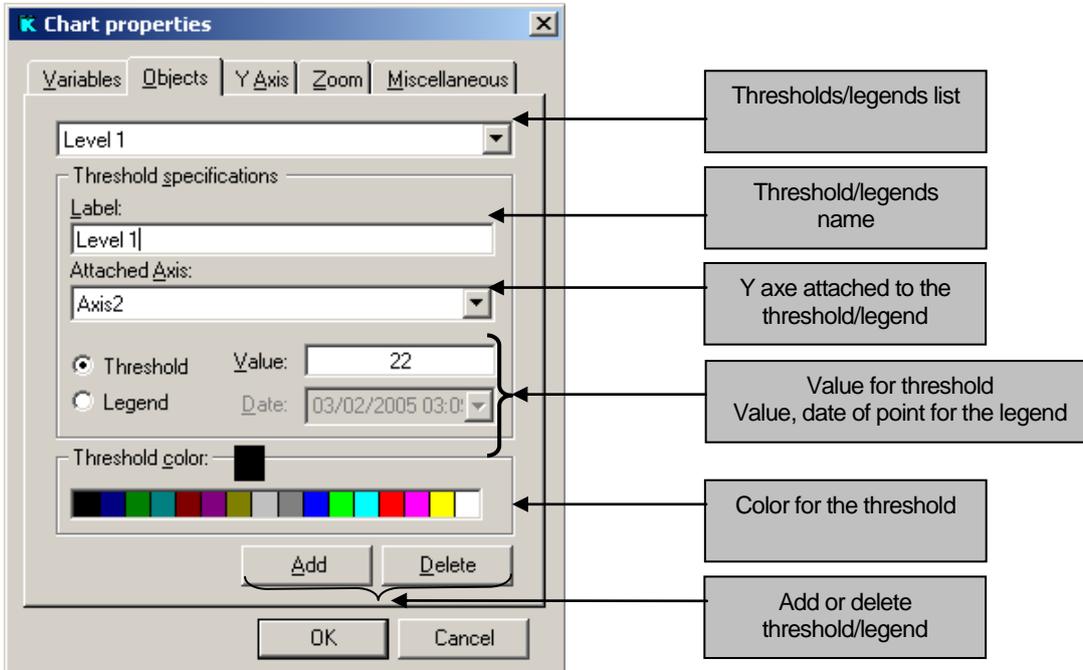
A chart with a web display type is still available in the kerwin interface, and will be displayed as a classic graph. For web display types, most of the chart configuration options are not taken into account, but they are still available when displaying the chart in kerwin.

In the special case of a XY chart, it won't be possible to remove its X axis variable in the kerwin interface, because it would impair the display of the chart in kerweb.

7.23.3.4 Objects

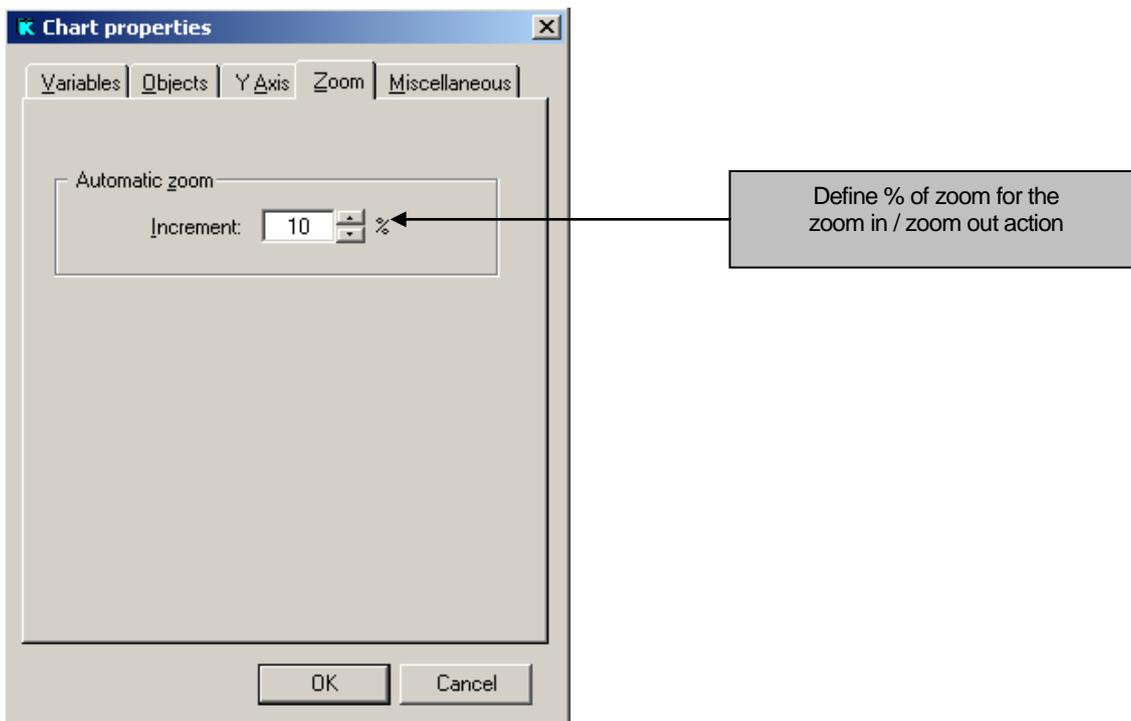
An object can be either a threshold or a legend. A threshold indicate a specific value in the chart, attached to an Y axis and displayed as a line. A legend is to indicate a specific point in the chart (e.g. to mention a shutdown of installation, repair or maintenance action ....).

For threshold, indicate the value and for legend, indicate the date of the specific point and its value if needed.



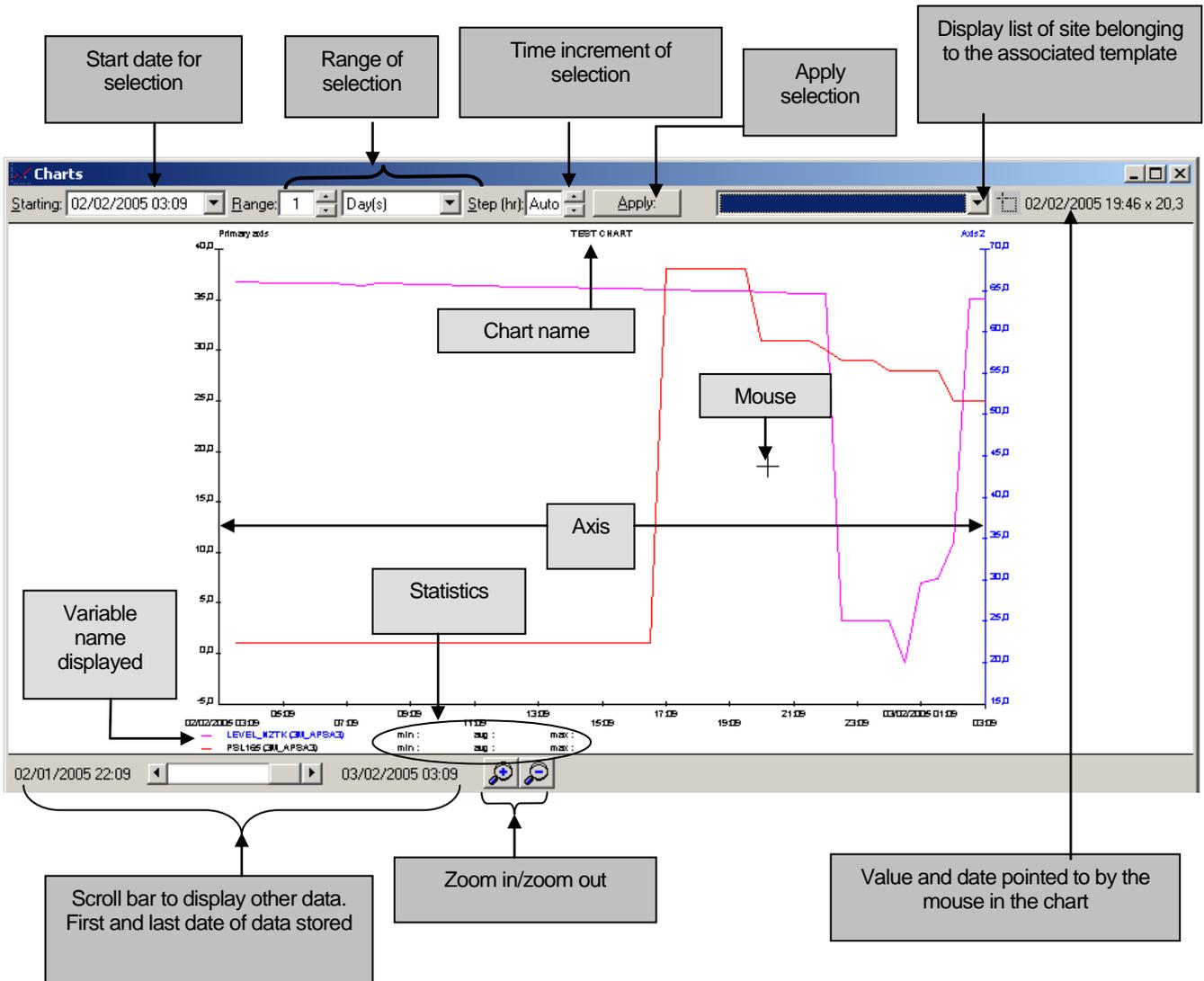
7.23.3.5 Zoom

When using zoom in applied on a chart, the zoom form of chart property indicate information



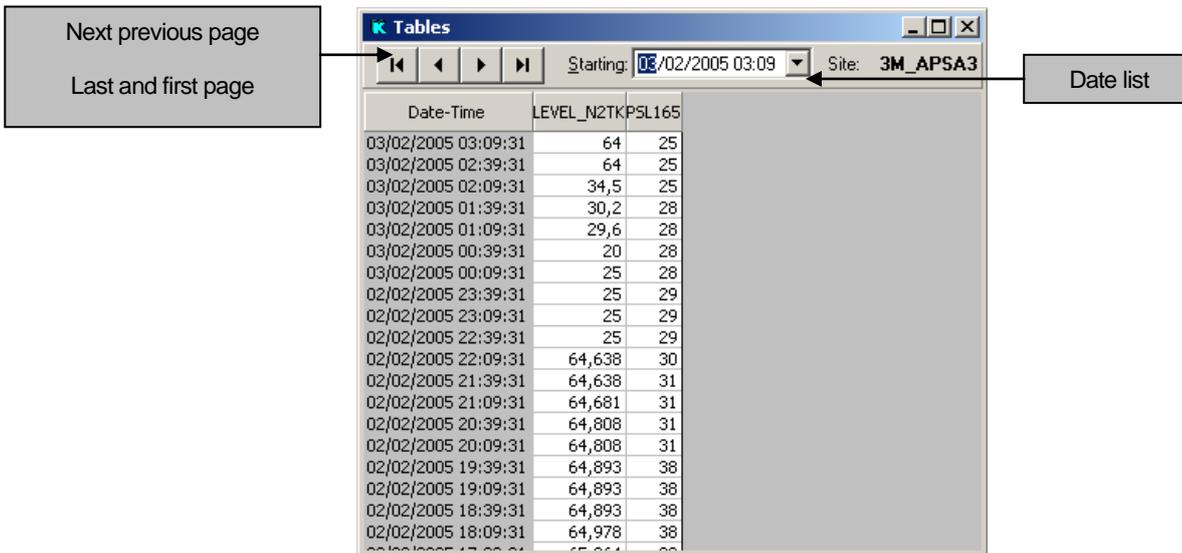
7.23.4 Display chart

To display chart, click on the chart icon  or click twice with the mouse left button.



7.23.5 Display table

To display measure file data, click on the table icon. 



Date-Time	LEVEL_N2TK	PSL165
03/02/2005 03:09:31	64	25
03/02/2005 02:39:31	64	25
03/02/2005 02:09:31	34,5	25
03/02/2005 01:39:31	30,2	28
03/02/2005 01:09:31	29,6	28
03/02/2005 00:39:31	20	28
03/02/2005 00:09:31	25	28
02/02/2005 23:39:31	25	29
02/02/2005 23:09:31	25	29
02/02/2005 22:39:31	25	29
02/02/2005 22:09:31	64,638	30
02/02/2005 21:39:31	64,638	31
02/02/2005 21:09:31	64,681	31
02/02/2005 20:39:31	64,808	31
02/02/2005 20:09:31	64,808	31
02/02/2005 19:39:31	64,893	38
02/02/2005 19:09:31	64,893	38
02/02/2005 18:39:31	64,893	38
02/02/2005 18:09:31	64,978	38

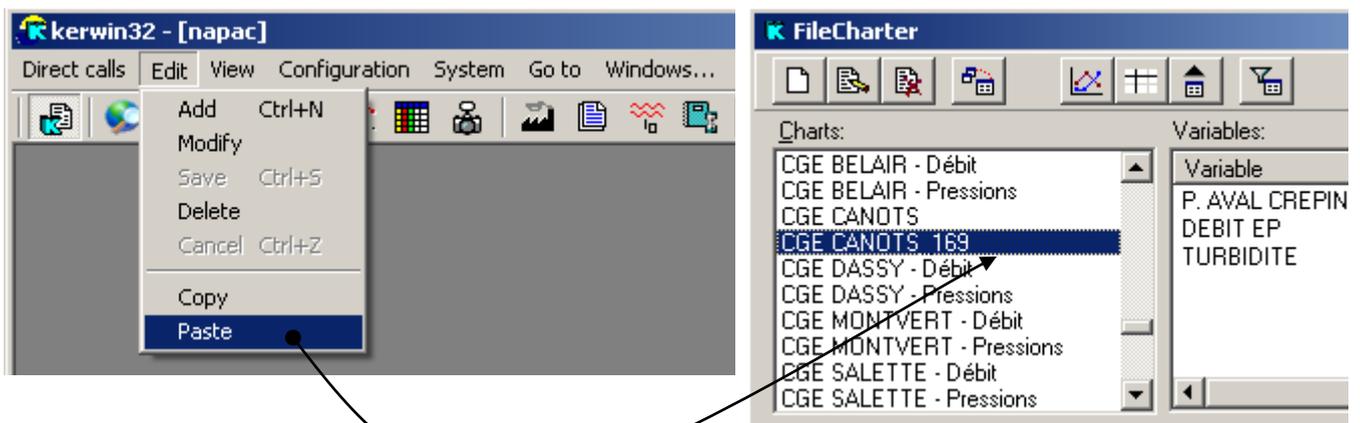
Date can be changed to display more information.

**Note:** If some original data are selected in graph, the corresponding column contains the variable name followed by the keyword [original] (see [Select variables](#))

7.23.6 Copy-paste a Chart

ACCESS: EDITION / COPY|PASTE OR CTRL+C|CTRL+V

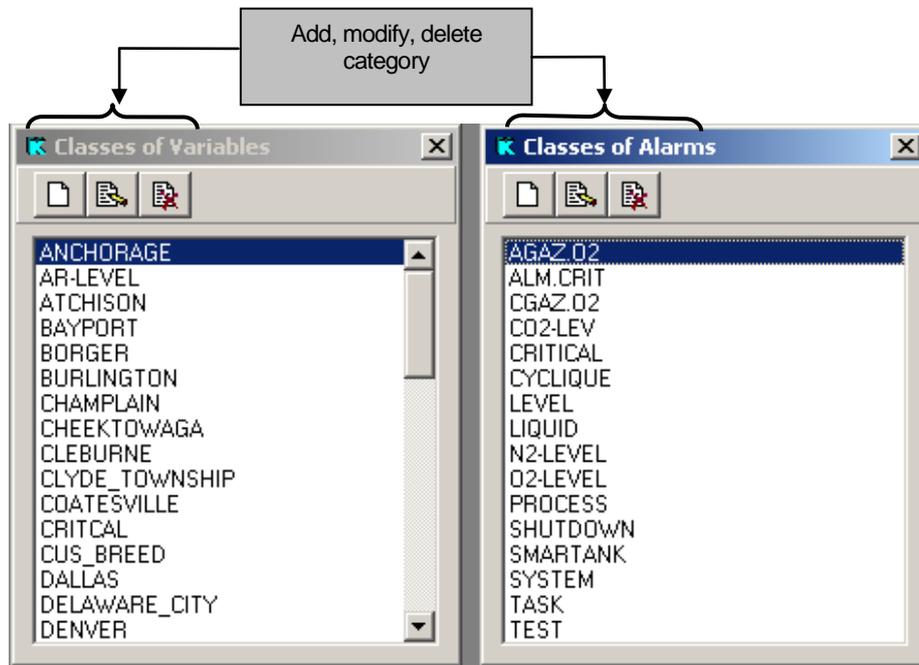
You can create a new chart by duplication of an existing chart. For it you have to make an action of copy/paste. Display the window of administration of charts. Select the chart to be duplicated. In the Edition menu, select the action of Copy. In the menu Edition, select the action of Paste. A new graph appears in the list



7.24 CATEGORY

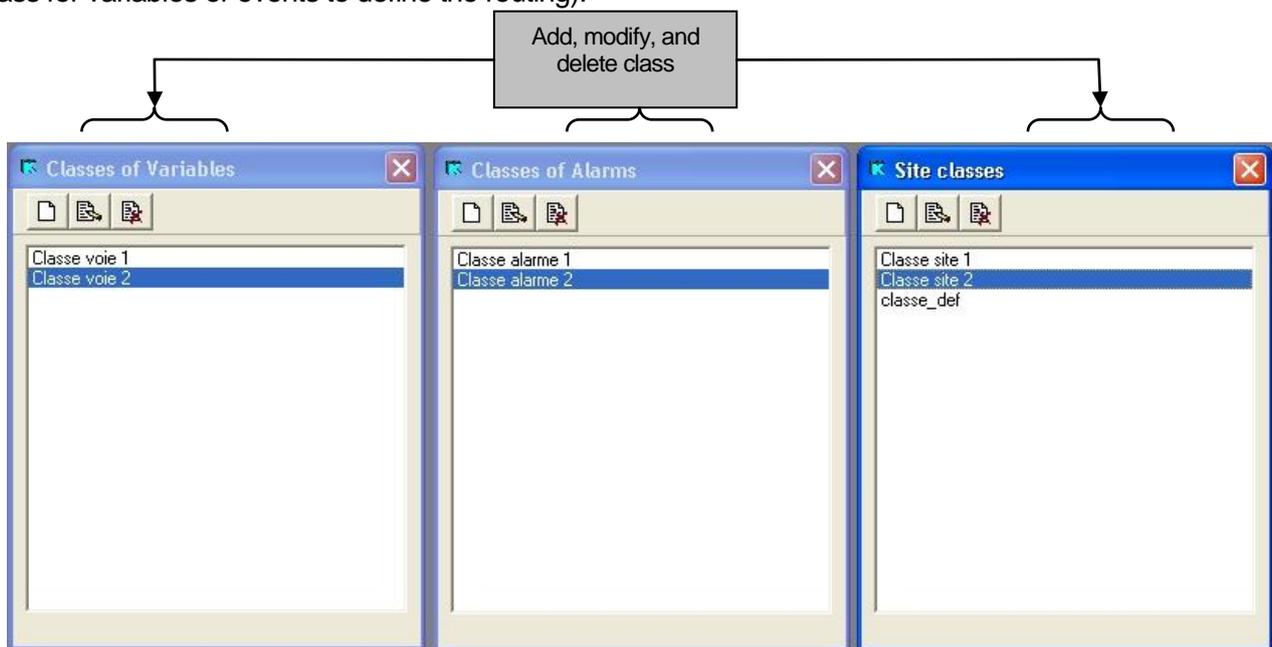
Category form is used to define and set category for variable and file. A category can be used to filter information and create template.

**NOTE:** When receiving information from site (self-configuration ...) category is automatically updated with relevant data.



7.25 CLASS

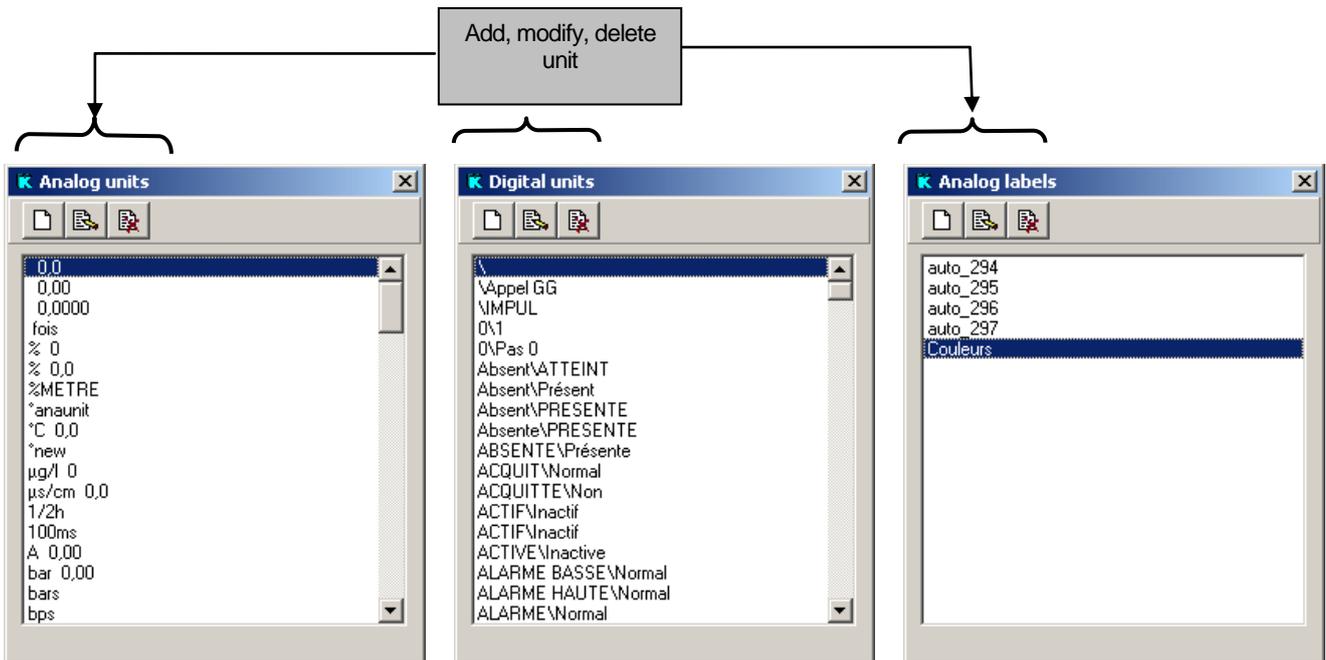
Class form is used to define and set class for variables, alarms and sites. A class can be used to filter information (filter events to display using class from alarms, variables or sites) or set call programme (using class for variables or events to define the routing).



**Note:** When receiving information from site (self-configuration ...) class is automatically updated with new data.

7.26 DIGITAL AND ANALOG UNIT

Define units used for variables.



**Note:** When receiving information from site (self-configuration ...) units are automatically updated with relevant data.

7.26.1 Adding analog unit

Clicking the button  on the analog units form, the form below appears

The "Analog units - Add" dialog box contains the following fields and options:

- Label:** A text box containing "bar".
- Format:** Radio buttons for "Number" (selected) and "Date".
- Decimal precision:** A spin box set to "3".
- Notation options:** Radio buttons for "No exponent" (selected), "Scientific notation", and "Engineering notation".
- Delimiter:** A dropdown menu set to "Windows".
- Buttons:** "OK" and "Cancel" buttons at the bottom.

This form also allows to specify the format of value. Thus we can indicate the number of decimal and the type of exponent.

This format is used to display the value in different windows as well as when manually exporting files.

7.26.2 Add a logical label

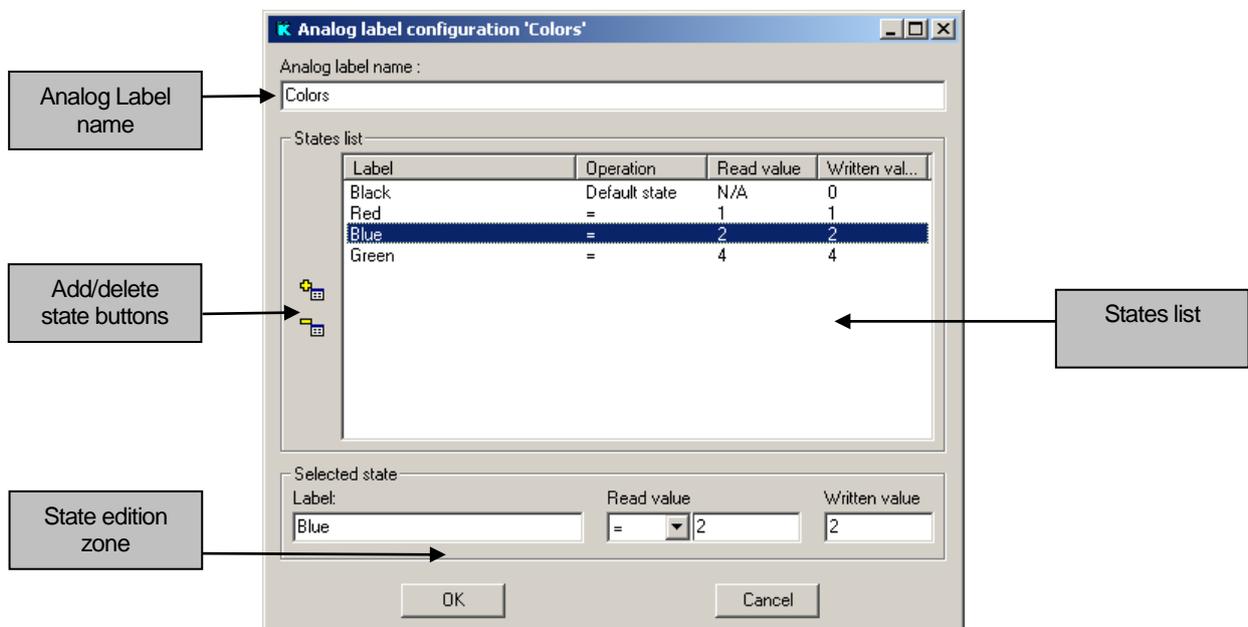
Clicking the button  on the logical unit form, the form below appears:



Adding a logical unit allows setting the label for the value 0 and the label for the value 1

7.26.3 Add an analog label

Clicking the button  on the digital units form, the form below appears:



When adding an analog label, the user is allowed to create states depending on the read value.

The + / - buttons on the left allow to add or delete states.

A state contains 3 elements:

- A label, mandatory, displayed instead of the variable value in the same way than the logical labels.
- An operation/read value pair, mandatory, used to set the condition for the state to be displayed
- A written value, optional, used for variable remote control actions. States without written value won't be available for remote control actions.

A default state is always present in an analog label, it can't be deleted. It will be applied for all the values that don't satisfy the conditions of any other state. This default state doesn't have a read value, but it can have a written value.

The state edition zone allows modifying the parameters of the currently selected state. Any modification in those fields will be mirrored into the modified state after validation by pressing the Enter key.

The available operations are equal, superior, superior or equal. Using those operations, state can define either an interval of values or a single value. In case of conflict between two states ( ex. =4 and >2 ), the equal operation has top priority, followed by the superior and the superior or equal operations.

Two states with different read values may have the same name. In this case, they will be treated as one unique state covering several intervals of values. Such states share the same written value, defined for the first occurrence of the state.

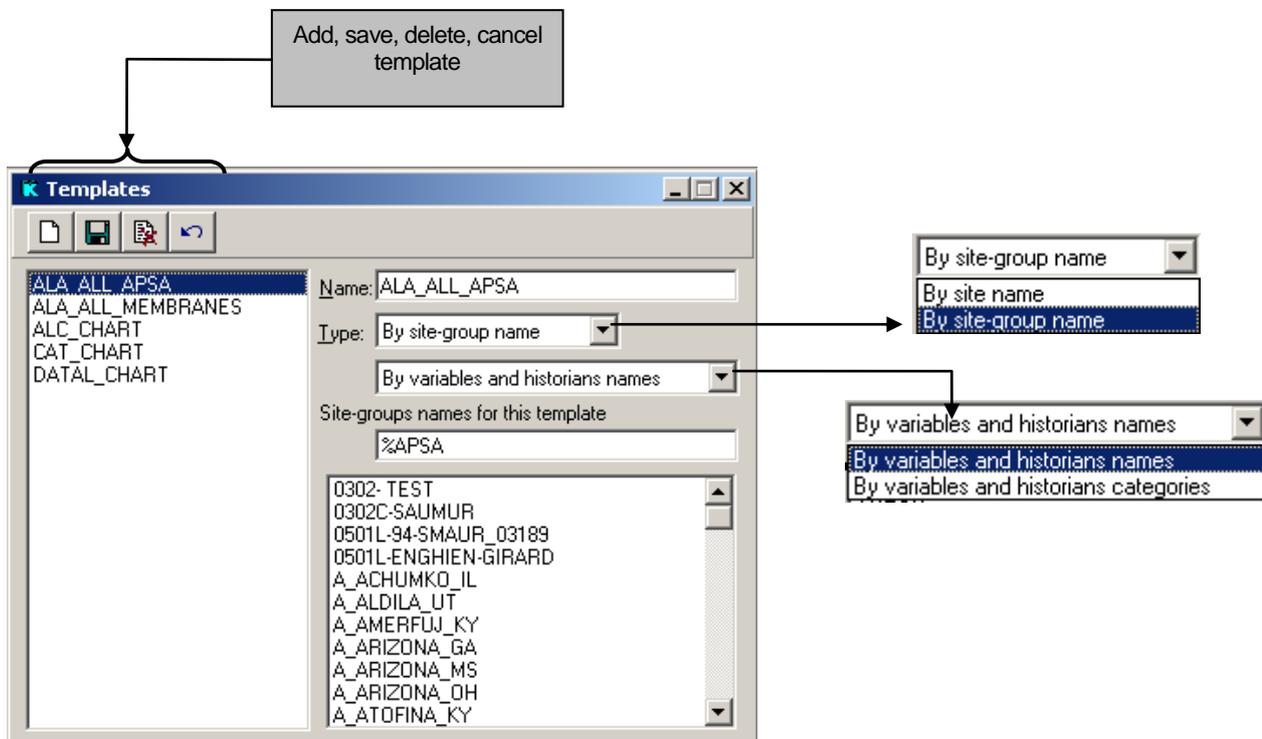
**7.27 TEMPLATES**

This form is used to define type of sites that could be used in filecharter or task scheduler setting. Using template avoids creating as much charts as sites involved or define each site for data transfer (see filecharter and task scheduler parametering). The sites associated to a template are defined by filtering on site-group or site name as well as by variable and historians (file) name or variable and file category; then the site name or site-group name for the template is selected. The selection for the site name or site-group name can contain the % character to replace a string or a single character.

**Example:**

The site names selected for a template is site name starting with AMSA whatever the end of name is. The selection to write is therefore: AMSA%

The action applied to a site belonging to a template will be applied to the complete list of sites if this template is selected.



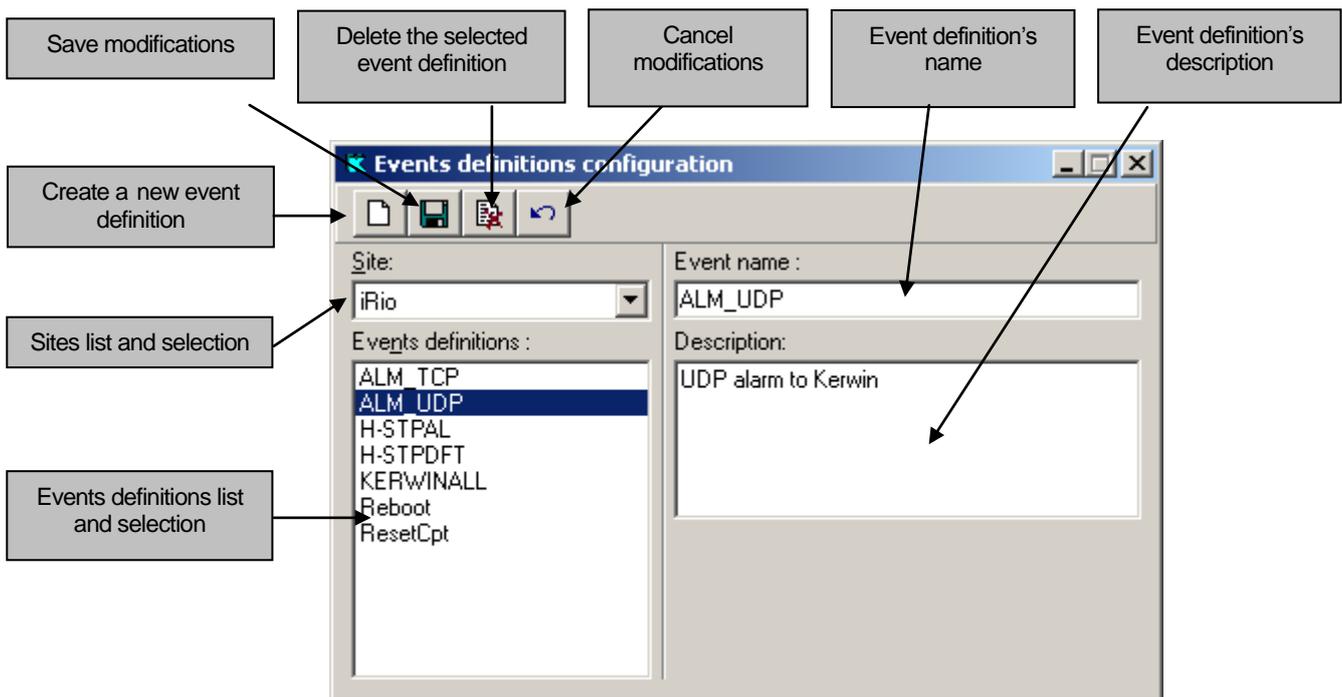
## 7.28 EVENTS DEFINITIONS

This screen is used to declare and configure the different events definitions of a site remotely managed by KERWIN. This operation must usually be carried out, via a [“self configuration request”](#).

Events definitions are available only for xflow sites, and allow obtaining additional informations when receiving an event from the site. They can also be used as a criterion for selecting and sorting the events.

It is useful, however, to be able to modify the parameters of a variable, in particular its name and its unit. You may also want to associate it with a type to use it in a model, and a class to filter events.

Access: Configuration / Events definitions



The configuration zone allows setting the name and the description of the event definition. The name could be displayed in the events listings, and the description contains additional informations that appear in the event's details.

## **8 MAINTENANCE**

### **8.1 DAILY MONITORING**

The operating of a KERWIN master station requires minimum daily monitoring, especially if the alarm functionalities have been implemented and are considered to be critical. However, even for less critical applications such as remote monitoring operations, this daily monitoring should not be neglected; indeed, a fault in communication with a local unit could cause a loss of information and have damaging consequences. This monitoring will relate mainly to the following points:

- Monitoring of cyclical calls, to allow checking that the local units and telephone lines to which they are connected are operating correctly (use of the log and checking of cyclical call fault events),
- Viewing of Active alarms, to check that no alarms have been “forgotten”, or perhaps not transmitted to the alert technician following a problem (configuration error, communication problem, etc),
- Monitoring of file retrievals, as a loss of information may cause serious problems with the processing modules that exploit it (the File Charter module in particular), in terms of technical, or even financial, calculations.

To perform these checks quickly, the Log should be consulted first of all, as this contains most of the useful information.

### **8.2 REGULAR SAVING**

The database must be saved regularly and frequently (around once a week), so that the PC can be restarted correctly following a problem, e.g. an equipment failure requiring the use of backup equipment, or the accidental damaging of the database.

The sequencer should be used to schedule this type of operation.

In any case, it must be made sure that older saves do not saturate the PC's disk(s).

### **8.3 REGULAR PREVENTIVE MAINTENANCE**

Three elements are particularly sensitive on a master station such as KERWIN:

- The PC's hard disk
- Cohabitation with third-party software
- Databases

You are strongly recommended to regularly check the hard disk (once a month, for example) using DEFRAG software (included with Windows XP); this software will check the hard disk's state of fragmentation and make the necessary repairs.

Third-party software must be used with care, as uncontrolled use could in certain cases cause KERWIN to cease functioning.

For these reasons, you are strongly advised to regularly restart the system. These restarts should be carried out as follows:

- “Correctly” exit the KERWIN and other applications
- Exit Windows
- Switch off the PC and the peripherals (modems, printers, etc)
- Restart and check

The following checks at least must be performed before restarting:

- Incoming calls
- Outgoing calls

Particular case of antivirus software: some antivirus software may cause system malfunctions or problems with concurrent accesses to KERWIN's work files, especially if their 'background monitoring' function is activated. It is therefore VITAL to exclude the directories used by KERWIN and the database files from the zones monitored by the antivirus software.

With regard to the database, you are advised to perform regular compactions using the KERWIN sequencer maintenance operation.

You can also perform compaction manually, as follows:

- "Correctly" exit the KERWIN and other application
- Launch the "Measurement database compaction" application, followed by the "System database compaction" application from the Schneider Electric/ Kerwin32 Tools programme group
- Restart and check

**Note:** SQL Express 2005 database is limited to 4 GB of data. MS SQL Server 2005 databases are not limited but may therefore saturate the hard disk.

## 9 INCIDENT RESOLUTION

### 9.1 FAULT ANALYSIS

Operating problems encountered with KERWIN may have several causes:

- Incorrect Windows configuration
- Incorrect KERWIN configuration
- Incorrect local unit configuration
- Incorrect wiring or installation
- Equipment disabled
- KERWIN database damaged

The possible causes of a given problem will depend on several factors:

- First of all, its context: did the problem appear on activation, on a change to the hardware configuration (adding of a modem, etc), or during operation, possibly following a change to the parameters?
- The scope of the problem: is the problem general or does it relate to such and such a local unit or recipient?
- And of course the nature of the problem: is it a problem to do with access to a local unit, an alarm receipt failure, etc?

The aim of the following paragraphs is to guide you in analysing any faults observed with KERWIN, the checks to be made and the solutions required being indicated for each problem.

If these various checks do not solve your problem, please contract Schneider Electric Telecontrol'S customer service department.

### 9.2 COMMUNICATION PROBLEMS

#### 9.2.1 General communication problem

If the problem is general (affects all recipients):

- Check that the communication links are operational; in particular, for telephone links check the correct operating of each line connected to the master station using a telephone
- Check that the communication boards or terminals have been correctly wired and installed (modems, network cards, etc)
- Check that the core communication is correctly configured; to do this, check the configuration of the communication ports in the file KERCOM.INI; to perform this check you must use a text file editor, for example "Notepad" included in Windows' accessories
- Check that the configuration file KERWIN32.CFG is appropriate to your application (cf. [Data server start-up configuration](#)); to perform this check, you must use a text file editor, for example "Notepad" included in Windows' accessories
- Check that the "Comm-links" have been correctly configured and allocated to recipients, local units and others (see Configuration menu – comm.-Links, Sites and call routes items)
- Check that the communication boards or terminals are not disabled. If you have backup equipment, install it on your master station and carry out the necessary tests; otherwise, use other software that uses this equipment, for example Hyperterminal, for telephone modem testing.

**9.2.2 Problem calling a RTU**

- Check that there are no more general problems (see above)
- Check that the local unit or its telephone line are not disabled; to do this, dial the local unit's number using a telephone
- Check that the local unit is correctly configured on KERWIN (see Configuration – Sites menu): call-Link, phone number, Modbus address parameters
- In the case of a call in synoptic mode, check that the Modbus dialogue's parameters (address, etc) are correctly defined on the local unit itself

**9.2.3 Problem receiving alarms from a RTU**

- Call the local unit with the browser; if you experience problems, refer to the relevant paragraph
- Check that the local unit's name and number are correctly configured on KERWIN
- Check that the alert parameters are correctly defined on the local unit: KERWIN's call number, call procedure
- Check that KERWIN's call number is not barred on the local unit or on alert following previous communication failures

**9.2.4 Problem retrieving a RTU's measurements**

- Call the local unit with the browser; if you experience problems, refer to the relevant paragraph
- Check that the file to be retrieved is correctly configured on KERWIN (see Configuration – Files menu); remember that the XModem protocol is required for old TBC models
- Check that the measurement file is correctly parametered on the local unit

**9.2.5 Problem transferring a RTU's configuration**

- Call the local unit with the browser; if you experience problems, refer to the relevant paragraph
- Check that the file is correctly configured on KERWIN (see Configuration – Files menu); remember that the XModem protocol is required for old TBC models
- Check that the access code defined in the parametering of the site on KERWIN indeed corresponds to the maintenance level password defined on the local unit (old TBC model)
- For configuration transfers from KERWIN to the local unit, check that the configuration file has been correctly selected

**9.2.6 Problem calling a call route**

- Check that this is not a general communication problem (see relevant paragraph)
- Check that the recipient's telephone line is not disabled; to do this, dial its call number using a telephone
- Check that the call route is correctly configured on KERWIN (see Configuration– Call routes menu): comm.-Link, protocol, Telephone number, Receiver number (for radio pagers) parameters
- Check that the call program and call procedure associated with this direction have been correctly configured (see Configuration menu: call procedures and programs)
- Check that the call route concerned is not on call alert following communication or acknowledgement failures
- If the call route to be contacted is a hardware (master station, fax, email, etc), check that it is not disabled and that it is correctly configured

### 9.3 CYLICAL CALL FAULTS

In the event of a cyclical call fault:

- Check that this is not a general communication or alarm receipt problem (see relevant paragraphs)
- Check that the cyclical call monitoring by KERWIN is correctly configured (see site parametering: validation and call cycle)
- Check that the cyclical call is correctly configured on the local unit: call cycle and associated alert procedure
- Check that the calling times of the various local units are not too close together for the number of receiving telephone lines available. If necessary, change the scheduling of these calls or increase the tolerance value in the sites' parametering
- Check that the local unit's and KERWIN's clocks are synchronised. In the case of recent Schneider Electric Telecontrol local units, this synchronisation is automatically managed by KERWIN; for other local units, you are advised to set the time defined on KERWIN 5 minutes earlier than the time defined on the local unit (an adequate value must also be set for the tolerance)

**Note:** Also check the accuracy of the PC's clock, as it may become less accurate over time. You are therefore advised to regularly check and adjust this clock, or to synchronise the PC's time with a time server.

### 9.4 SLOW OPERATING OF KERWIN

KERWIN may run abnormally slowly for several reasons:

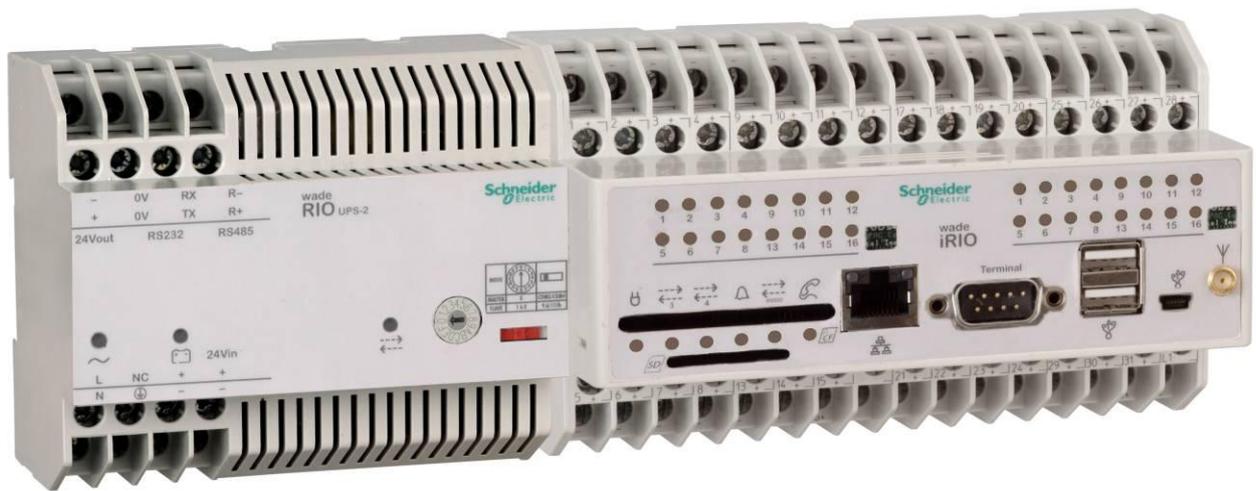
- Simultaneous operating of other software on operations that use a lot of machine time
- An anti-virus checks all KERWIN files
- Long database access times; this phenomenon occurs if the database has not been compacted for a long time (see procedure to be followed in the Regular preventive maintenance paragraph)
- Reaching of the database's maximum capacity. Perform an archiving action
- Hard disk too fragmented; use the defragmentation software included with Windows to repair this problem
- Lack of RAM: Increase the memory of the server
- Hardware problem on the PC, i.e. a damaged disk

### 9.5 KERWIN WON'T OPEN OR SUDDENLY SHUTS DOWN ON OPENING

- Reaching of the database's maximum capacity. Perform an archiving action
- Saturated hard disk. Clean the hard disk. Delete temporary files and compress log files and message files. Transfer from your archives onto tapes or CD-ROMs.
- Modifying of system files while another application is being installed.

# APPENDIX A

## Configuration of an Xflow site



---

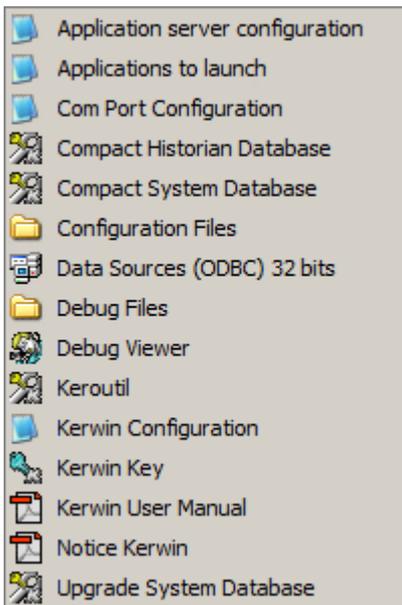
<b>1</b>	<b>METHODOLOGY .....</b>	<b>287</b>
<b>2</b>	<b>SETTING THE PORT PARAMETERS .....</b>	<b>287</b>
2.1	LOCAL PORT.....	287
2.2	REMOTE PORT (PSTN OR GSM MODEM) .....	288
2.3	NET PORT (IP).....	288
2.4	DIRECTION OF COMMUNICATION.....	288
<b>3</b>	<b>LINKS.....</b>	<b>288</b>
3.1	CONFIGURING OUTGOING LINKS.....	288
3.1.1	<i>Local RS232 or 485 link</i> .....	288
3.1.2	<i>Modem link</i> .....	289
3.1.3	<i>IP link</i> .....	289
3.2	CONFIGURING INCOMING LINKS .....	289
3.2.1	<i>Local link</i> .....	289
3.2.2	<i>IP link</i> .....	289
<b>4</b>	<b>CONFIGURING THE SITE .....</b>	<b>290</b>
4.1	INFORMATION REQUIRED .....	290
4.2	AUTOMATIC CONFIGURATION .....	290
4.3	VARIABLES .....	290
4.4	FILES.....	290
4.5	CYCLIC CALL MANAGEMENT.....	291
<b>5</b>	<b>ACCESSING THE SITE VIA THE KERWIN BROWSER.....</b>	<b>292</b>
5.1	CREATING THE RAS ACCESS (WINDOWS XP).....	292
5.2	SECTION [TAPIENTRIES].....	292

## 1 METHODOLOGY

The configuration of an iRio site can be summarised in four steps:

- Setting the port parameters
- Configuring the links
- Retrieving the required information from the site
- Running autoconfiguration

Compliance with these four steps minimises errors and makes links available when the site is configured.



## 2 SETTING THE PORT PARAMETERS

The communication port parameters are set in the kercom.ini and kerwin32.cfg files that can be accessed via the "Kerwin tools" group of programs.

Com Port Configuration opens the kercom.ini file in Windows notepad.

Kerwin Configuration opens the kerwin32.cfg file in Windows notepad.

The type of port and its declaration are configured in the kercom.ini file.

The direction of communication (outgoing, incoming or incoming/outgoing) is declared in the kerwin32.cfg file.

A full description of these files can be found in [section X](#).

The communication ports range from 1 to 255. **Ports 254 and 255 are reserved for the KERVISU application.**

The kercom.ini file configuration parameter used to declare the ports available for Kerwin is as follows:

```
[comm services]
ports=COM1..COM4,COM252,COM253
```

### 2.1 LOCAL PORT

The configuration parameter used to declare a port as local (RS232 or RS485 type) is as follows:

```
[Type]
COM1=local
```





## 2.2 REMOTE PORT (PSTN OR GSM MODEM)

The configuration parameter used to declare a modem on a port is as follows:

```
[Type]
COM3=remote
```



## 2.3 NET PORT (IP)

As the Net ports are unidirectional, at least two have to be declared. The configuration parameter is as follows:

```
[Type]
COM252=Net
COM253=Net
```

By default, Kerwin uses the UDP protocol. For certain applications or restrictions, the TCP protocol can be used. To change the protocol, pass the following parameter in kercom.ini:

```
[COM252]
Prot=TCP
[COM253]
Prot=TCP
```

## 2.4 DIRECTION OF COMMUNICATION

To notify the direction in which the ports communicate, the kerwin32.cfg file configuration parameters are as follows:

```
Alarm Ports=COM3,COM253
Recup Ports=COM1,COM3,COM252
```

In the above example, COM1 and COM252 are only outgoing, COM253 is only incoming and COM3 is incoming/outgoing.

## 3 LINKS

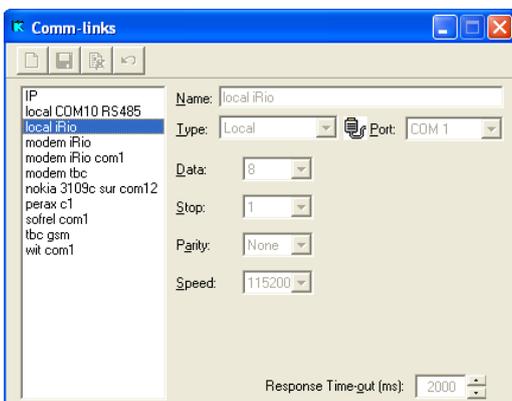
### 3.1 CONFIGURING OUTGOING LINKS

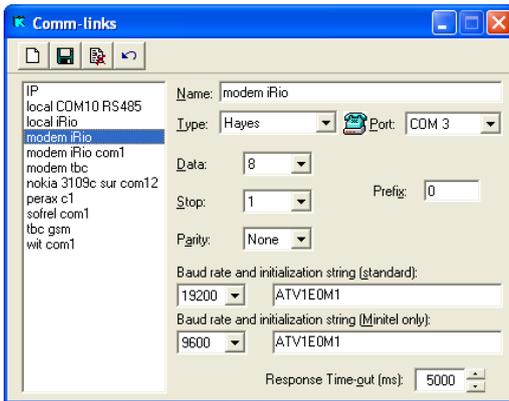
#### 3.1.1 Local RS232 or 485 link

Communication format: 8 bits, 1 stop bit, no parity (8,N,1).  
The speed must be 115200.

The response wait Timeout is 2000 ms.

Use the serial cable provided by Schneider Electric Telecontrol (DB9 female – female) for a point-to-point 232 link.





### 3.1.2 Modem link

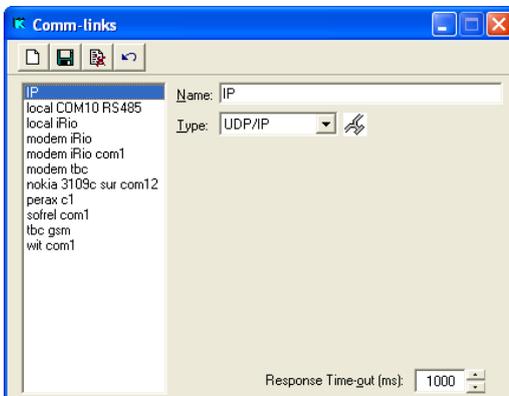
Communication format: 8 bits, 1 stop bit, no parity (8,N,1).

19200 Baud rate in the case of a switched network communication (PSTN), which must be 9600 Baud in the case of a GSM Data network communication.

Simplest possible initialisation string. ATV1E0M1 is common to all manufacturers.

Ignore the line speed and init string for Minitel.

Timeout at 5000 ms.



### 3.1.3 IP link

Type UDP/IP. Use TCP/IP as appropriate (restrictions, closed UDP ports).

The "UDP/IP or TCP/IP" type is not recommended.

## 3.2 CONFIGURING INCOMING LINKS

All the parameters are set in the kercom.ini file.

### 3.2.1 Local link

RS232 (from the iRio Console port) or RS485

[Baudrate]

COM1=115200

### 3.2.2 Modem link

[Baudrate]

COM3=57600

[Initstring]

COM3=V1E0M1

### 3.2.2 IP link

In the case of an IP link, a listening port must be opened. The default port is 32136, but this can be changed:

[COM253]

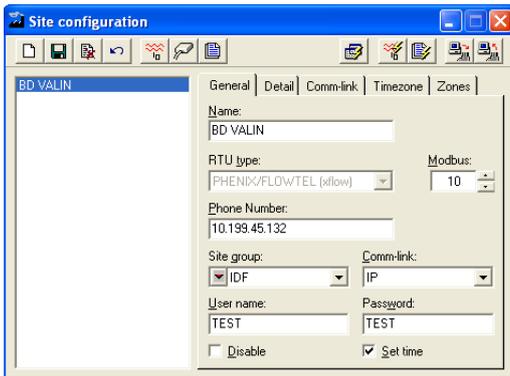
LocalIPPort=32136

## 4 CONFIGURING THE SITE

### 4.1 INFORMATION REQUIRED

Before starting the autoconfiguration process, the following information must be gathered:

- The name of the site as it appears in Xflow. The maximum length of the name is 29.
- The Modbus address (by default 10).
- The telephone number or IP address. In the case of a local link (RS232 or 485), this field will remain blank.
- The user name and the password.



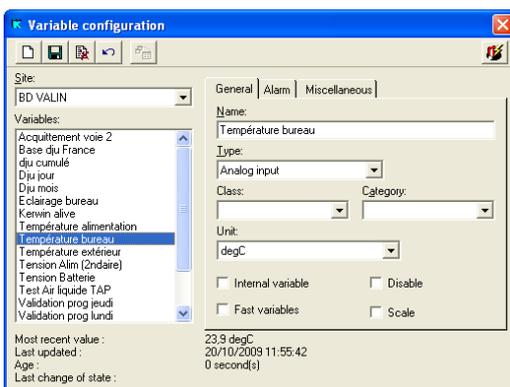
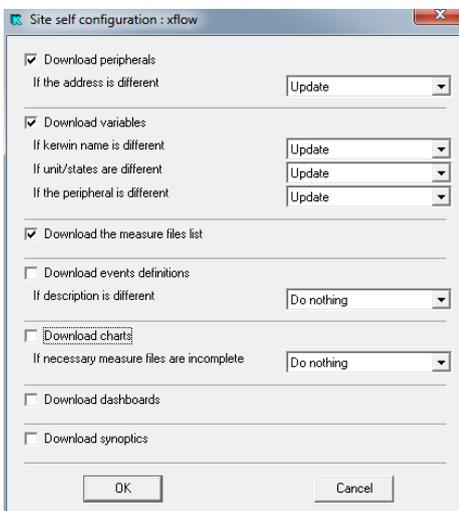
### 4.2 AUTOMATIC CONFIGURATION

In the site configuration window, first select the type "PHENIX/FLOWTEL (Xflow)", and then enter the information collected above.

Select the appropriate link and run automatic configuration. The progress can be followed in the data server.

The result is the creation in Kerwin of all peripherals and variables of the site, the measures files and graphics, definitions of events, synoptic and text pages (accessible Web only) created from XFLOW dashboards.

The user can choose which objects he wants to retrieve, and several options are available to handle special cases (like an already existing object).



### 4.3 VARIABLES

The variables created can be viewed in this window. For each variable created by automatic configuration, the following information is available:

- Name: the name of the variable in Xflow. The name is found in the Miscellaneous tab
- Type: logic or analogue input, logic or analogue output, counter
- Unit: unit defined in Xflow.



### 4.4 FILES

The files are created during the automatic configuration process, but they are empty. You are advised to run an immediate transfer for each file. When data is first entered, the structure of the corresponding file table is determined.

Cyclical calls

Next call  
(local time): 20/10/2009 11:15

Frequency (min): 1440

Tolerance (min): 120

Last call received 19/10/2009 12:23:58

#### 4.5 CYCLIC CALL MANAGEMENT

To use this function, check the cyclic call box in the Detail tab on the Site configuration window.

It is best to configure it first on Xflow and then on Kerwin.

The periodicity must be the same for both Kerwin and Xflow. The tolerance (wait time) must be sufficient. By default, it is 120 minutes.

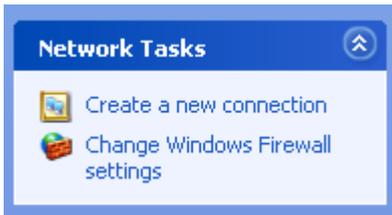
Tip: to ensure that no cyclic calls are missed, bring the date of the next call forward 15 minutes before the date set in Xflow

## 5 ACCESSING THE SITE VIA THE KERWIN BROWSER

Ignore this section if an iRio is connected to the IP link

### 5.1 CREATING THE RAS ACCESS (WINDOWS XP)

Before an RAS (Remote Access Service) access is created, a remote access modem must be installed in Windows.



- In the Network connections menu, select Create a new connection, then click on Next.
- Select Connect to the office network, then click on Next.
- Select Dial-up connection, then click on Next.
- Select the modem to be used for this link. The com port indicated will be used in the Tapientries section of kercom.ini (see section 5.2).
- Enter the name of the link (remote Xflow, for example), then click on Next.
- Enter a telephone number, then click on Next. When the Web is consulted via Kerwin, the latter sends the site number to the RAS access.
- Check Do not use my smartcard, then click on Next.
- Check All users, then click on Next and Finish.
- Enter the user name and the password (by default, TEST and TEST).
- Click on Properties, then on the Network management tab. Leave TCP/IP protocol and QoS Packet Scheduler checked. Uncheck the other components and close the Properties window.

Dial up to test the link.

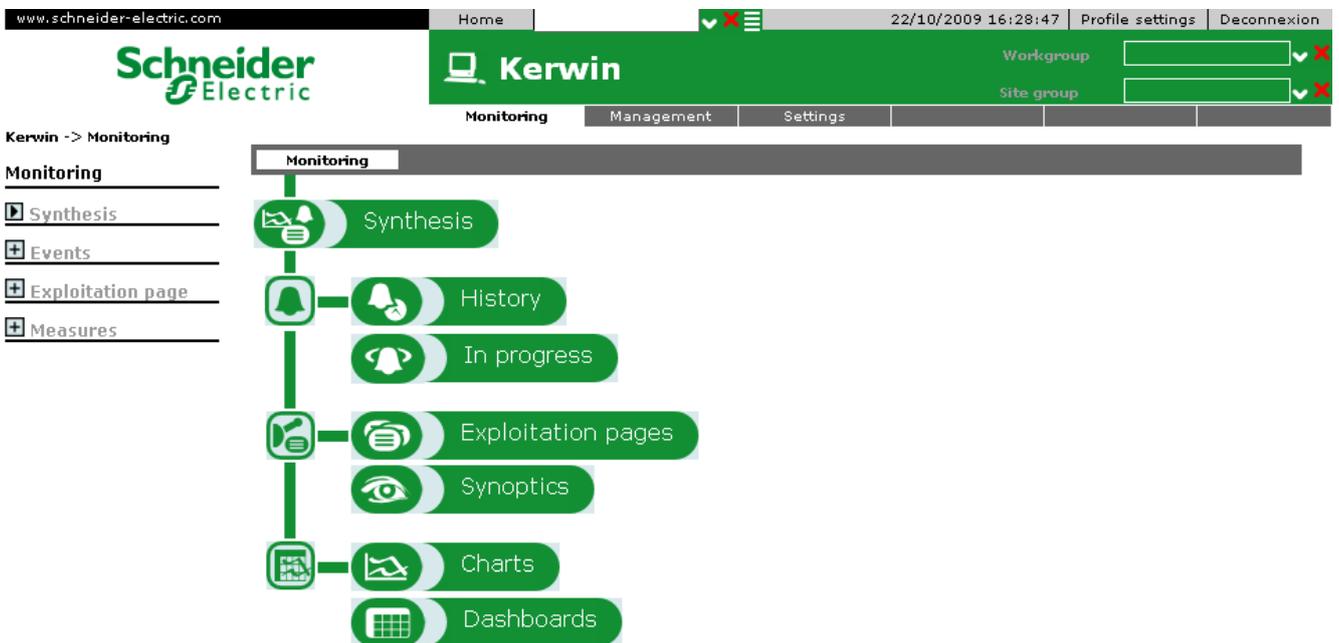
### 5.2 SECTION [TAPIENTRIES]

To declare an RAS access, enter the RAS access name in the kercom.ini file. The configuration parameter to be changed is:

```
[Tapientries]
COM3=remote Xflow
```

# APPENDIX B

Web configuration of an Xflow site



<b>1</b>	<b>METHODOLOGY .....</b>	<b>295</b>
<b>2</b>	<b>SETTING THE PORT PARAMETERS .....</b>	<b>295</b>
<b>3</b>	<b>LINKS.....</b>	<b>295</b>
3.1	CONFIGURING OUTGOING LINKS.....	295
3.1.1	<i>Local RS232 or 485 link.....</i>	295
3.1.2	<i>Modem link.....</i>	295
3.1.3	<i>IP link.....</i>	295
3.2	CONFIGURING INCOMING LINKS .....	296
<b>4</b>	<b>CONFIGURING THE SITE .....</b>	<b>296</b>
4.1	INFORMATION REQUIRED .....	296
4.2	CREATING THE SITE.....	296
4.2.1	<i>Managing cyclic calls.....</i>	297
4.3	AUTOMATIC CONFIGURATION .....	297
4.4	VARIABLES .....	298
4.5	FILES.....	298

## 1 METHODOLOGY

The configuration of an Xflow site can be summarised in four steps

- Setting the port parameters
- Configuring the links
- Retrieving the required information from the site
- Running autoconfiguration

Compliance with these four steps minimises errors and makes links available when the site is configured.

## 2 SETTING THE PORT PARAMETERS

A full description of the port parameter settings can be found in the Kerwin "Configuration of an Xflow site" appendix.

## 3 LINKS

### 3.1 CONFIGURING OUTGOING LINKS

Link details local iRio	
<b>General</b>	
Type :	Local
Communication port used	1
<b>Port parameters</b>	
Records	8
stop	1
parity	Sans
speed	115200
<b>Communication / links</b>	
Modbus timeout	2000

#### 3.1.1 Local RS232 or 485 link

Communication format: 8 bits, 1 stop bit, no parity (8,N,1).  
The speed must be 115200.

The response wait Timeout is 2000 ms.

Use the serial cable provided by SET (DB9 female – female) for a point-to-point 232 link.

Link details modem iRio	
<b>General</b>	
Type :	Hayes
Communication port used	3
Phone prefix	0
<b>Port parameters</b>	
Records	8
stop	1
parity	Sans
speed	19200
Initialization string for the modem	ATV1E0M1
<b>Communication / links</b>	
Modbus timeout	5000

#### 3.1.2 Modem link

Hayes type link.

Communication format: 8 bits, 1 stop bit, no parity (8,N,1).

19200 Baud rate in the case of a switched network communication (PSTN), which must be 9600 Baud in the case of a GSM Data network communication.

Simplest possible initialisation string. ATV1E0M1 is common to all manufacturers.

Timeout at 5000 ms.

Link details IP	
<b>General</b>	
Type :	UDP/IP
<b>Communication / links</b>	
Modbus timeout	1000

#### 3.1.3 IP link

Type UDP/IP. Use TCP/IP as appropriate (restrictions, closed UDP ports).

The "UDP/IP or TCP/IP" type is not recommended.

### 3.2 CONFIGURING INCOMING LINKS

A full description of the parameter settings of the incoming links can be found in the Kerwin "Configuration of an Xflow site" appendix.

## 4 CONFIGURING THE SITE

### 4.1 INFORMATION REQUIRED

Before starting the site autoconfiguration process, the following information must be gathered:

- The name of the site as it appears in Xflow. The maximum length of the name is 29.
- The Modbus address (by default 10).
- The telephone number or IP address. In the case of a local link (RS232 or 485), this field will remain blank.
- The user name and the password.

### 4.2 CREATING THE SITE

On the site configuration page, click on the "Add" icon and select the "PHENIX/FLOWTEL (Xflow)" type. Then enter the information gathered above.



**Adding a new PHENIX/FLOWTEL (xflow) .**

**General**

Name :  Number :

Description :

Out of Service :  Yes  No Modbus address :

**Location**

Site group :  Zone :

Country :  Area :

Time zone :

**Communication / links**

Link :  IP address :

GSM voice number :

Spare link :  Yes  No

IP address :

**Access**

User name :  Password :

**Cyclical call and set time**

Set time :  Yes  No Cyclical call :  Yes  No

Synchro GMT :  Yes  No Period :  minutes

Tolerance : +  minutes

Next call (dd/mm/yyyy hh:mm:ss) :

**4.2.1 Managing cyclic calls**

To manage the cyclic calls, check the "Yes" box on the "cyclic call" line.  
It is recommended to configure it first on Xflow and then on Kerwin.

The periodicity must be the same for both Kerwin and Xflow.  
The tolerance (wait time) must be sufficient. By default, it is 120 minutes.

Tip: to ensure that no cyclic calls are missed, bring the date of the next call forward 15 minutes before the date set in Xflow.

**4.3 AUTOMATIC CONFIGURATION**

When all the fields have been entered, click on "Create this new site".

Then click on the "Autoconfiguration" icon.

**RTU details BD VALIN**

A call is **In progress** to this RTU

**General**

Type : PHENIX/FLOWTEL (xflow)      Identification : Modbus address : 10

**Description**

**Location**

Site group : IDF      Zone :  
Country :      Area :  
Time zone :      Synchro GMT :

**Communication / links**

Link : IP (UDP/IP)      Self-configuration

Self-configuration : 21/10/2009 17:21:58 - Succès  
Last call : 22/10/2009 16:40:56.000 - Succès      IP address : 10.199.45.132  
GSM voice number :

**Access**

User name : TEST      Password : TEST

**Cyclical call and set time**

Set time :  
Cyclical call :

**Cyclical call alarm settings**

Period : 1440 min (+ 120 min)      Cyclical call Ok  
Last call : 22/10/2009 12:15:54      Cyclical call no managed  
Next call : 23/10/2009 11:15:00      Cyclical call alarm

This creates all the site variables in Kerweb and the measurement files.

## 4.4 VARIABLES

The variables created can be consulted from this page. For each variable created by automatic configuration, the following information is available:

- Name: the name of the variable in Xflow.
- Type: logic or analogue input, logic or analogue output, counter.
- Value: last value read.

Variables		
Name	Type	Value
Acquittement voie 2	Digital output	N
Base dju France	Analog output	18,0
dju cumulé	Analog input	1550,5
Dju jour	Analog input	1,0
Dju mois	Analog input	1450,8
Eclairage bureau	Digital output	on
Kerwin alive	Analog output	1259,0
Pompe 1	Digital input	arret
Température alimentation	Analog input	38,6 degC
Température bureau cyrille	Analog input	25,0 degC

1 - 10 / 20

To obtain more detailed information, click on the name of the variable.

## 4.5 FILES

The files are created during the automatic configuration process, but they are empty. When data is first entered, the structure of the corresponding file table is determined.

Files		
Nom	Type	Last read
MESURE	Historical	22/10/2009 16:40:56
DJUU	Historical	22/10/2009 16:40:51
DJUM	Historical	29/09/2009 16:45:00
ALARME	Alarm/Event	22/07/2009 17:04:30
Configuration	Raw config	

Clicking on the file name gives a more detailed display, with, for example, the number of records, the date of the last reading, etc...

# APPENDIX C

Configuration of a Wade site  
W315 / W320E / W325



<b>1</b>	<b>METHODOLOGY .....</b>	<b>301</b>
<b>2</b>	<b>SETTING THE PORT PARAMETERS .....</b>	<b>301</b>
2.1	REMOTE PORT (PSTN OR GSM MODEM) .....	301
2.2	NET PORT (IP) .....	302
2.3	DIRECTION OF COMMUNICATION .....	302
<b>3</b>	<b>LINKS.....</b>	<b>302</b>
3.1	CONFIGURING OUTGOING LINKS .....	302
3.1.1	<i>Modem link</i> .....	302
3.1.2	<i>IP link</i> .....	303
3.2	CONFIGURING INCOMING LINKS .....	303
3.2.1	<i>Modem link</i> .....	303
3.2.2	<i>IP link</i> .....	303
<b>4</b>	<b>CONFIGURING THE SITE .....</b>	<b>304</b>
4.1	CONFIGURING THE W3XX .....	304
4.1.1	<i>Event format</i> .....	304
4.2	INFORMATION REQUIRED .....	304
4.2.1	<i>Retrieving the configuration file</i> .....	305
4.3	AUTOMATIC CONFIGURATION .....	305
4.4	VARIABLES .....	306
4.5	FILES.....	307
<b>5</b>	<b>ACCESSING THE SITE VIA THE KERWIN BROWSER.....</b>	<b>308</b>
5.1	CREATING THE RAS ACCESS (WINDOWS XP).....	308
5.2	SECTION [TAPIENTRIES].....	308

## 1 METHODOLOGY

The configuration of a W@de site can be summarised in five steps:

- 1- Setting the port parameters
- 2- Configuring the links
- 3- Retrieving the required information from the site
- 4- Exporting the configuration
- 5- Autoconfiguring by analysing the configuration

Compliance with these five steps minimises errors and makes links available when the site is configured.

## 2 SETTING THE PORT PARAMETERS

The communication port parameters are set in the kercom.ini and kerwin32.cfg files that can be accessed from the "Kerwin tools" set of programs.

Com Port Configuration opens the kercom.ini file in Windows notepad.

Kerwin Configuration opens the kerwin32.cfg file in Windows notepad.

The type of port and its declaration are configured in the kercom.ini file.

The direction of communication (outgoing, incoming or incoming/outgoing) is declared in the kerwin32.cfg file.

A full description of these files can be found in [section X](#).

The communication ports range from 1 to 255. **Ports 254 and 255 are reserved for the KERVISU application.**

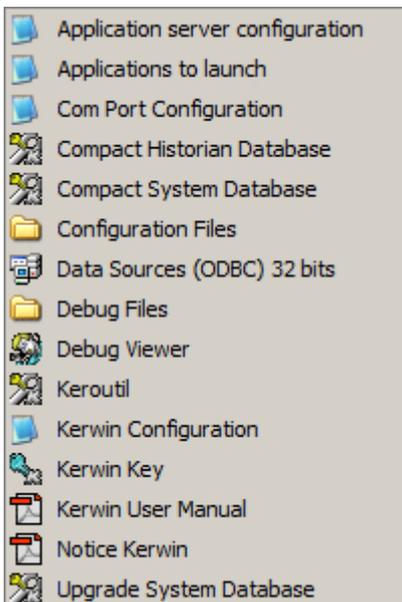
The kercom.ini file configuration parameter used to declare the ports available for Kerwin is as follows:

```
[comm services]
ports=COM1..COM4,COM252,COM253
```

### 2.1 REMOTE PORT (PSTN OR GSM MODEM)

The configuration parameter used to declare a modem on a port is as follows:

```
[Type]
COM3=remote
```



## 2.2 NET PORT (IP)

The Net ports are unidirectional. At least two will therefore have to be declared. The configuration parameter is as follows:

```
[Type]
COM250=Net
COM251=Net
```

The W@de uses only the TCP port. Pass the following parameters:

```
[COM250]
Prot=TCP
[COM251]
Prot=TCP
```

The [COMxxx] section and the "Prot= " line must be created.



## 2.3 DIRECTION OF COMMUNICATION

To notify the direction in which the ports communicate, the kerwin32.cfg file configuration parameters are as follows:

```
Alarm Ports=COM3,COM251
Recup Ports=COM1,COM3,COM250
```

In the above example, COM1 and COM250 are only outgoing, COM251 is only incoming and COM3 is incoming/outgoing.

## 3 LINKS

### 3.1 CONFIGURING OUTGOING LINKS

#### 3.1.1 Modem link

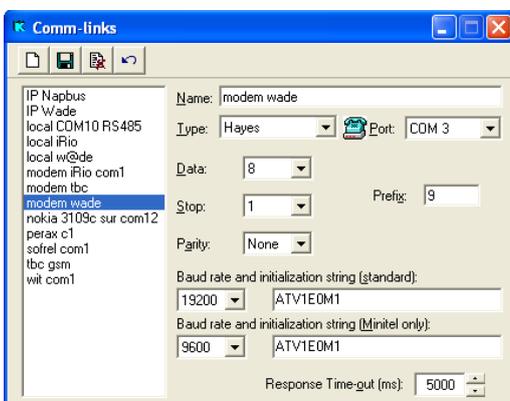
Communication format: 8 bits, 1 stop bit, no parity (8,N,1)

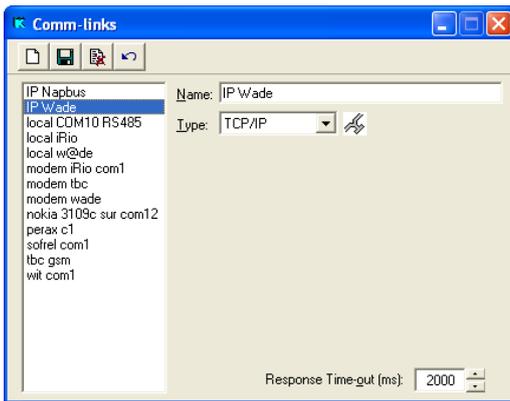
19200 Baud rate in the case of a switched network communication (PSTN), which must be 9600 Baud in the case of a GSM Data network communication.

Simplest possible initialisation string. ATV1E0M1 is common to all manufacturers.

Ignore the line speed and init string for Minitel.

Timeout at 5000 ms.





### 3.1.2 IP link

Type TCP/IP. The address **MUST** be followed by the TCP port.

e.g.: 10.199.179.93 :502

When a connection is established, Kerwin will automatically detect the port(s) declared in TCP (see section 2.2).

If no port is configured as TCP, the error message in the kerman log will be as follows:

"[site], [file requested], invalid port. Check the port configuration in kercom".

## 3.2 CONFIGURING INCOMING LINKS

All the parameters are set in the kercom.ini file.

### 3.2.1 Modem link

```
[Baudrate]
COM3=57600
```

```
[Initstring]
COM3=V1E0M1
```

### 3.2.2 IP link

In the case of an IP link, a TCP listening port must be opened:

```
[COM253]
LocalIPPort=502
```

## 4 CONFIGURING THE SITE

### 4.1 CONFIGURING THE W3XX

To ensure that the W3xx works correctly with Kerwin, several parameters must be checked in the "Parameter setting/protocol" menu:

Command type	Selection and execution ▾
Select word address	256
Send Exception if undeclared address	No ▾

- In the "Command type" field, select "Direct" or "Select and Execute"
- If "Select and Execute" has been selected, enter a value, (by default 256), in the "Selection word address" field
- "Exception if item undeclared" MUST be set to NO.

#### 4.1.1 Event format

Event Configuration					
Table 1	Type: Standard ▾	Time Format: Type STD (2 words) ▾	Address: 15	Length: 23	
Table 2	Type: Standard ▾	Time Format: Type STD (2 words) ▾	Address: 0	Length: 4	

The Modbus 2 protocol (timestamped Modbus) is "destructive", i.e. the data read by Kerwin is deleted from the W3xx to make room for the next data.

That is why there are two event areas. The W3xx can be used with two different Scada systems.

The event area address defines the beginning of the memory area used to store the events. The size of this area is given by the length field.

WARNING: the address of the second area must be calculated in such a way that two areas do not overlap.

### 4.2 INFORMATION REQUIRED

Before starting the site autoconfiguration process, the following information must be gathered:

- The name of the site. It must be less than or equal to 16 characters.
- The Modbus address (by default 100).
- The telephone number or IP address.
- The address of the event area (by default 15).
- The address of the selection word: "-" in the case of a direct type command, "256" in the case of a "Select and Execute" command.

**4.2.1 Retrieving the configuration file**

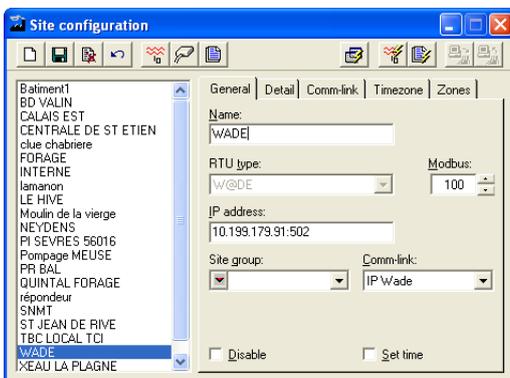
When a W@de site is configured in Kerwin, the configuration file must be retrieved:

- Establish a connection to the W3xx
- Enter the login adm and the password adm on the embedded Web server
- Select "Backup/Restore" in the "Maintenance\Configuration" menu
- Select "Save the configuration to a PC"
- Save the zip file (for example, wade.zip) in the Kerwin "config" directory
- Exit the Web interface
- Use a zip compatible software to extract the settings.txt file to the same directory.

**4.3 AUTOMATIC CONFIGURATION**

In the site configuration window, create a new site and select the "W@DE" type, then the name of the site, the Modbus address, the IP address or the telephone number and a link.

In the case of a GPRS link, check "Upgrade IP address on incoming link" in the Link tab.



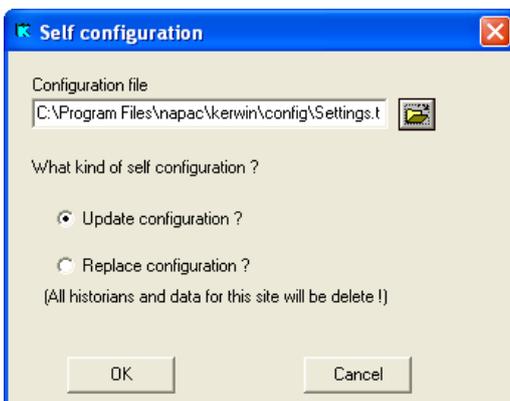
Address of the events zone :

Address of the selection word :

In the Detail tab, enter the address of the event zone and the address of the selection word.

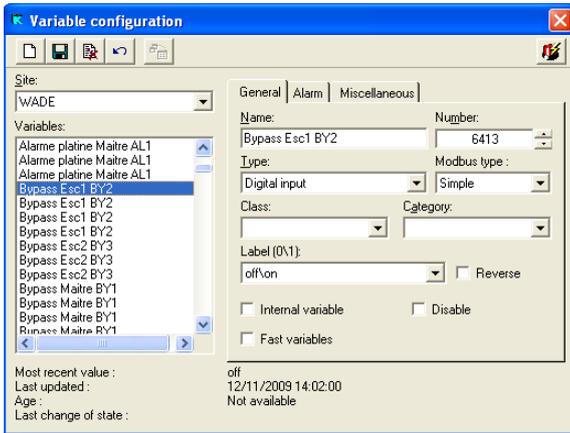


Save the site and click on the Automatic configuration icon.



In the "Automatic configuration" window, select the setting.txt file in the Kerwin "config" directory and check "Update existing configuration?". Then click on "Ok".

The configuration file analysis results in the creation of all the site variables in Kerwin.



## 4.4 VARIABLES

The variables created can be viewed in this window. For each variable created by automatic configuration, the following information is available:

- Name: name of the variable in the W3xx.
- Number: address of the variable in the W3xx. To add an analogue variable or a counter manually, enter the value read directly in the address column of the W3xx.

In the case of a logic variable, a "bit in the word" address must be converted into a bit address.

The address in the W3xx gives the value of the word and the position of the bit.

The conversion involves multiplying the word address by 16 and adding the position of the bit.

Example: for a variable with the address "302,9", enter "4841" ( $302 \times 16 + 9$ ) in the Number field.

- Type: logic or analogue input, logic or analogue output, counter.
- Format:  
single or double for logic inputs/outputs  
word32 for counters  
ieee32, int16 or int32 for analogue inputs/outputs  
l/h for the least significant bit first (int32 & ieee32)  
h/l for the most significant bit first (int32 & ieee32)
- Unit: unit defined in the W3xx.
- 

**WARNING:** the alarm logic is as follows:

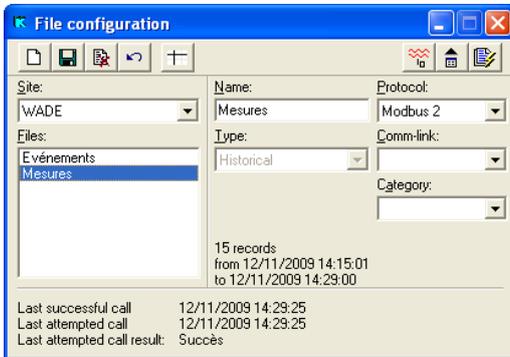
- 1 = Alarm
- 0 = Return to normal

The reverse logic is not working.

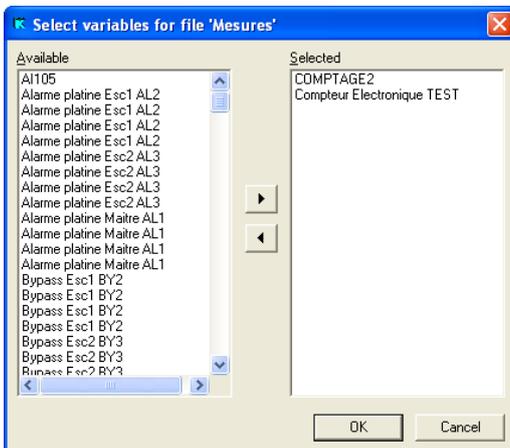


### 4.5 FILES

When the site is created, a "measurement" file is created by default. It is not recommended to run a transfer immediately.



The variables configured with "event" type periodic processing in the W3xx must be added to the Kerwin file manually.



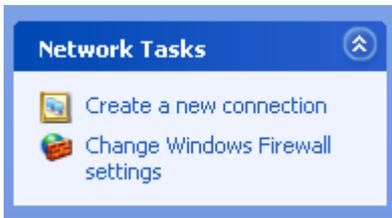
From the "Select channels" window, choose the variables available in the left-hand column and click on the right-hand arrow to switch them to the right-hand "Selected" column.

When this operation is complete, an immediate transfer can be run.

When data is first entered, the structure of the corresponding file table is determined.

It is advisable to group the variables saved at the same frequency in the same files in Kerwin.

The files must be created manually and the desired variables added.



## 5 ACCESSING THE SITE VIA THE KERWIN BROWSER

In the case of a TCP/IP link, the Kerwin browser will connect to the W3xx directly.

### 5.1 CREATING THE RAS ACCESS (WINDOWS XP)

Before an RAS (Remote Access Service) access is created, a remote access modem must be installed in Windows.

- In the Network connections menu, select Create a new connection, then click on Next.
- Select Connect to the office network, then click on Next.
- Select Dial-up connection, then click on Next.
- Select the modem to be used for this link. The com port indicated will be used in the Tapientries section of kercom.ini (see section 5.2).
- Enter the name of the link (remote Wade, for example), then click on Next.
- Enter a telephone number, then click on Next. When the Web is consulted via Kerwin, the latter sends the site number to the RAS access.
- Check Do not use my smartcard, then click on Next.
- Check All users, then click on Next and Finish.
- There is no need to give the user name and login password.
- Click on Properties, then on the Network management tab. Leave TCP/IP protocol and QoS Packet Scheduler checked. Uncheck the other components and close the Properties window.

Dial up to test the link.

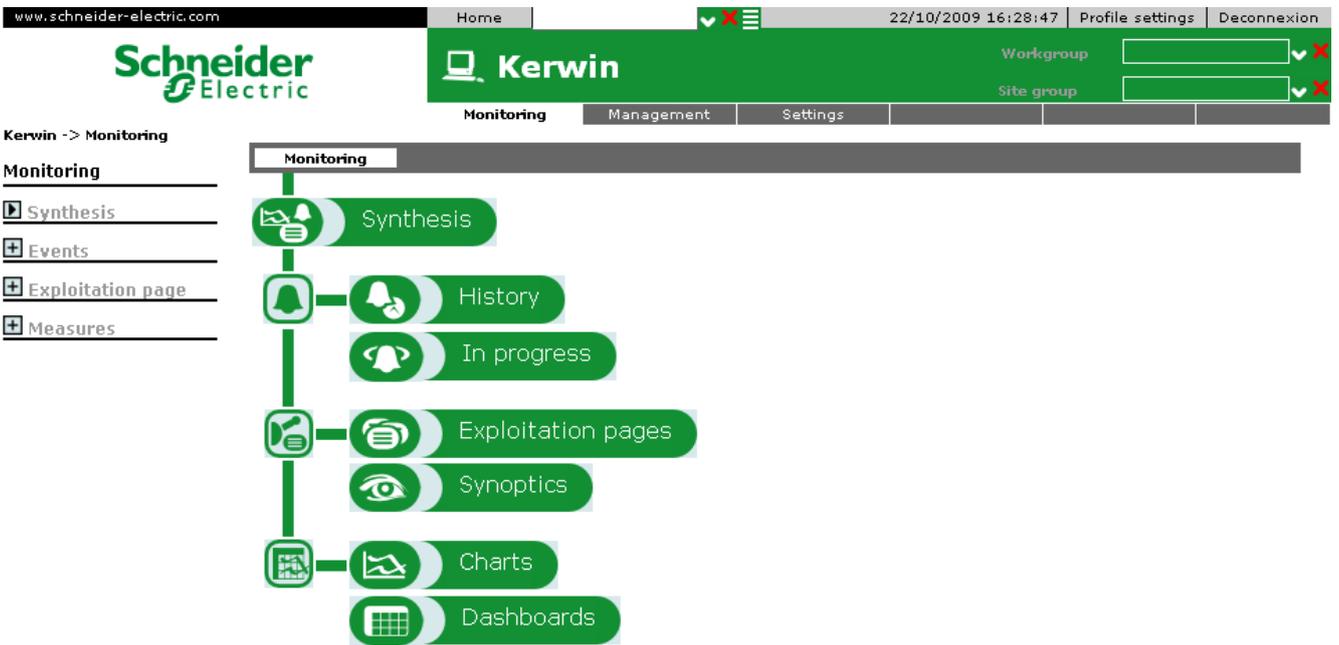
### 5.2 SECTION [TAPIENTRIES]

To declare an RAS access, enter the RAS access name in the kercom.ini file. The configuration parameter to be changed is:

```
[Tapientries]
COM3=remote Wade
```

# APPENDIX D

Web configuration of a W@de site  
W315 / W320E / W325



<b>1</b>	<b>FOREWORD .....</b>	<b>311</b>
<b>2</b>	<b>METHODOLOGY .....</b>	<b>311</b>
<b>3</b>	<b>SETTING THE PORT PARAMETERS .....</b>	<b>311</b>
<b>4</b>	<b>LINKS.....</b>	<b>311</b>
4.1	CONFIGURING OUTGOING LINKS.....	311
4.1.1	<i>Modem link</i> .....	311
4.1.2	<i>IP link</i> .....	312
4.2	CONFIGURING INCOMING LINKS .....	312
<b>5</b>	<b>CONFIGURING THE SITE .....</b>	<b>312</b>
5.1	CONFIGURING THE W3XX .....	312
5.1.1	<i>Event format</i> .....	312
5.2	INFORMATION REQUIRED .....	313
5.3	CREATING THE W3XX SITE.....	313
5.4	VARIABLES .....	313
5.5	FILES.....	315



## 1 FOREWORD

As Kerweb2 cannot download files, the automatic configuration function via file analysis is not operational. The variables have to be added one by one from the variables creation page.

## 2 METHODOLOGY

The configuration of a W3xx site can be summarised in five steps

- 1- Setting the port parameters
- 2- Configuring the links
- 3- Retrieving the required information from the site
- 4- Creating the variables
- 5- Creating the files

Compliance with these five steps minimises errors and makes links available when the site is configured.

## 3 SETTING THE PORT PARAMETERS

A full description of the port parameter settings can be found in the Kerwin "Configuration of a W@de site" appendix

## 4 LINKS

### 4.1 CONFIGURING OUTGOING LINKS

To access the link configuration, click on the Parameter settings menu, then on Link.

#### 4.1.1 Modem link

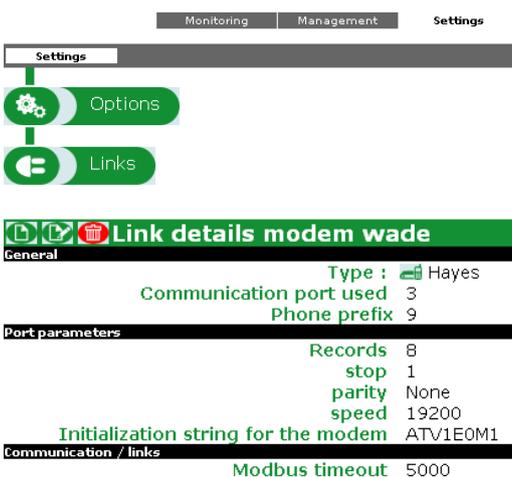
Hayes type link.

Communication format: 8 bits, 1 stop bit, no parity (8,N,1).

19200 Baud rate in the case of a switched network communication (PSTN), which must be 9600 Baud in the case of a GSM Data network communication.

Simplest possible initialisation string. ATV1E0M1 is common to all manufacturers.

Timeout at 5000 ms.





### 4.1.2 IP link

Type TCP/IP. The address MUST be followed by the TCP port.

Example: 10.199.179.93:502

When a connection is established, Kerwin will automatically detect the port(s) declared in TCP.

## 4.2 CONFIGURING INCOMING LINKS

A full description of the parameter settings of the incoming links can be found in the Kerwin "Configuration of a W@de site" appendix.

## 5 CONFIGURING THE SITE

### 5.1 CONFIGURING THE W3XX



To ensure that the W3xx works correctly with Kerwin/Kerweb, several parameters must be checked in the "Parameter setting/protocol" menu:

- In the "Command type" field, select "Direct" or "Select and Execute"
- If "Select and Execute" has been selected, enter a value, (by default 256), in the "Selection word address" field
- "Exception if item undeclared" MUST be set to NO.

#### 5.1.1 Event format

Event Configuration				
Table 1	Type: Standard	Time Format: Type STD (2 words)	Address: 15	Length: 23
Table 2	Type: Standard	Time Format: Type STD (2 words)	Address: 0	Length: 4

The Modbus 2 protocol (timestamped Modbus) is "destructive", i.e. the data read by Kerwin is deleted from the W3xx to make room for the next data.

That is why there are two event areas. The W3xx can be used with two different Scada systems.

The event area address defines the beginning of the memory area used to store the events. The size of this area is given by the length field.

WARNING: the address of the second area must be calculated in such a way that two areas do not overlap.

Monitoring Management Settings

Create a RTU from type :

- AQUAPAC**
- Barton**
  - BARTON
  - BRIO
  - 123 COMPTEUR JAUNE
  - 123 COMPTEUR VERT
- Datam**
  - DATAM
  - Double MUC5
  - FLOWTEL-VISECO
  - HERMES
  - INTERNAL
  - f(x) KERWIN
  - MUC4
  - MUC5 / MUC9
- Perax**
  - PERAX
  - PHENIX/FLOWTEL (xflow)
- Radcom**
  - RADCOM
- SOFREL**
  - SOFREL
- TBC-F**
  - TBC-FLOWTEL
- Teleflo**
  - TELEFLO
- TL04**
  - TL04
- VIRTUAL**
  - VIRTUAL
- VISECO**
  - VISECO
- Voice mail**
  - Voice mail
- W@DE**
  - W@DE
- WIT**
  - WIT

### 5.2 INFORMATION REQUIRED

Before the site can be configured, the following information must be gathered:

- The name of the site. It must be less than or equal to 16 characters.
- The Modbus address (by default 100)
- The telephone number or IP address
- The address of the event area (by default 15)
- The address of the selection word: "-" in the case of a "direct" type command, "256" in the case of a "Select and Execute" command.

### 5.3 CREATING THE W3XX SITE

Click on the "Management" menu, then on the "site" link. Click on the "Add a site" button and select "W@de" as the type.

Enter the name of the site (up to 16 characters), the Modbus address, the IP address (followed by the TCP port 502) or the telephone number and a link. Also enter the address of the event area and the address of the selection word.

Then click on the "Create this new site" button.

**Add a variable for WADE**

- Meter
- Analog input
- Digital input
- Digital output
- Analog output

### 5.4 VARIABLES

As described in the foreword, the variables have to be created via the Web interface.

From the site management menu, click on the "Site variables" link, then on the "Add" icon.

In the "Add a variable for WADE" menu, select the type of variable to be created: analogue or logic input, analogue or logic output, counter.

**Add a variable Analog input for the RTU WADE .**

**General**

Name Power  
 Transmitted name Power  
 Number 501  
 Unit Wh  
 Format Int32 (h/l) Out of Service  Yes  No

**Management**

Class Category

**Alarms**

Call program Event Severity  
 Event class Event level

**Miscellaneous**

Min Threshold 0 Max Threshold 0  
 Conversion / scaling  Yes  No  
 OPC Publishing  No  Yes  
 Preserve original data  No  Yes

**Internal variable**  Yes  No

Create this new variable Cancel and return

Settings

Type	Address
	↑↓
DDO1	880,1
DDO2	880,8
DDO3	-
DO37	880,7
DO39	880,3
DO40	880,4
DO41	880,5
DO42	880,6
TSL1	611,0
TSL69	-
AI93	500
AI105	851
AI106	-
AO94	836

Enter the following information:

- Name: name of the variable in the W3xx
- Number: address of the variable in the W3xx. For an analogue variable or a counter, enter the value read directly in the W3xx address column. In the case of a logic variable, a "bit in the word" address has to be converted into a bit address. The address in the W3xx gives the value of the word and the position of the bit in the word. The conversion involves multiplying the word address by 16 and adding the position of the bit. Example: for a variable with the address "302,9", enter "4841" (302\*16+9) in the Number field.
- Unit: unit of the variable
- Format:
  - single or double for logic inputs/outputs
  - word32 for counters
  - ieee32, int16 or int32 for analogue inputs/outputs.
  - l/h for the least significant bit first (int32 & ieee32)
  - h/l for the most significant bit first (int32 & ieee32)

Then click on the "Create this new variable" button.

WARNING: the alarm logic is as follows:

- 1 = Alarm
- 0 = Return to normal

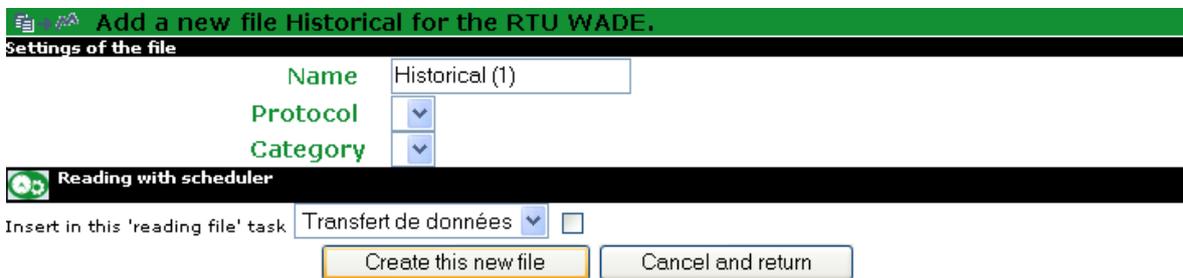


### 5.5 FILES

When the site is created, a "measurement" file is created by default. It is not recommended to run a transfer immediately.

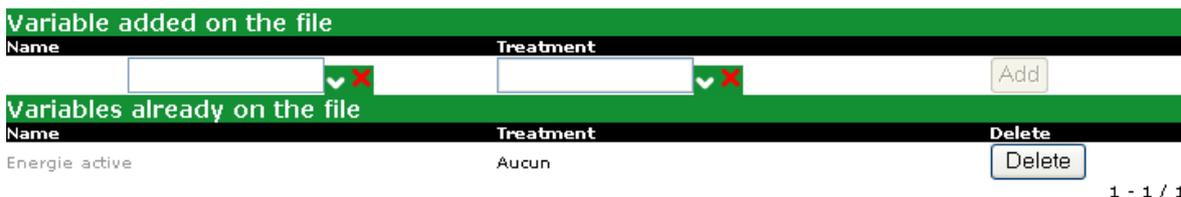
The variables configured with "event" type periodic processing in the W3xx must be added to the Kerwin/Kerweb files that were created manually.

In the site management menu, click on the "Site files" link. Then click on the "Add" icon and select the "Measurement" type file.



- In the "Name" field, enter the file name.
- Modbus 2 MUST be selected in the "Protocol" field.

Then click on the "Create this new file" button.



In the "Variables to be added to the file" area, select the channel to be stored in the drop-down menu and choose "None" from the processing menu. The "Add" button will then be active. Click on the button and add a new variable or close this window.

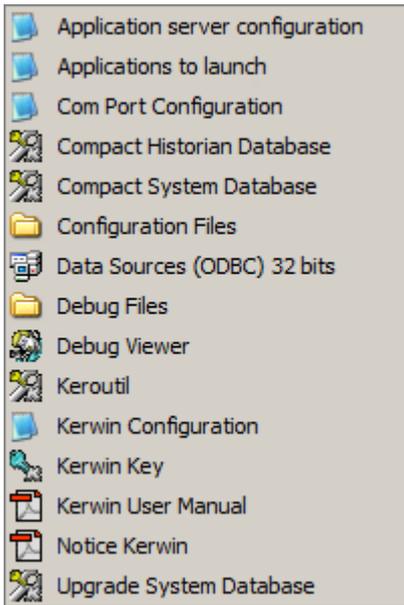
Then start an immediate transfer to generate the table in the Kerwin database.

# APPENDIX E

Configuration of a W310/Brio site



<b>1</b>	<b>SETTING THE PORT PARAMETERS.....</b>	<b>318</b>
1.1	REMOTE PORT (GSM MODEM) .....	318
1.2	DIRECTION OF COMMUNICATION.....	318
<b>2</b>	<b>LINKS.....</b>	<b>319</b>
2.1	CONFIGURING INCOMING LINKS .....	319
2.1.1	Modem link.....	319
<b>3</b>	<b>CONFIGURING THE SITE .....</b>	<b>319</b>
3.1	INFORMATION REQUIRED .....	319
3.2	AUTOMATIC CONFIGURATION .....	319
3.3	CONFIGURING A W310 SITE MANUALLY .....	320
3.3.1	General tab.....	320
3.3.2	Detail tab.....	320
<b>4</b>	<b>USEFUL HAYES COMMANDS .....</b>	<b>321</b>
4.1	HYPERTERMINAL.....	321
4.2	AT COMMANDS .....	321
4.2.1	Managing the PIN code.....	321
4.2.2	Operator and signal test.....	321
4.2.3	SMS transmission test.....	322
4.2.4	Managing the modem.....	322



## 1 SETTING THE PORT PARAMETERS

The communication port parameters are set in the kercom.ini and kerwin32.cfg files that can be accessed from the "Kerwin tools32" set of programs.

COM Port Configuration opens the kercom.ini file in Windows notepad.

Kerwin Configuration opens the kerwin32.cfg file in Windows notepad.

The type of port and its declaration are configured in the kercom.ini file.

The direction of communication (outgoing, incoming or incoming/outgoing) is declared in the kerwin32.cfg file.

A full description of these files can be found in [section X](#).

The communication ports range from 1 to 255. **Port 255 is reserved for the kervisu application.**

The kercom.ini file configuration parameter used to declare the ports available for Kerwin is as follows:

```
[comm services]
ports=COM1..COM4,COM252,COM253
```

### 1.1 REMOTE PORT (GSM MODEM)

The configuration parameter used to declare a modem on a port is as follows:

```
[Type]
COM3=remote
```

### 1.2 DIRECTION OF COMMUNICATION

To notify the direction in which the ports communicate, the kerwin32.cfg file configuration parameters are as follows:

```
Alarm Ports=COM3
Recup Ports=COM3
```

In the above example, COM3 is incoming/outgoing.



## 2 LINKS

### 2.1 CONFIGURING INCOMING LINKS

All the parameters are set in the kercom.ini file

#### 2.1.1 Modem link

```
[Baudrate]  
COM3=9600
```

```
[Initstring]  
COM3=V1E0M1
```

## 3 CONFIGURING THE SITE

### 3.1 INFORMATION REQUIRED

Before starting the site autoconfiguration process, the following information must be gathered:

- The name of the site as it appears in W310
- The Modbus address (by default 1)
- The telephone number
- The user name

### 3.2 AUTOMATIC CONFIGURATION

Kerwin manages the automatic configuration for the W310 units. Kerwin automatically creates a new W310 site when it receives, for the first time, an SMS message from a given W310 (Kerwin takes the phone number as a basis for identifying a W310).

The automatic configuration of a W310 consists in:

- Automatically adding a new W310 site
- Automatically creating all the application variables and the system variables attached to this W310
- Automatically creating all the files related to the W310 (**one file for the application variables, one file containing all the system variables**); the system variables are sent in the diagnostic SMS message.

If a W310 site already exists in the database with a given telephone number, no new site will be created with this telephone number.

The name of a W310 site that was automatically created is generated according to the following format:

- Begins with the <> characters
- Followed by the name specified in the W310
- And, finally, the telephone number (in international format)

The name of the site can then be changed by the user.

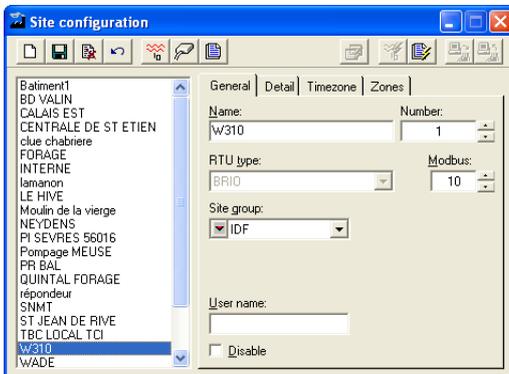
### 3.3 CONFIGURING A W310 SITE MANUALLY

In Kerwin, go to the "Site configuration" item

#### 3.3.1 General tab

Enter information in the following fields:

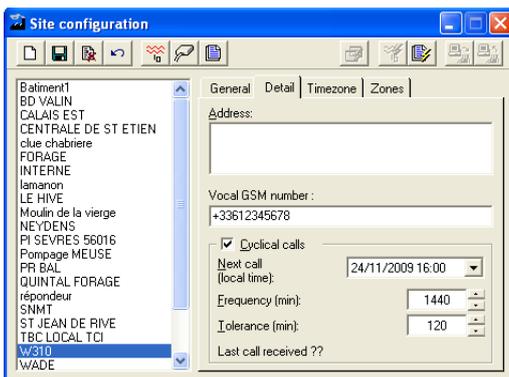
- **Name:** the name given to the site
- **Number:** increment by 1 each time a new site is declared in Kerwin
- **Type of local unit :** Brio must be selected
- **Modbus:** address 1 by default
- **Sector:** used, optionally, to distribute the units by sectors (see general Kerwin documentation)
- **User name:** leave this field blank



#### 3.3.2 Detail tab

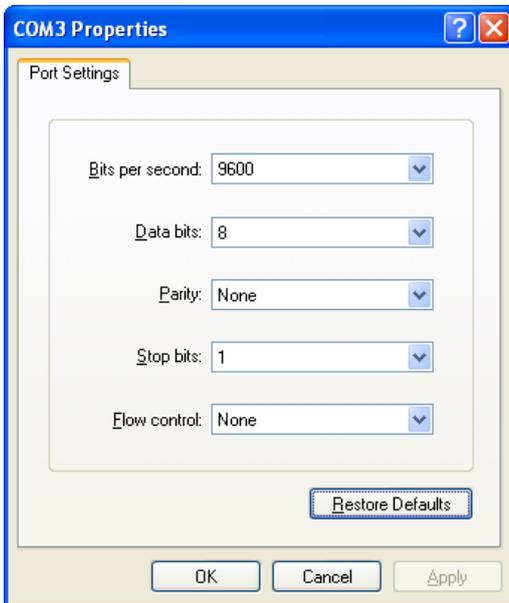
Give the following information:

- **Address:** exact geographical location of the site (optional)
- **GSM voice number:** number received by KERWIN when it receives an SMS message from the site. It generally consists of the international prefix (+33 for France) followed by the digits of the telephone number associated with the emitting SIM card (generally its voice number). This parameter is essential as, by default, it will enable the source of the SMS message to be recognised.
- **Cyclic calls:** to check that the W310 periodic call is working correctly, confirm the cyclic call by specifying the date of the next call and the call period. If the call has not been received by the end of the time indicated by the tolerance, a missing cyclic call is generated.



## 4 USEFUL HAYES COMMANDS

This section gives an exhaustive list of AT (Hayes) commands in order to test or configure the GSM modem receiving the SMS messages.



### 4.1 HYPERTERMINAL

To connect to the modem, use the HyperTerminal software provided by Windows.

Create a connection using the port to which the modem is connected and the following parameters:

- Baud rate: 9600 Baud
- Format: 8 bits
- Stop: 1 bit
- Parity: None
- Flow control: None

To be sure not to make a mistake, you can click on "Default parameters", followed by OK.

### 4.2 AT COMMANDS

The AT command must return OK.

#### 4.2.1 Managing the PIN code

##### AT+CPIN?

- +CPIN: READY if the PIN code is valid
- +CPIN: SIM PIN if the code is not yet validated
- ERROR: the SIM card is not present

Kerwin cannot send a PIN code. You must therefore delete this code.

1- **AT+CPIN = "0000"** where xxxx is the PIN code.

The modem connects to the network

2- **AT+CLCK = "SC",0, "xxxx"** where xxxx is the PIN code of the card. When the modem has executed the command, it responds **OK**.

#### 4.2.2 Operator and signal test

##### AT+COPS?

- Returns the name of the operator.

##### AT+CREG?

- +CREG: 0,1 Connected to the personal area network
- +CREG: 0,5 Connected to another network (roaming)

**AT+CSQ**

- +CSQ;0: -113 dBm or less (reception impossible)
- +CSQ;1: -111 dBm (reception too weak)
- 2 to 30: -109 to -53 dBm (good reception)
- 31: -51 dBm or above (excellent reception)
- 99: cannot be measured (no network connection)

Depending on the operators, the minimum reception level required to guarantee that SMS messages are received must be between 12 and 15.

**4.2.3 SMS transmission test**

Execute the following sequence to send an SMS:

- **AT+CMGF=1** (goes into text mode)
- **AT+CMGS=0612345678**
- **> text to be sent <CTRL><Z>**  
The modem responds:
- **+CMGS :xx**, the message has been sent, xx corresponds to the number of messages sent.

**4.2.4 Managing the modem**

- **AT+IPR** Sets the communication speed over the modem serial port:
- **AT+IPR=9600**: The communication speed must be 9600 over the modem and Kerwin (see section 2.1.1).  
Some modems are supplied with the port speed set to 115200. In this case, you will have to connect via HyperTerminal at 115200 bps and then give the command AT+IPR=9600.
- **AT+CSCS="GSM"** Selects the character set. Kerwin can only analyse SMS messages with this character set
- **AT+CPMS="ME"** The messages will be stored in the modem memory
- **AT+CPMS="SM"** The messages will be stored in the SIM card
- **AT+CPMS="ME","SM"** Combination of the two previous commands
- **AT+CPMS="MT"** For the TC35 modem. The messages will be stored in both memories. Equivalent to the previous command (ME & SM)

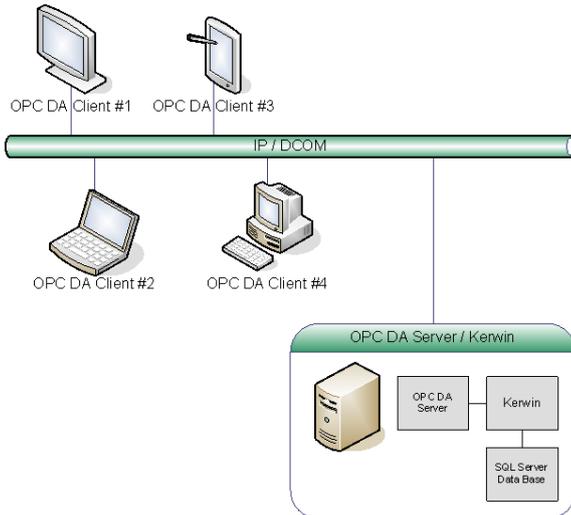
# APPENDIX F

OPC DA Server

---

<b>5</b>	<b>GENERAL DESCRIPTION.....</b>	<b>325</b>
5.1	DESCRIPTION .....	325
5.2	INSTALL PACK.....	325
<b>6</b>	<b>INSTALL.....</b>	<b>326</b>
6.1	NECESSARY SOFTWARE .....	326
6.2	USEFUL SOFTWARE.....	326
6.3	INSTALL .....	327
6.4	UNINSTALL .....	327
6.5	REGISTER / UNREGISTER THE OPC DA SERVER.....	328
<b>7</b>	<b>SETTINGS .....</b>	<b>329</b>
7.1	CONFIGURATION OF THE OPC DA SERVER.....	329
7.2	PUBLICATION OF VARIABLES.....	330
<b>8</b>	<b>EXPLOITATION .....</b>	<b>331</b>
8.1	NAME OF THE OPC DA SERVER .....	331
8.2	START/STOP THE OPC DA SERVER .....	331
8.3	NAMESPACE OF OPC DA SERVER.....	331
8.4	SCAN OF THE NAMESPACE AND SHUTDOWN.....	332
8.5	VALUES OF THE ITEMS OF OPC DA SERVER.....	332
8.6	WRITING ON ITEMS OF OPC DA SERVER .....	333
8.7	READ THE IMMEDIATE VALUES OF A SITE .....	334

## S.E.T. – OPC DA



## 5 GENERAL DESCRIPTION

### 5.1 DESCRIPTION

KERWIN sends and receives information towards local units, so that the customer can realize his own treatments on the present local units in KERWIN. This is necessary to use a standard communication exchange.

Suggesting an OPC Server to reach the local units of Kerwin will allow a customer having an OPC Client to pilot the data writing and reading on its local units.

OPC DA is a standard OPC that allows to realize these features.

This documentation's objective is to bring the necessary information for the OPC DA Server installation.

A version 5.1.0 or a superior of the Kerwin is necessary for the functioning of the OPC DA Server.

The OPC DA Server will only give access to the data of a single Kerwin Server.

The OPC DA Server and the Kerwin Server work on the same PC.

### 5.2 INSTALL PACK

#### The CD

It contains:

- The install program of Kerwin.
- The install program of Kerweb2.

#### The USB key of protection « dongle »

- This key is mandatory for the launch of the Kerwin application and also to activate the OPC DA Server.

## 6 INSTALL

### 6.1 NECESSARY SOFTWARE



#### Windows Installer 4.5 Redistributable

The Microsoft® Windows® Installer (MSI) is the application installation and configuration service for Windows. Version 4.5 of the Windows Installer has several new features.

<http://www.microsoft.com/downloadS/details.aspx?familyid=5A58B56F-60B6-4412-95B9-54D056D6F9F4>



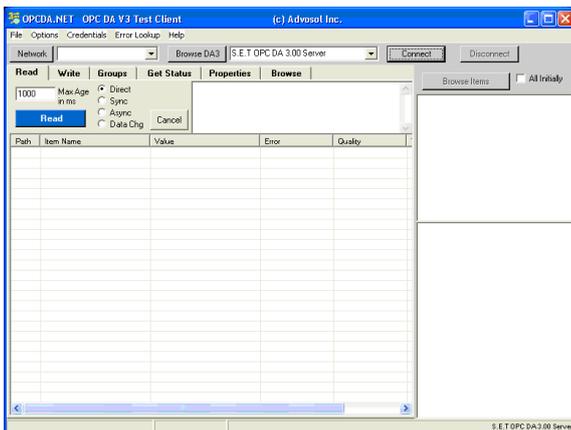
#### OPC Core Components 3.00 Redistributable (x86)

The OPC Core Components consists of all shared OPC modules that need to be distributed by multiple vendors. These modules include DCOM proxy/stub libraries, the OPC Server Enumerator, .NET wrappers, etc.

### 6.2 USEFUL SOFTWARE

#### Advosol – OPC DA V3 Test Client

This OPC DA Client is a tool that allows displaying the namespace, the monitoring of items as well as the reading of the properties of items.



### 6.3 INSTALL

**Description:**

The OPC DA Server will be installed and registered in the PC registry during Kerwin's installation.

The OPC Core Component 3.00 will be automatically installed during the installation of the OPC Server because this component is necessary for the functioning of the Server.

**Required system:**

The OPC DA Server and the Kerwin Server run on a 32bits Windows Operating system:

- Windows 2003 Server
- Windows XP SP2

**Memory:**

- 4 GB of RAM

**Processor:**

- Type Intel 2.5 GHz or superior

**Ports:**

- USB (for the protection key)

### 6.4 UNINSTALL

**Description:**

To uninstall the OPC Server it is necessary to use the application of Microsoft Windows "Add or Delete programs".

Uninstalling the OPC DA Server does not have impact on the installation of the KERWIN Server.

## 6.5 REGISTER / UNREGISTER THE OPC DA SERVER

### Description:

The register and the unregister of the OPC DA Server is automatically made during the installation and the uninstallation of the Server but it is also possible to make these actions manually

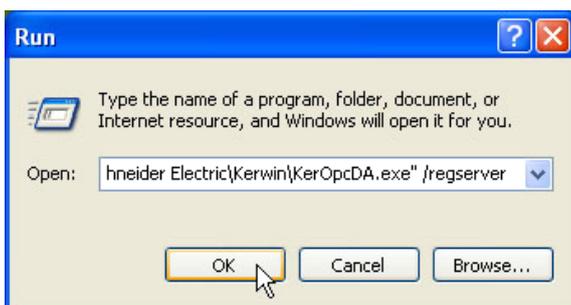
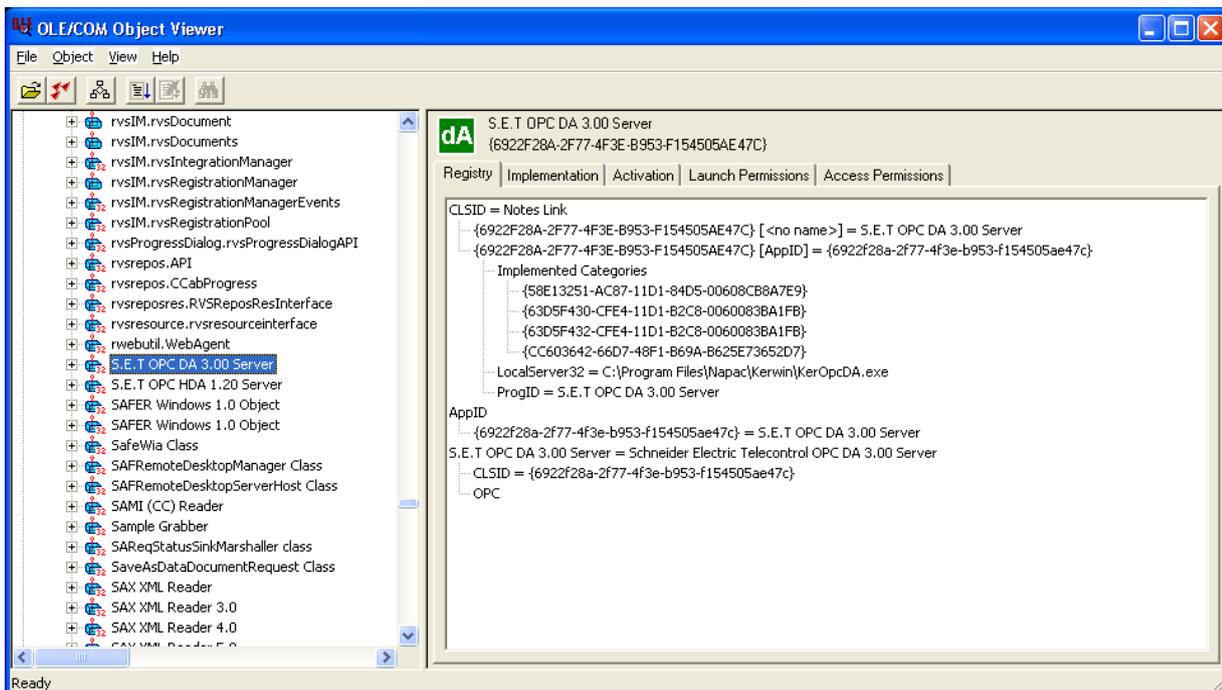
The GUID of OPC DA Server is the following:

**{6922F28A-2F77-4f3e-B953-F154505AE47C}**

After the register, this key should appear in the registry to the following places:

#### My Computer

- HKEY\_CLASSES\_ROOT
  - AppID
  - CLSID
  - S.E.T OPC DA 3.00 Server
    - CLSID
- HKEY\_LOCAL\_MACHINE
  - SOFTWARE
    - Classes
      - AppID
      - CLSID
      - S.E.T OPC DA 3.00 Server
        - CLSID



### Register:

To register the OPC DA Server It is only necessary to run KerOpdA.exe with the command line **/regserver**.

### Remove the register:

To remove the register of the OPC DA Server It is only necessary to run KerOpdA.exe with the command line **/unregserver**.

## 7 SETTINGS

### 7.1 CONFIGURATION OF THE OPC DA SERVER



**Description:**

The file of configuration is in the directory of installation of the OPC DA Server (which is normally the same that Kerwin), for example:

« C:\Program Files\Schneider Electric\Kerwin\KerOpcDA.cfg »

**[debug]**

**Default Path =**

Path where will be record the debug file

**OpcDA =**

Setting with format "LEVEL, SOURCE, SIZEMAX, TIME, ON|OFF"

LEVEL: keep the default value « 8000FFFF »  
 SOURCE: keep the default value « 2 »  
 SIZEMAX: example « 4096 » is the max length of the file in ko  
 TIME: example « 0 », is the max duration of the debug file (zero means « no limit »)  
 ON|OFF: example « ON » activates or deactivates the debug

**[OPC DA]**

**namespace\_update =**

Period in seconds between updates of the namespace

**item\_update=**

Period in seconds between updates of item's value

**writestate\_update=**

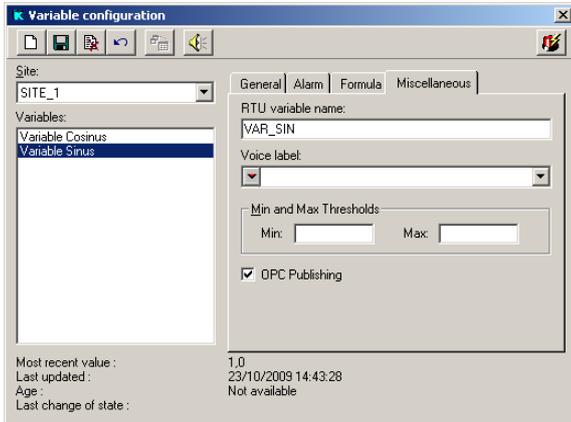
Period in seconds between updates of the writing status of items. The value -1 deactivates the feature.

**shutdown =**

Bit field for settings of "shutdown"

Bit 0 = 0 | 1: Active the "shutdown" of the server  
 Bit 1 = 0 | 1: Active the "shutdown" when an edition is detected  
 Bit 2 = 0 | 1: Active the "shutdown" when suppression is detected  
 Bit 3 = 0 | 1: Active the "shutdown" when a add is detected

## 7.2 PUBLICATION OF VARIABLES



### Description:

To have the variables visible in the Browser, they have to be published in the Kerwin UI or Web

In this purpose, go to the "Miscellaneous" tab and set the checkbox "OPC Publishing"



### Caution:

By default no variable is public

### Administrators of the Kerwin data base:

It is possible to do an UPDATE query on the field « is\_opc » of the table « voie ».

The value « 1 » means that the variable is public, 0 for not.

## 8 EXPLOITATION

### 8.1 NAME OF THE OPC DA SERVER

The OPC DA Server appears in the OLE/COM objects list under the name:

**S.E.T OPC DA 3.00 Server**

### 8.2 START/STOP THE OPC DA SERVER

The OPC DA Server can be started by 2 different ways:

- Manually by double-clicking on KerOpcDA.exe (in that case the server waits 10mn that a Client connects)
- automatically when a DA Client is going to ask for a connection

Once the server starts, an icon appears in the area of announcement of the taskbar.

### 8.3 NAMESPACE OF OPC DA SERVER

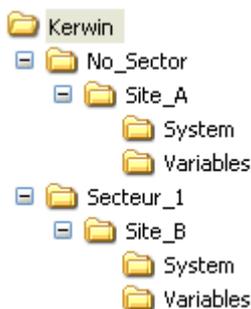
The namespace organizes hierarchically the entities of the Kerwin Server:

- Kerwin (the system)
- sectors (groups)
- sites (RTUs, local units, devices)
- variables (measure point of RTUs)

The namespace is updated in regular interval fixed by an option in the file of configuration. This option is called **namespace\_update**. During the update, the sending of the interface `IOPCShutdown` to the Clients can be configured with the **shutdown** option.

#### Comment:

- When a site has no sector, it is automatically allocated to a fictitious sector named « No\_Sector »
- System items represent the status of execution of Kerman. They are in the root of the namespace.
- System items represent the status of every site. They are in the « System » group of a site.



## 8.4 SCAN OF THE NAMESPACE AND SHUTDOWN

### Important:

The OPC DA Client must have an interface « callback » to support the event « SHUTDOWN » of the OPC DA Server.

Namespace being subject to changes in the course of functioning of the OPC Server, the interface SHUTDOWN allows the OPC Server to indicate a necessity of restart for an update of the namespace (the managed actions are « modification », « deletion » and « addition »).

The control of the namespace is made every 10mn (this period is customizable in the file of configuration).

Consult the section « 3.1 Configuration of the OPC DA Server » for more information

## 8.5 VALUES OF THE ITEMS OF OPC DA SERVER

The value of items is updated by a mechanism of event sent by KERWIN to the OPC DA Server. This event is sent as soon as the value of the variable has changed. It is dynamic because only the variable that has change is updated.

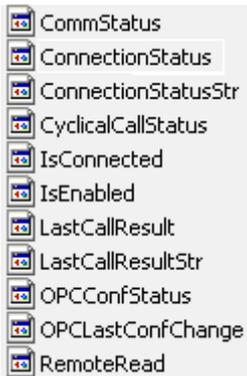
However, a mechanism of interrogation starts in regular interval. This interval is fixed with the option **item\_update** of the file of configuration. It will update the value of every item OPC according to the value of the variable which corresponds to him in database.

The Kerwin item possesses 3 system items:

- **ConnectionStatus** that indicates by a numerical value the status of the connection with Kerman.
  - 0 = no connected
  - 1 = in the course of connection
  - 2 = connected
- **ConnectionStatusStr** indicates by a sentence the numerical value of **ConnectionStatus**.
- **IsConnected** that takes the value 1 when the OPC Server is connected to Kerman.



Every site possesses 2 groups: a group system that possesses items informing about the variable status of the site and a group that contains items representing the variables of the site.



Here is the detail of 11 system items of sites:

- **CommStatus** indicates by a numerical value the defects of communication of the site.
- **ConnectionStatus** indicates by a numerical value the status of connection of the site.
- **ConnectionStatusStr** indicates by a sentence the numerical value of **ConnectionStatus**.
- **CyclicalCallStatus** indicates by a numerical value the state of the cyclical call of the site.
- **IsConnected** indicates if we are connected with the distant site.
  - o 0 = disconnected
  - o 1 = connected
- **IsEnabled** indicates if the site is out of order or not.
  - o 0 = Out of order
  - o 1 = In service
- **LastCallResult** indicates by a numerical value the result of the last call of the site.
- **LastCallResultStr** indicates by a sentence the numerical value of **LastCallResult**.
- **OPCConfStatus** indicates the status of load of the namespace of the site.
- **OPCLastConfChange** indicates the date of the last change of the namespace of the site (addition or deletion of variables).
- **RemoteRead** is detailed in the section 4.4.

All the system items are protected in writing, except the item **RemoteRead**.

## 8.6 WRITING ON ITEMS OF OPC DA SERVER

For all the items, writing takes place like that:

- 1) The value to write and the timestamp of the request are stored in the properties 5000 and 5001 of the concerned item (respectively « Write Value » and « Write Date »).
- 2) The write request is sent to Kerman. It consists in calling the site owner of the variable corresponding to the item, writing the value wanted in the variable and reading the immediate values.
- 3) The writing statuses of the item are stored in the properties 5002 and 5003 (respectively « Write State » and « Write State Str »).
- 4) After the writing, the value of the item is updated in theory (by reading the immediate values).

**About writings:** Writing in an internal variable will not change the value of this one. This action is not advised.

**About the status of writing:** every time we write in an item, writing status is updated. These last ones are updated then automatically at the end of a period fixed by the option **writestate\_update** of the file of configuration. If the option is set to 1, the automatic update never takes place and this for all items.

### **8.7 READ THE IMMEDIATE VALUES OF A SITE**

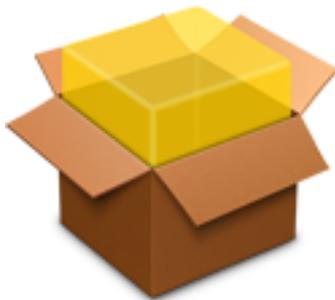
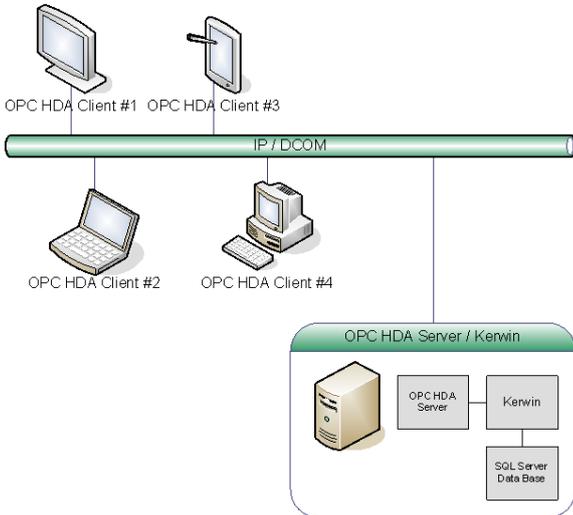
Every site possesses an item system called **RemoteRead**. The writing of the value 1 in this item has the effect of starting a request of the immediate values of the site.

# APPENDIX G

OPC HDA Server

<b>1</b>	<b>GENERAL DESCRIPTION.....</b>	<b>337</b>
1.1	DESCRIPTION .....	337
1.2	INSTALL PACK.....	337
<b>2</b>	<b>INSTALL.....</b>	<b>338</b>
2.1	NECESSARY SOFTWARE .....	338
2.2	USEFUL SOFTWARE.....	338
2.3	INSTALL .....	339
2.4	UNINSTALL .....	339
2.5	REGISTER / UNREGISTER THE OPC HDA SERVER.....	340
<b>3</b>	<b>SETTINGS .....</b>	<b>341</b>
3.1	CONFIGURATION OF THE OPC HDA SERVER .....	341
3.2	PUBLICATION OF VARIABLES.....	342
<b>4</b>	<b>EXPLOITATION .....</b>	<b>343</b>
4.1	NAME OF THE OPC HDA SERVER.....	343
4.2	START/STOP THE OPC HDA SERVER.....	343
4.3	NAMESPACE OF OPC HDA SERVER.....	343
4.4	SCAN OF THE NAMESPACE AND SHUTDOWN.....	344
4.5	QUALITY HDA / DA AND DATES .....	344
4.6	SUPPORTED ATTRIBUTES .....	345
4.7	LIMITATIONS.....	345
<b>5</b>	<b>MAINTENANCE.....</b>	<b>345</b>
5.1	DEBUG FILE.....	345

## S.E.T. – OPC HDA



## 1 GENERAL DESCRIPTION

### 1.1 DESCRIPTION

KERWIN centralizes in its database the immediate values and time stamped data. Customers need to extract these data of the KERWIN to make their own treatment.

KERWIN proposes various exchange solutions to extract the data stored. But none of these being standard and it involves a soft development customer side and / or Kerwin side.

Suggesting an OPC Server to reach the local units of Kerwin will allow a customer having an OPC Client to access the historical data reading on its local units.

OPC HDA is a standard OPC that allow realizing these features.

This documentation's objective is to bring the necessary information for the OPC HDA Server installation.

A version 5.1.0 or a superior of the Kerwin is necessary for the functioning of the OPC HDA Server.

The OPC HDA Server will only give access to the data of a single Kerwin Server.

The OPC HDA Server and the Kerwin Server work on the same PC.

### 1.2 INSTALL PACK

#### The CD

It contains:

- The install program of Kerwin.
- The install program of Kerweb2.

#### The USB key of protection « dongle »

- This key is mandatory for the launch of the Kerwin application and also to activate the OPC HDA Server.

## 2 INSTALL

### 2.1 NECESSARY SOFTWARE



#### Windows Installer 4.5 Redistributable

The Microsoft® Windows® Installer (MSI) is the application installation and configuration service for Windows. Version 4.5 of the Windows Installer has several new features.

<http://www.microsoft.com/downloadS/details.aspx?familyid=5A58B56F-60B6-4412-95B9-54D056D6F9F4>



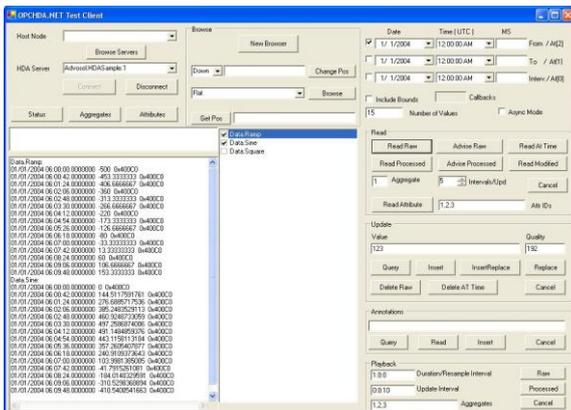
#### OPC Core Components 3.00 Redistributable (x86)

The OPC Core Components consists of all shared OPC modules that need to be distributed by multiple vendors. These modules include DCOM proxy/stub libraries, the OPC Server Enumerator, .NET wrappers, etc.

### 2.2 USEFUL SOFTWARE

#### Advosol - OPC Historian .NET Client Development Component

The **Test Client** application can be used as a diagnostic tool to see what OPC HDA servers are available and if they can be accessed.



## 2.3 INSTALL

### Description:

The OPC HDA Server will be installed and registered in the PC registry during Kerwin's installation.

The OPC Core Component 3.00 will be automatically installed during the installation of the OPC Server because this component is necessary for the functioning of the Server.

### Required system:

The OPC HDA Server and the Kerwin Server run on a 32bits Windows Operating system:

- Windows 2003 Server
- Windows XP SP2

Memory:

- 4 GB of RAM

Processor:

- Type Intel 2.5 GHz or superior

Ports:

- USB (for the protection key)

## 2.4 UNINSTALL

### Description:

To uninstall the OPC Server it is necessary to use the application of Microsoft Windows "Add or Delete programs".

Uninstalling the OPC HDA Server does not have impact on the installation of the KERWIN Server.

## 2.5 REGISTER / UNREGISTER THE OPC HDA SERVER

### Description:

The register and the unregister of the OPC HDA Server is automatically made during the installation and the uninstallation of the Server but it is also possible to make these actions manually

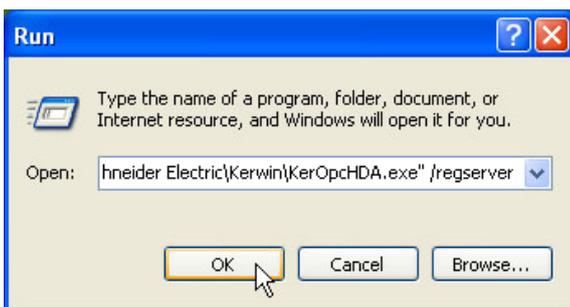
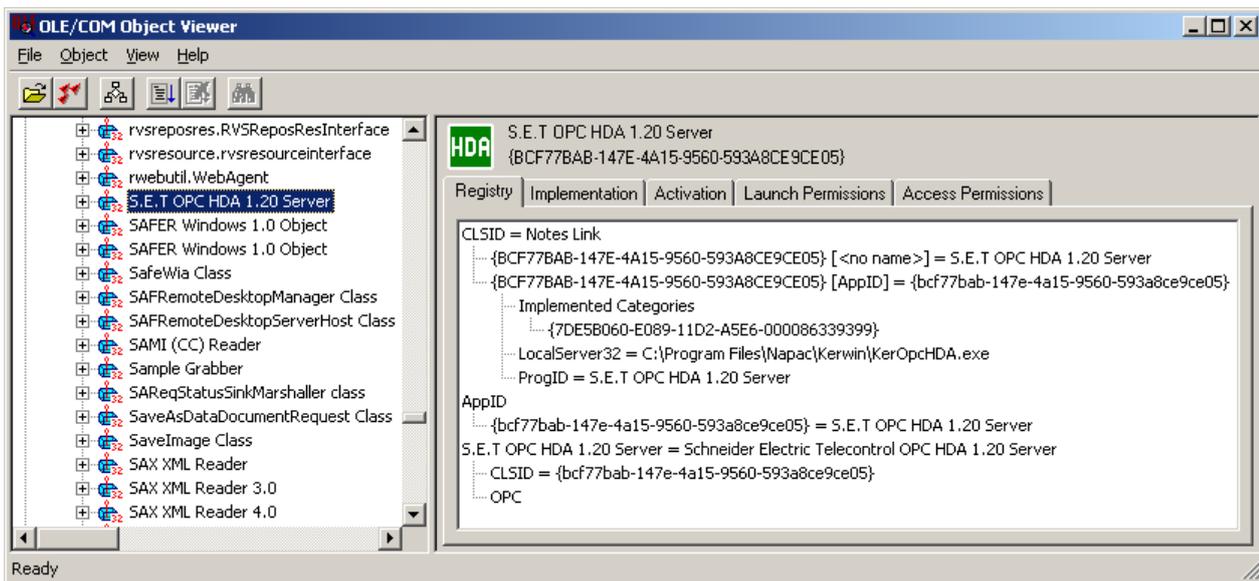
The GUID of OPC HDA Server is the following:

**{BCF77BAB-147E-4A15-9560-593A8CE9CE05}**

After the register, this key should appear in the registry to the following places:

#### Poste de travail

- HKEY\_CLASSES\_ROOT
  - AppID
  - CLSID
  - S.E.T OPC HDA 1.20 Server
    - CLSID
- HKEY\_LOCAL\_MACHINE
  - SOFTWARE
    - Classes
      - AppID
      - CLSID
      - S.E.T OPC HDA 1.20 Server
        - CLSID



### Register:

To register the OPC HDA Server It is only necessary to run KerOpchDA.exe with the command line **/regserver**.

### Remove the register:

To remove the register of the OPC HDA Server It is only necessary to run KerOpchDA.exe with the command line **/unregserver**.



### 3 SETTINGS

#### 3.1 CONFIGURATION OF THE OPC HDA SERVER

**Description:**

The file of configuration is in the directory of installation of the OPC HDA Server (which is normally the same that Kerwin), for example:

« C:\Program Files\Schneider Electric\Kerwin\KerOpHDA.cfg »

[debug]

Default Path =

Path where will be record the debug file

OpchDA =

Setting with format "LEVEL, SOURCE, SIZEMAX, TIME, ON|OFF"

LEVEL: keep the default value « 8000FFFF »  
 SOURCE: keep the default value « 2 »  
 SIZEMAX: example « 4096 » is the max length of the file in ko  
 TIME: example « 0 », is the max duration of the debug file (zero means « no limit »)  
 ON|OFF: example « ON » activates or deactivates the debug

[OPC HDA]

namespace\_update =

Period in seconds between updates of the namespace

shutdown =

Bit field for settings of "shutdown"

Bit 0 = 0 | 1: Active the "shutdown" of the server  
 Bit 1 = 0 | 1: Active the "shutdown" when an edition is detected  
 Bit 2 = 0 | 1: Active the "shutdown" when suppression is detected  
 Bit 3 = 0 | 1: Active the "shutdown" when a add is detected

- operation\_label\_0 = Value
- operation\_label\_1 = Average
- operation\_label\_2 = Min
- operation\_label\_3 = Max
- operation\_label\_4 = Total impulses amount
- operation\_label\_5 = Repartition 1
- operation\_label\_6 = Repartition 2
- operation\_label\_7 = Repartition 3
- operation\_label\_8 = Impulses amount
- operation\_label\_9 = Number of alarms
- operation\_label\_10 = Last alarm value
- operation\_label\_11 = Occurrence time
- operation\_label\_12 = Return-to-normal time
- operation\_label\_13 = Alarm duration
- operation\_label\_14 = Alarm status
- operation\_label\_15 = Gradient
- operation\_label\_16 = On
- operation\_label\_17 = Off
- operation\_label\_18 = Edge
- operation\_label\_19 = Reset
- operation\_label\_20 = Deviation
- operation\_label\_21 = Lower limit
- operation\_label\_22 = Upper limit
- operation\_label\_23 = Counting
- operation\_label\_24 = Old value

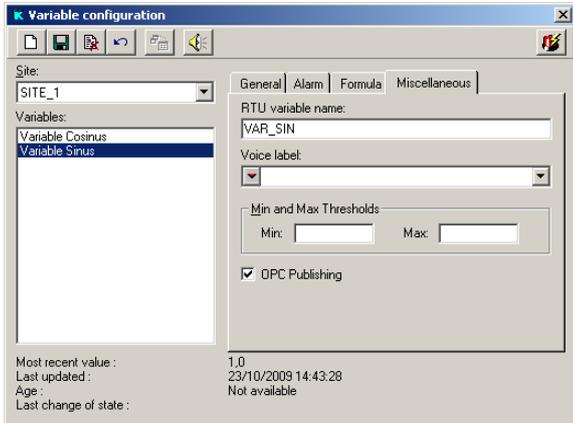
The parameters "operation\_label\_x" allow defining the label of operations on the variables in files (the last level of the namespace)

### 3.2 PUBLICATION OF VARIABLES

**Description:**

To have the variables visible in the Browser, they have to be published in the Kerwin UI or Web

In this purpose, go to the "Miscellaneous" tab and set the checkbox "OPC Publishing"



**Caution:**

By default no variable is public

**Administrators of the Kerwin data base:**

It is possible to do an UPDATE query on the field « is\_opc » of the table « voie ».  
The value « 1 » means that the variable is public, 0 for not.

## 4 EXPLOITATION

### 4.1 NAME OF THE OPC HDA SERVER

The OPC HDA Server appears in the OLE/COM objects list under the name:

#### S.E.T OPC HDA 1.20 Server

### 4.2 START/STOP THE OPC HDA SERVER

The OPC HDA Server can be started by 2 different ways:

- Manually by double-clicking on KerOpcHDA.exe (in that case the server waits 10mn that a Client connects)
- automatically when a HDA Client is going to ask for a connection

Once the server starts, an icon appears in the area of announcement of the taskbar.

### 4.3 NAMESPACE OF OPC HDA SERVER

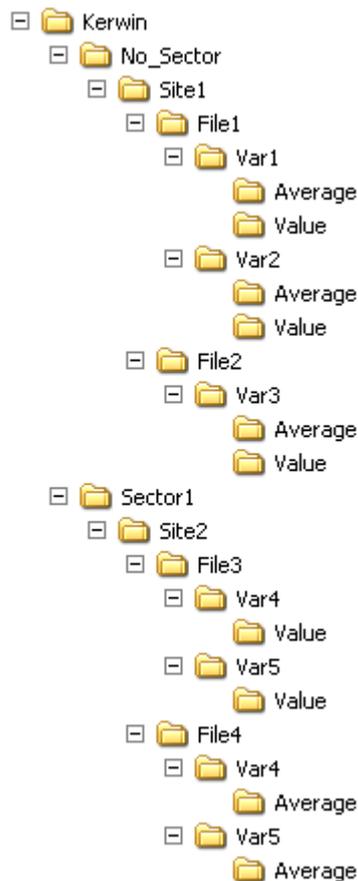
The namespace organizes hierarchically the entities of the Kerwin Server:

- Kerwin (the system)
- sectors (groups)
- sites (RTUs, local units, devices)
- files (structures storing the data timestamped, by Sites)
- Variables (the points of measure recorded by Sites)
- Operations (a treatment on the variable value before its recording)

Consult the appendix A « Kerwin entities and OPC HDA Namespace » for more information

#### Comments:

- The label of the operations are by default in English but can be modified in the file of configuration.
- The dividing character in the namespace is « . ».
- When a site has no sector, it is automatically allocated to a fictitious sector named « No\_Sector »
- The root of the arborescence will always be « Kerwin ».
- The "Value" operation type means that there was no treatment on the variable, the raw value is record.



#### 4.4 SCAN OF THE NAMESPACE AND SHUTDOWN

**Important:**

The OPC HDA Client must have an interface « callback » to support the event « SHUTDOWN » of the OPC HDA Server.

Namespace being subject to changes in the course of functioning of the OPC Server, the interface SHUTDOWN allows the OPC Server to indicate a necessity of restart for an update of the namespace (the managed actions are « modification », « deletion » and « addition »).

The control of the namespace is made every 10mn (this period is customizable in the file of configuration).

Consult the section « 3.1 Configuration of the OPC HDA Server » for more information

#### 4.5 QUALITY HDA / DA AND DATES

The database Kerwin stores the exact value read in the local units (RTU) the returned quality HDA/DA is always RAW/GOOD.

Exception made in the case of an interpolation (reading between 2 points), in that case the returned quality will be INTERPOLATE/BAD.

All the dates are given in the universal UTC/GMT format

## **4.6 SUPPORTED ATTRIBUTES**

The attributes supported by the OPC HDA Server are the following ones:

- (1) **OPCHDA\_DATA\_TYPE** :
  - o This attribute allows know the type of VARIANT used for stored the data (in Kerwin all the historic data are recorded in double C format what is translated by variant in VT\_R8)
  - o The return type is a VT\_I2
- (2) **OPCHDA\_DESCRIPTION** :
  - o String describing the item
  - o The return type is a VT\_BSTR
- (3) **OPCHDA\_ENG\_UNITS** :
  - o Return the item unit, for example « kg/sec »
  - o The return type is a VT\_BSTR
- (11) **OPCHDA\_NORMAL\_MAXIMUM** :
  - o Return a value which corresponds to the acceptable maximal limit for a normal functioning
  - o The return type is a VT\_R8
- (12) **OPCHDA\_NORMAL\_MINIMUM** :
  - o Return a value which corresponds to the acceptable minimal limit for a normal functioning
  - o The return type is a VT\_R8

## **4.7 LIMITATIONS**

The OPC HDA Server only implements the mandatory's interfaces of the standard (optional functions of aggregation and asynchronous reading are not supported for example).

## **5 MAINTENANCE**

### **5.1 DEBUG FILE**

The debug file is activated in the file of configuration KerOpcHda.cfg

Consult the section « 3.1 Configuration of the OPC HDA Server » for more information

# APPENDIX H

COM/DCOM configuration for OPC  
Client/Server

<b>1</b>	<b>COM/DCOM CONFIGURATION.....</b>	<b>348</b>
1.1	FIREWALL OF WINDOWS XP .....	348
1.2	CONFIGURATION COM/DCOM FOR THE CLIENT AND THE SERVER.....	348
1.3	SPECIFIC CONFIGURATION COM/DCOM FOR OPC DA SERVER.....	349
1.4	SPECIFIC CONFIGURATION COM/DCOM FOR OPC HDA SERVER .....	351

## 1 COM/DCOM CONFIGURATION

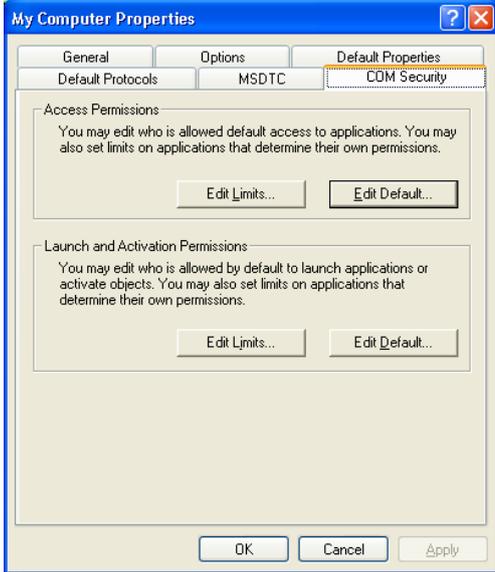
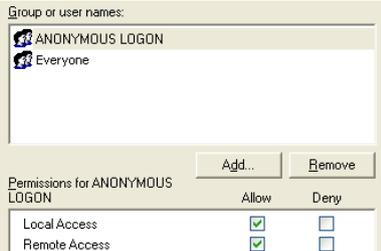
### 1.1 FIREWALL OF WINDOWS XP

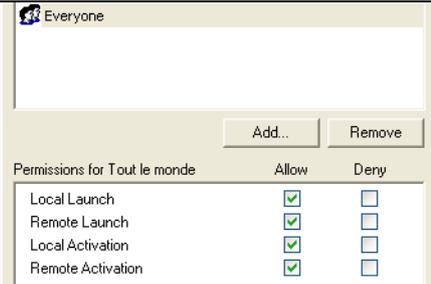
The firewall of Windows XP is activated by default. This parameter setting is the one recommended by Microsoft and the OPC foundation to guarantee a protection maximal of the system. However, if you have any problem of connection between the Client and the Server OPC, he can be interesting to deactivate it during the tests to make sure that it is not in question.

Once the tests are realized and successful, you can reactivate the firewall. To keep it functioning right, it is necessary to parameterize the firewall so that the program « KerOpcDA.exe » possesses the rights of communication on the network (Firewall > tab Exceptions > to Add a program). It is also necessary to authorize the connections TCP on the port 135 used by DCOM (Firewall > tab Exceptions > to Add a port).

### 1.2 CONFIGURATION COM/DCOM FOR THE CLIENT AND THE SERVER.

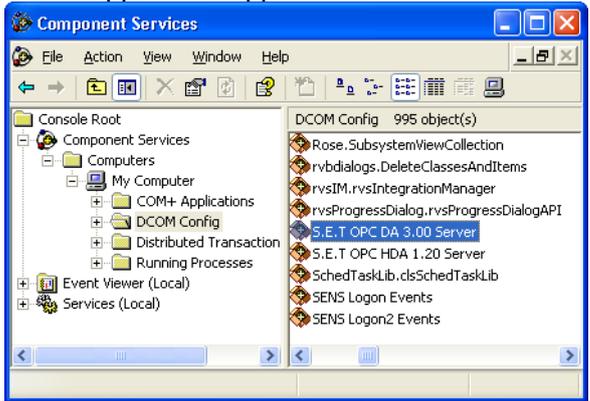
Follow these steps to configure the COM / DCOM service by default.  
This configuration must be made on the Client and on the Server.

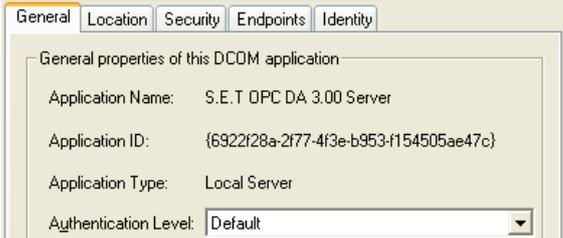
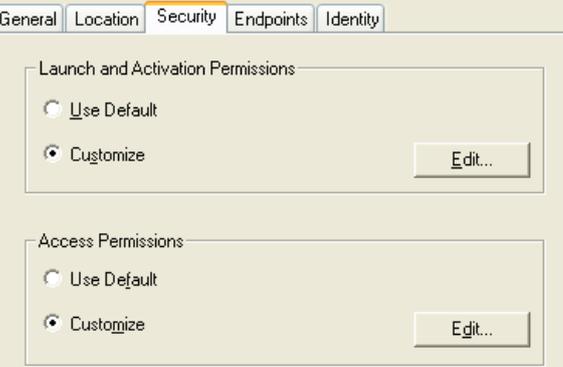
Number	Action	Result									
1	Click "Start" then "Execute". In the new opened window, type DCOMCNFG then click on OK.	A window « Component Services » opens.									
2	Open the knot "Component Services" then open "Computers". Right click > properties on "My Computer".	A window of properties opens.									
3	Click the tab "COM Security".										
4	Click on the button "Edit Limits..." on the frame "Access Permissions" and check "Allow" for "Remote access" for the user "ANONYMOUS LOGON". Validate.	 <table border="1"> <thead> <tr> <th>Permissions for ANONYMOUS LOGON</th> <th>Allow</th> <th>Deny</th> </tr> </thead> <tbody> <tr> <td>Local Access</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Remote Access</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Permissions for ANONYMOUS LOGON	Allow	Deny	Local Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Remote Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Permissions for ANONYMOUS LOGON	Allow	Deny									
Local Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Remote Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>									

<p>5</p>	<p>Click on the button "Edit Limits..." on the frame "Launch and Activation Permissions" and check "Allow" for "Remote Launch" and "Remote Activation" for the user "Everyone". Validate.</p>	
<p>6</p>	<p>Click on the button "Edit Default..." on the frame "Access Permissions" and check "Allow" for "Local Access" and "Remote Access" for each profile or group of OPC users of the PC. Validate.</p>	<p>Local Access <input checked="" type="checkbox"/></p> <p>Remote Access <input checked="" type="checkbox"/></p>
<p>7</p>	<p>Click on the button "Edit Default" on the frame "Launch and Activation Permissions" and check "Allow" for "Remote Launch" and "Remote Activation" for each profile or group of OPC users of the PC. Validate.</p>	<p>Local Launch <input checked="" type="checkbox"/></p> <p>Remote Launch <input checked="" type="checkbox"/></p> <p>Local Activation <input checked="" type="checkbox"/></p> <p>Remote Activation <input checked="" type="checkbox"/></p>

### 1.3 SPECIFIC CONFIGURATION COM/DCOM FOR OPC DA SERVER

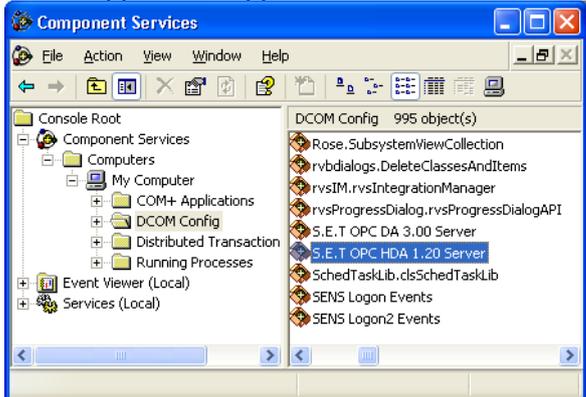
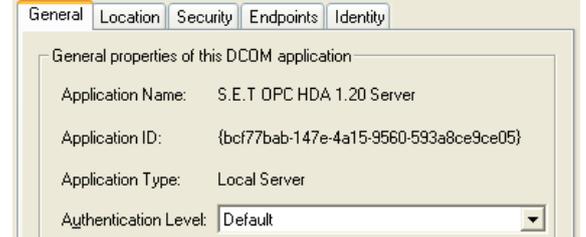
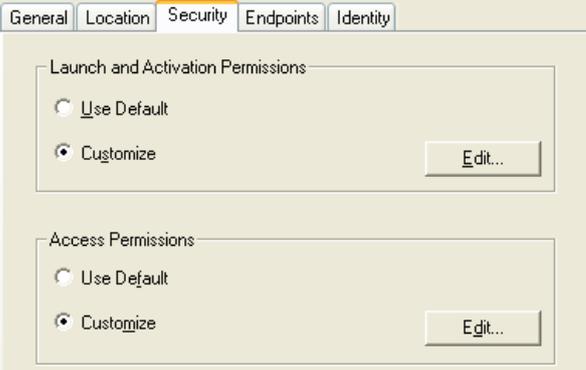
Follow these steps to configure a service specific COM / DCOM to the OPC DA Server

Number	Action	Result
<p>1</p>	<p>Click "Start" then "Execute". In the new opened window, type DCOMCNFG then click on OK.</p>	<p>A window « Component Services » opens.</p>
<p>2</p>	<p>Open the knot of "Component Services" then open "Computers" then open "My Computer". Open the directory "DCOM Config".</p>	<p>A list of application appears:</p> 
<p>3</p>	<p>In the list, select the OPC Server "S.E.T OPC DA 3.00 Server" Right Click &gt; Properties</p>	<p>A window of properties opens.</p>

<p>4</p>	<p>In the "General" tab, select "Default" for the "Authentication Level"</p>									
<p>5</p>	<p>In the "Security" tab, select "Customize" on frames "Launch and Activation Permissions" and "Access Permissions".</p>									
<p>6</p>	<p>Click on the button "Edit..." on frame "Launch and Activation Permissions" and check "Allow" for "Remote Launch" and "Remote Activation" for each profile or group of OPC users of the PC. Validate.</p>	<table border="0"> <tr> <td>Local Launch</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Remote Launch</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Local Activation</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Remote Activation</td> <td><input checked="" type="checkbox"/></td> </tr> </table>	Local Launch	<input checked="" type="checkbox"/>	Remote Launch	<input checked="" type="checkbox"/>	Local Activation	<input checked="" type="checkbox"/>	Remote Activation	<input checked="" type="checkbox"/>
Local Launch	<input checked="" type="checkbox"/>									
Remote Launch	<input checked="" type="checkbox"/>									
Local Activation	<input checked="" type="checkbox"/>									
Remote Activation	<input checked="" type="checkbox"/>									
<p>7</p>	<p>Click on the button "Edit..." on frame "Access Permissions" and check "Allow" for "Local Access" and "Remote Access" for each profile or group of OPC users of the PC. Validate.</p>	<table border="0"> <tr> <td>Local Access</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Remote Access</td> <td><input checked="" type="checkbox"/></td> </tr> </table>	Local Access	<input checked="" type="checkbox"/>	Remote Access	<input checked="" type="checkbox"/>				
Local Access	<input checked="" type="checkbox"/>									
Remote Access	<input checked="" type="checkbox"/>									
<p>8</p>	<p>In the "Identity" tab, choose "The interactive user." as account user to run the application. <b>The OPC Server can only run if the session is opened (or locked).</b></p>									

**1.4 SPECIFIC CONFIGURATION COM/DCOM FOR OPC HDA SERVER**

Follow these steps to configure a service specific COM / DCOM to the OPC HDA Server

Number	Action	Result								
1	Click "Start" then "Execute". In the new opened window, type DCOMCNFG then click on OK.	A window « Component Services » opens.								
2	Open the knot of "Component Services" then open "Computers" then open "My Computer". Open the directory "DCOM Config".	A list of application appears: 								
3	In the list, select the OPC Server "S.E.T OPC HDA 1.20 Server" Right Click > Properties	A window of properties opens.								
4	In the "General" tab, select "Default" for the "Authentication Level"									
5	In the "Security" tab, select "Customize" on frames "Launch and Activation Permissions" and "Access Permissions".									
6	Click on the button "Edit..." on frame "Launch and Activation Permissions" and check "Allow" for "Remote Launch" and "Remote Activation" for each profile or group of OPC users of the PC. Validate.	<table border="0"> <tr> <td>Local Launch</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Remote Launch</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Local Activation</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Remote Activation</td> <td><input checked="" type="checkbox"/></td> </tr> </table>	Local Launch	<input checked="" type="checkbox"/>	Remote Launch	<input checked="" type="checkbox"/>	Local Activation	<input checked="" type="checkbox"/>	Remote Activation	<input checked="" type="checkbox"/>
Local Launch	<input checked="" type="checkbox"/>									
Remote Launch	<input checked="" type="checkbox"/>									
Local Activation	<input checked="" type="checkbox"/>									
Remote Activation	<input checked="" type="checkbox"/>									
7	Click on the button "Edit..." on frame "Access Permissions" and check "Allow" for "Local Access" and "Remote Access" for each profile or group of OPC users of the	<table border="0"> <tr> <td>Local Access</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Remote Access</td> <td><input checked="" type="checkbox"/></td> </tr> </table>	Local Access	<input checked="" type="checkbox"/>	Remote Access	<input checked="" type="checkbox"/>				
Local Access	<input checked="" type="checkbox"/>									
Remote Access	<input checked="" type="checkbox"/>									

	<p>PC. Validate.</p>	
<p>8</p>	<p>In the "Identity" tab, choose "The interactive user." as account user to run the application.  <b>The OPC Server can only run if the session is opened (or locked).</b></p>	

# APPENDIX I

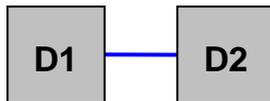
COM/DCOM configuration for OPC  
Client/Server

<b>1</b>	<b>LINK TYPES BETWEEN RECIPIENTS.....</b>	<b>355</b>
1.1	NEXT RECIPIENT.....	355
1.2	BACKUP RECIPIENT .....	355
<b>2</b>	<b>EXAMPLES .....</b>	<b>357</b>
2.1	SIMPLE CONFIGURATION USING BOTH LINK TYPES .....	357
2.2	MULTIPLE INSTANCES OF A RECIPIENT IN A SINGLE PROCEDURE .....	358
2.3	LOOP IN SUB-BRANCHES.....	359

## 1 LINK TYPES BETWEEN RECIPIENTS

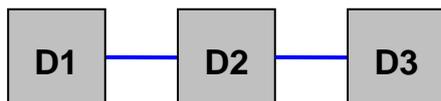
### 1.1 NEXT RECIPIENT

Visually, this link is represented by a blue line between the two recipients.



This kind of link allows calling several recipients at the same time. In our example, when the main recipient **D1** is called, the next recipient **D2** will be called too. Beware, this link is a one-way one: if **D2** is called, **D1** won't be.

Accordingly, a multiple-recipients configuration will be subject to a precise order. Thus, for the shown diagram :



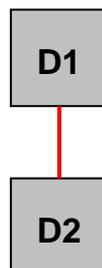
Calling **D1** will trigger a call to **D2**, which will trigger a call to **D3**.

Calling **D2** will trigger a call to **D3**.

Calling **D3** won't trigger any other call.

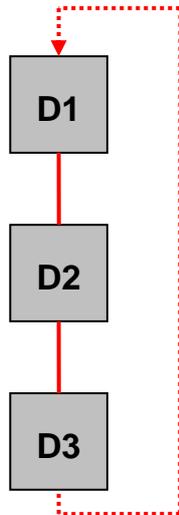
We will see later how **D2** and **D3** can be called.

### 1.2 BACKUP RECIPIENT



Visually, this link is represented by a red line between the two recipients.

This kind of link allows configuring which recipient will be called if the main recipient (**D1** here) is in error. In our example, if **D1** reaches its maximum number of acknowledgement failures, the alarm will be sent to **D2**.



Accordingly, a multiple-recipients configuration will be subject to a loop notion. Thus, for the shown diagram:

If nobody acknowledges, the behavior will be the following :

When **D1** is in error, **D2** is called.

When **D2** is in error, **D3** is called.

When **D3** is in error, **D1** is called.

## 2 EXAMPLES

In the following examples we will focus on several behaviors that can be confusing. Those behaviors may change in future versions of Kerwin.

### 2.1 SIMPLE CONFIGURATION USING BOTH LINK TYPES

This configuration uses the two links described in the previous chapter.

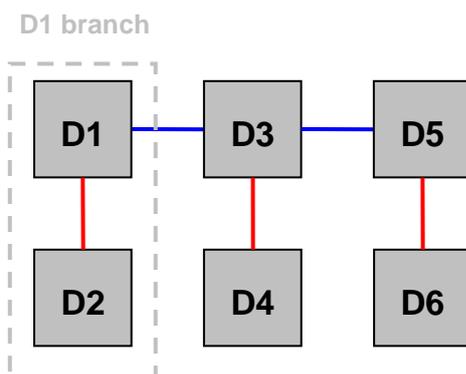
When the procedure is triggered, it calls **D1**, **D3** and **D5**.

Let's see what happens if none of those recipients acknowledges :

When **D1** is in error, **D2** is called.

When **D3** is in error, **D4** is called.

When **D5** is in error, **D6** is called.



Several cases may occur here, depending on the acknowledgements. Let's focus on some of these:

#### Case 1: D2 and D4 acknowledge

When D6 fails, it loops back to the origin of its branch: D5. D5 will be called again after the end of its inhibition delay. Branches D1 and D3 won't be called again.

#### Case 2: D2 and D6 acknowledge

When D4 fails, it loops back to D3.

As D3 is called, its next recipient will be called too, so D5 will be called again, even if its branch already acknowledged the event.

D1 branch won't be called again.

#### Case 3: D4 and D6 acknowledge

When D2 fails, it loops back to D1.

As D1 is called, D3 will be called too, and will also trigger a call to D5.

**We saw here that the order of the 'Next recipient' links is very important and can lead to multiple calls to a recipient.**

## 2.2 MULTIPLE INSTANCES OF A RECIPIENT IN A SINGLE PROCEDURE

This example highlights a wrong call tree. It won't lead to any crash, but one of the recipients will never receive anything!

When the procedure is triggered, it calls **D1** and **D2**.

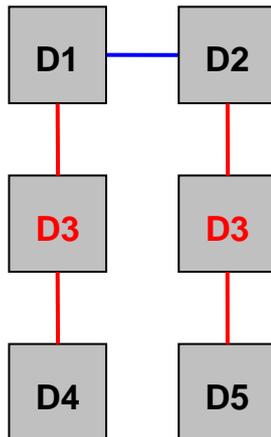
### Case 1 : D2 acknowledges

When **D1** fails, **D3** is called. If **D3** doesn't acknowledge, **D4** is called. In this case, everything is normal.

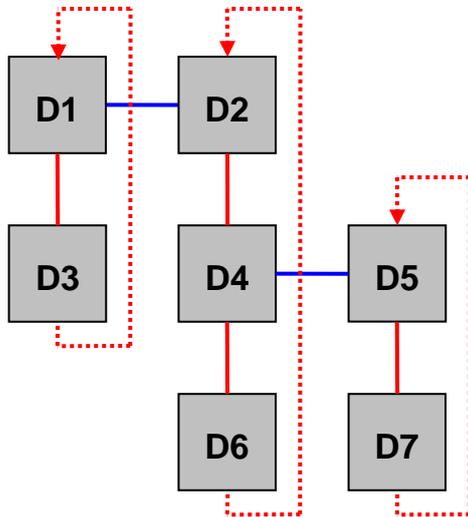
### Case 2 : D1 acknowledges

When **D2** fails, **D3** is called. If **D3** doesn't acknowledge, **D4** is called instead of **D5**!

**We saw here that regardless of the branch, D3 will always fall back to D4. D5 will never receive any event in this configuration. On constate ici que quelle que soit la branche en défaut, D3 passe toujours en secours sur D4. La direction D5 ne sera jamais appelée dans cette configuration. Duplicating a recipient in the same procedure is not recommended.**



### 2.3 LOOP IN SUB-BRANCHES



This example highlights the loop effect in complex trees.

We can see that the sub-branch **D5** loops on itself without going back to **D2**, because the 'next recipient'-type link between **D4** and **D5** creates a new standalone branch, whose origin is **D5**. Anyway, if **D2** branch loops and triggers a call to **D4**, then the **D5** branch will be called.

This behavior, despite being wrong, could prove puzzling. It Can be summarized by the following principle : **a branch can call its subsidiary branches, but cannot call the branch it comes from.**

Schneider Electric Industries SAS

Schneider Electric  
35 rue Joseph Monier  
CS30323  
F- 92506 Rueil Malmaison Cedex - France  
Tel: +33 (0)1 41 39 34 50  
Fax: +33 (0)1 41 39 34 00

<http://www.schneider-electric.com>  
Email: [info.telecontrol@schneider-electric.com](mailto:info.telecontrol@schneider-electric.com)

NT00359-EN-01

12/2014

*En raison de l'évolution des normes et du matériel, les caractéristiques indiquées par les textes et les images de ce document ne nous engagent qu'après confirmation par nos services.*

*As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.*

Publication: Schneider Electric - Made in France  
Production: Schneider Electric - Made in France  
Printing: Schneider Electric - Made in France