MAPSKIT 32

MapsUsr32   Graphic maps supervision system for multiple panel security installations

MapsConf32   Configuration software for MapsUsr32

MapsGen32   Graphic maps definition software for MapsUsr32

User's Guide

GRAPHIC MAPS SUPERVISION SYSTEM FOR MULTI-PANEL SECURITY
INSTALLATIONS - SERIAL & NETWORK CONNECTION

User's Guide

Contents

Chapter

1

1 INTRODUCTION

1.1 Basic concepts

1.1.1 MAPSKIT32 features

MAPSKIT32 is a software package planned to enable remote management (via one or more PC-based surveillance station) of security installations (fire detection, alarm, gas detection, CCTV surveillance).

The installation panels (of supported type) notice the state of controlled points and dialogue with PC-stations. **MAPSKIT32** translates in graphic and acoustic shape this information, and makes it real-time available to PC-station users. By means of **MAPSKIT32**, a PC station user can also execute, directly from PC, command manoeuvres on the security installation.

The powerful configuration tools included in **MAPSKIT32** guarantee high use flexibility:

- **MAPSKIT32** can manage a wide variety of security installations, thanks also to the large number of supported panel types
- **MAPSKIT32** allows a complete management of the supervision staff
- **MAPSKIT32** allows to set up, in a complete way, the supervised installation's graphic representation on PC-stations

MAPSKIT32 software package comes realized in two different versions, planned for two different types of control system:

- **MAPSKIT32S** ("**Serial**") – This version enables to shape and to manage a control system based on a single PC-station and one or more panels. The maximum number of panels supported by control system, depends on types used in the security installation. Panels communicate to PC-station through one or more serial connection..

- **MAPSKIT32N** ("**Network**") – This version enables to shape and to manage a more complex control system: one or more PC-station, and a widely selectable number of panels. Panels are connected to PC-stations via Ethernet network

using ProController devices. TCP/IP is used as communication protocol. As a favourable feature of the Ethernet network connection, in comparison with the serial connection, it's possible to locate panels and PC-stations at larger distances between them.

1.1.2 MAPSKIT32 modular structure

MAPSKIT32 software package, both in serial and network version, has a modular structure. The system is made up of 3 main program modules. A fourth, auxiliary, program module is distributed only with the network version **MAPSKIT32N**:

1. *System supervision module* – It performs the security installation management. It shows, on the PC-station monitor display, the security installation state, and enables the PC user to carry out commands on it
2. *Control system configuration module* – It enables to shape all parameters of the supervision module, so as to correctly adjust it to the security installation and to users
3. *Graphic maps configuration module* – It enables to adjust the way the security installation is displayed to the PC station user. It allows splitting up the visualization of the security installation in smaller graphic units, called *maps*.
4. *Procontroller configuration module* (**MAPSKIT32N** only) – It enables to shape all Procontroller's parameters. A Procontroller is a device having the task to connect the security installation's panels to the communication network.

Table 1.1 shows program modules names for the two versions of **MAPSKIT32**.

Software module	Serial (MAPSKIT32S)	Network (MAPSKIT32N)
System Supervision	MapsUsr32S	MapsUsr32N
Control System Configuration	MapsConf32S	MapsConf32N
Graphic Maps Configuration	MapsGen32	MapsGen32
ProController Configuration	---	Maps32CardProg

Table 1.1 – Software versions and program modules

1.1.3 Conventions used in this handbook

In order to avoid interpretation misunderstandings, we ask you to remind the conventions used in this handbook:

- Two different terms, **point** and **object**, may refer to a security installation sensitive element (e.g. a detector or a barrier). Point is a more generic word; object implies a distinction among possible uses of signals originated from the element (e.g.

activating panel signalling or activating CCTV command). In some cases, it will be used the word **sensor** instead of "point" or "object"

- The word **panel** indicates any device receiving or transmitting signals to sensitive point of the control system (e.g. an interface card for video matrix)
- The word **MAPSKIT32S** (all capital) identifies the whole software package, serial version only
- The word **MAPSKIT32N** (all capital) identifies the whole software package, network version only
- The generic word **MAPSKIT32** (all capital, without –**S** or –**N** suffix) identifies the whole software package, both serial and network version
- The word **MapsUsr32S** (lower-case) identifies the supervision module, serial version only
- The word **MapsUsr32N** (lower-case) identifies the supervision module, network version only
- The generic word **MapsUsr32** (lower-case, without –**S** or –**N** suffix) identifies the supervision module, both serial and network version
- The word **MapsConf32S** (lower-case) identifies the control system configuration module, serial version only
- The word **MapsConf32N** (lower-case) identifies the control system configuration module, network version only
- The generic word **MapsConf32** (lower-case, without –**S** or –**N** suffix) identifies the control system configuration module, both serial and network version
- The graphic maps configuration module, **MapsGen32**, is identical in both software versions. The ProController configuration module, **Maps32CardProg**, is supplied with the network version only. Therefore, for these two program modules, it's not necessary remarking the distinction between serial version and network version
- The graphic interface of **MAPSKIT32** program modules has typical Microsoft Windows® look-and-feel. As such, it does a massive use (selection of options, activation of commands) of the mouse left key. Therefore, in the description of operating procedures, this handbook implies the use of the mouse left key. We'll use the terminology emphasized in *italics*:
  1. *Clicking* or *selecting* a graphic object (e.g. icon, button, menu) means moving the mouse cursor on the object, pressing once the left key and then releasing it. Clicking is associated to many operations on graphic objects: selecting buttons or check boxes, opening menus or tab control boxes, inserting text, and so on;
  2. *Double clicking* a graphic object, means moving the mouse cursor on the object, pressing twice and very quickly the left key, and then releasing it. Double clicking usually runs a command;
  3. *Dragging* means moving the mouse cursor, keeping the left key simultaneously pressed. To drag a graphic object, click it and move it in the wished direction keeping pressed the mouse left key;
  4. *Right-clicking* a graphic object means moving the mouse cursor on the object, pressing once the right key and then releasing it. Right-clicking usually opens a popup menu.

- The term **button** identifies a typical Windows-style graphic object
- The term **key** identifies a part of mouse and keyboard.

1.1.4 What's new

The most recent **MAPSKIT32** version includes these new features:

- *New management functions for history logs* – Now user can: set up an upper limit for history logs; get an automatic backup of history logs when reaching upper limit; export history logs in Microsoft Access 97 format file
- *Quick positioning on graphic map* – User can quickly switch the visualization among maps. The map to be shown can be directly selected in a window containing the maps hierarchic tree
- *Advanced point research on maps* – Point search function has a more advanced interface
- *Logotype visualization function* – **MapsUsr32** graphic interface can show a logo image previously selected
- *Movement Detector* now supported
- *Point Menu* new look
- *Object List On Map Function* – During maps configuration, user can obtain a list of inserted objects (controlled points). The object list visualization can be arranged in two different ways: points per panels or points per maps and panels. User may print and export this object list. Object list allows also quickly locating, modifying and removing an object.

MAPSKIT32 previously released version introduced these features:

- *Variations levels* – User can establish priority levels and visualization mode associated to the point status variations
- *"Hidden object" attribute* – For every point, user can decide if showing or not its icon (when the point is at rest)
- *Recording PC user remarks* – When acknowledging an alarm, user can type a remark. This text is recorded along with the acknowledged alarm
- *Window minimizing* – User can minimize the display area engaged by the supervision program window. This reduced visualization is automatically disabled when receiving an alarm
- *New on-line log visualization* – When selecting a point event in the on-line log, the point descriptive text is shown in the upper bar
- *Maps drag & drop* – Drag & drop function (with the mouse left key) enables user to quickly re-arrange the graphic maps hierarchic tree
- *Point copy, cut and paste* – Windows clipboard functions enable user to quickly insert points on maps
- *Background image removal* – User can quickly remove the map background image

Suitably arranging limitations offered by the staff management options, one or more of these functions might become not available to PC user. To obtain more information consult paragraph 2.1.5.

1.1.5 Supported panel types

MAPSKIT32 supports a large number of panel types, both as regards panel manufacturer and as regards panel typology:

- Fire detection panels

- Alarm panels

- CCTV devices

To obtain information about **MAPSKIT32** supported panel types, consult our website: http://www.cidesit.com .

1.2 Program modules main functions

Next paragraphs offer a survey of **MAPSKIT32** main functions. For an in-depth description of these functions, consult following chapters:

- Chapter 2: using system supervision module (**MapsUsr32S** or **MapsUsr32N**)

- Chapter 3: using system configuration module (**MapsConf32S** or **MapsConf32N**)

- Chapter 4: using graphic maps configuration module (**MapsGen32**)

- Chapter 5: using ProController configuration module (**Maps32CardProg**)

1.2.1 System supervision: MapsUsr32

MapsUsr32S and **MapsUsr32N** provide a PC user having no use limitation, with following security installation supervision functions (some of these functions depend on panel features; they can be not available for some types of panel):

*The **alarm event** term refers to any event able to alarm the system. For instance, the status variation of a point, changing from the normal status to the alarm status. The **status variation** term refers to any condition change of a point.*

- visual and acoustic (vocal) signalling of all alarm events and all status variations (see note alongside) experienced by the security installation points. **MapsUsr32** allows identifying immediately the point experiencing status variation, by automatically switching its visualization on the point map. This automatic switching function may be disabled for some points or some status variations

- in case of several status variations, originated from different points belonging to different maps, **MapsUsr32** automatically shows the map concerning the highest-level status variation. If there is more than one status variation of highest level, **MapsUsr32** shows the map corresponding to the last event. The user can visualize other maps by using quick positioning function or navigation bar

- automatic activation of CCTV commands following particular status variations of points (crossed commands)

- complete acknowledgement of all alarm events; **MapsUsr32** stores event time and date, log description and the name of user performing acknowledgement. **MapsUsr32** stores also possible remark typed in by the user

- signalling pending alarms (not yet acknowledged)

- signalling last system event

- possibility of sending commands from the PC station to the selected panel

- monitoring the state of panels connected to the PC station; possible security installation troubles and disconnected points are signalled to the user

- possibility, from the PC station, of excluding from the system those points having a suspicious working.

- possibility, from the PC station, of reinserting points previously excluded

- possibility, from the PC station, of sending manual CCTV activation commands

- recording all system events in the history logs

- possibility, in any moment, of consulting, printing or exporting the history logs, filtering them in the wished way

- history logs automatic backup

- printing on-line (real-time) each system event

- possibility of displaying or not the icons of those points having flag "hidden object" set on

- advanced search for points; icons of seeking points are graphically highlighted.

- possibility of minimizing the on-screen program desktop.

MapsUsr32N also shows possible ProController troubles.

In accordance with use limitations applied to the supervision staff, some of these functions may be not available to a PC user.

1.2.2 System configuration: MapsConf32

MapsConf32S (serial) and **MapsConf32N** (network) allow setting up and verifying the working of the whole supervision system. The main configuration functions, allowed to a user who doesn't have any use limitation, are the following:

- Setting up the serial communication channels between PC station and panels (**MapsConf32S**): enabling and disabling channels; choice of serial ports; setting up communication parameters

- Setting up the network communication channel (between PC station and panels) (**MapsConf32N**): enabling and disabling the channel; choice of the TCP/IP port; setting up the working frequency

- Setting up panels: enabling and disabling the panel; selecting panel type; setting up panel address and ID code; setting up ProController IP address (**MapsConf32N** only); panel description; visualizing communication status; panel's details settings; dispatching commands to ProController (only from PC station "Host" or "Guest")

- Setting up alarms: modifying alarm levels; activating the alarm bell or vocal messages for system events having warning level greater than 0; listing names of .WAV files (e.g. vocal messages) corresponding to system events

- Managing the staff qualified for using **MapsUsr32** and **MapsConf32**: inserting new users; deleting users; user password modifying; setting up the user's right about supervisor use (**MapsUsr32**) and configuration use (**MapsConf32**)

- Setting up a black list on maps points: creating, deleting and modifying the black list. **MapsUsr32** doesn't manage status variations originated from points belonging to the black list

- Setting up software parameters concerning **MapsUsr32**: enabling on-line printing; selecting the printer; setting up alarm times, the way for muting alarm bell and the inactivity time (user automatic logout); selecting a text file for saving system configuration; setting up history log upper limit and performing events alignment

- Setting up variation logs levels: setting up the warning level for every status variation; selecting the way a point status variation is displayed to PC user (setting on or off automatic map switching and icon blinking)

For **MapsCon32N** (network) only:

- the panels configuration set up by **MapsConf32N** must be congruent with the one set up on ProControllers by **Maps32CardProg**.

- if the supervision system is composed by more than one PC station, **MapsConf32N** need to be run on each station, in order to make correct settings

In accordance with use limitations applied to the supervision staff, some of these functions may be not available to a PC user.

1.2.3 Maps configuration: MapsGen32

MapsGen32 (this module is identical in both software versions) allows splitting up the visualization of the security installation in smaller graphic units (maps). A map is the graphic unity displayed on screen by the supervisor **MapsUsr32**. **MapsGen32** provides a PC user (having no use limitation) with following maps configuration functions:

- Building up the tree hierarchic structure of graphic maps: inserting, removing, modifying a map on the tree; changing the map hierarchic level (drag & drop function); renaming a map

- Adding or removing background images to a map

- Adding or removing logo images to **MapsUsr32** desktop

- Tools for inserting, modifying and removing panels

- Tools for insertion, setting up and modifying points on maps

- Tools for point management starting from the list of objects on map

- Managing messages send to user connected to points alarm status

- Managing the staff qualified for using **MapsGen32**: setting hierarchic level, name and password of each user. This users' hierarchic subdivision is valid only for **MapsGen32**; it have no relationship with limitations imposed on **MapsUsr32** and **MapsConf32** use. Users qualified for using **MapsGen32** are classified according to three hierarchic levels (in order of decreasing hierarchy): *Service*, *Manager* and *User*. Users belonging to lowest hierarchic levels have access and use limitations towards **MapsGen32** functions.

1.2.4 ProController configuration: Maps32CardProg

Maps32CardProg (provided only with **MAPSKIT32N**) allows the local configuration of a ProController. Each ProController acts as a network interface for the security installation panels connected to it.

The configuration functions provided by **Maps32CardProg** are the following:

- Setting up the ProController IP address
- Setting up IP addresses of PC stations which are Host and Guest for the ProController
- Setting up the TCP/IP port used by the ProController
- Setting up IP addresses of other devices on the net

1.2.5 Authorized users

A double filter regulates the users' access to the programs,: name and password. Each program module asks the user to insert its name and its password in different stages of execution: at starting (**MapsConf32**, **MapsGen32**) or at login (**MapsUsr32**). For the same user, the name and the password, used to have access

to **MapsUsr32** and **MapsConf32**, may be different from the ones requested by **MapsGen32**.

MapsConf32 manages names and passwords of both MapsUsr32 and MapsConf32 users. **MapsConf32** allows also specifying the use rights towards **MapsUsr32** and **MapsConf32** functions. More in detail, it's possible to set up if an user can have access or not to the following functions:

- panels setting up (**MapsConf32**);
- communication channels (between panels and PC stations) setting up (**MapsConf32**);
- alarm levels setting up for system events (software or panels) (**MapsConf32**);
- managing users (**MapsConf32**);
- black list on maps points setting up (**MapsConf32**);
- **MapsUsr32** software parameters setting up (**MapsConf32**);
- point status variations (warning levels, ways of visualization) setting up (**MapsConf32**);
- ending **MapsUsr32** execution;
- sending commands to panels (**MapsUsr32**);
- acknowledging pending alarms (**MapsUsr32**);
- managing history logs (**MapsUsr32**);
- deleting history logs (**MapsUsr 32**);
- managing points (**MapsUsr 32**);
- minimizing **MapsUsr32** main window.

MapsConf32 itself manages names and passwords of MapsGen32 users. In **MapsGen32**, every authorized user is marked by the hierarchic level at which belongs. The hierarchic level establishes "preset rights" about **MapsGen32** use.

MapsGen32 recognizes three hierarchic user levels:

1. **Service** level: it's the highest hierarchic level. A Service level user can have access to **MapsGen32** without use limitations;

2. **Manager** level: it's the intermediate hierarchic level. A Manager level user cannot modify panel properties, nor show or exclude from using **MapsGen32** the Service level users. All the other **MapsGen32** functions are accessible;

3. **User** level: it's the lowest hierarchic level. An User level user can only visualize or print graphic maps. Therefore an User level **MapsGen32** user cannot:

   - modify panels properties;
   - manage users;
   - modify the maps tree using drag & drop function;
   - modify, delete or create graphic maps;
   - insert new points on a map, nor modify the properties of existing points;
   - copy, cut or paste points already existing;
   - remove or modify the background image of a map;
   - modify User Messages.

1.3 System requirements

MAPSKIT32 is planned for using IBM® (or 100 % compatible) personal computers, equipped with Pentium® CPU or better and running a 32-bit Microsoft® Windows® operating system: 9x, ME, NT 4.0, 2000, XP.

1.3.1 MAPSKIT32S requirements

For an efficient use of **MAPSKIT32S**, it is necessary for the hardware endowment of the PC station to satisfy the following minimum requirements:

- CPU Pentium® or better, 350 MHz clock speed;
- 64 MB RAM;
- AGP graphic adapter equipped with 8 MB on-board video memory;
- Graphic colour monitor supporting 800x600 pixels resolution (small font). A 1024x768 pixel (or higher) resolution is recommended;
- CD-ROM drive 40X to install programs on PC hard disc;
- Audio card and loudspeakers, to reproduce (in case of alarm) the alarm bell or vocal messages; microphone (optional) for recording vocal messages concerning points alarm states or system events;
- PS/2 or USB mouse;
- One or more (according to the number and the type of panels) serial port available, in order to realize the communication channels between panels and PC station.

1.3.2 MAPSKIT32N requirements

First of all, **MAPSKIT32N** requires the presence of an Ethernet network able to support a 10 Mbps data transfer speed.

Then, the hardware and software endowment of each PC station must satisfy the requirements already specified for the serial version (except the serial ports endowment), and the ones listed afterwards:

- Ethernet network interface card (NIC) supporting a 10 Mbps data transfer speed and correctly installed under Windows;
- software support for the TCP/IP protocol correctly installed and configured.

The security installation panels are connected to the net by ProController devices. Each ProController is connected to its panels in a serial way. To set up the working parameters of a ProController, this one must be locally connected to a programming PC

executing **Maps32CardProg**. The hardware/software endowment of the programming PC must satisfy the following minimum requirements:

- IBM® (or 100 % compatible) personal computer equipped with Pentium® CPU or better;
- Microsoft® Windows® 32 bit operating system;
- Graphic colour monitor supporting 800x600 pixels resolution (small font);
- mouse or similar pointing device;
- one available serial port for the connection to the ProController.

1.4 Preparatory steps

1.4.1 Installing MAPSKIT32

The software package is distributed on CD-ROM. Complete software installation on the PC station hard disc is needed before being able to run programs. Installing programs is extremely simple: the installation is of guided type and the distribution CD-ROM is autorunning.

If the network supervision system includes more than one PC station, you have to repeat the software installation on each station. The programs installation performs copying **Maps32CardProg** (ProController configuration module) too.

For both **MAPSKIT32** versions, the default target folder on hard disc is: C:\Program Files\MapsUsr32.

1.4.2 Windows NT/2000/XP SmartKey kernel driver

Using **MAPSKIT32** is allowed only in presence of hardware key (SmartKey). In order to use **MAPSKIT32** under Windows NT/2000/XP environment, you have to install the Smartkey kernel driver before installing **MAPSKIT32**.

Work as follows:

1. insert **MAPSKIT32** distribution disc in CD-ROM drive;

2. if the "autorun" function is on, the **MAPSKIT32** installation program automatically starts. Stop **MAPSKIT32** installation by closing the installer window (figure 1.3)

3. browse the distribution CD-ROM and look at the WinNT/Win2000/WinXP folder content (figure 1.1)

4. consult the README.TXT file in order to obtain information about installing the SmartKey Kernel Driver

5. install SmartKey Kernel Driver

If the "autorun" function is on, to restart the **MAPSKIT32** installation simply extract and reinsert the distribution disc in the CD-ROM drive. Otherwise manually start the procedure described in the next paragraph.
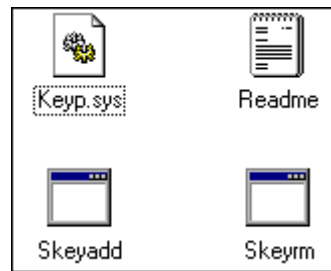
Figure 1.1 – MAPSKIT32 distribution CD-ROM: folder WinNT

1.4.3 Installation procedure

First of all, remember that you have to repeat the **MAPSKIT32** installation procedure on each PC station of the control system. This procedure is identical for both the **MAPSKIT32** versions.

If the operating system and the CD-ROM unit support the "autorun" function, simply insert the distribution disc in the CD-ROM drive to start the **MAPSKIT32** installation procedure.

Otherwise, you have to start manually the Spinstall.Exe file. In this case work as follows:

1. insert **MAPSKIT32** distribution disc in CD-ROM drive;

2. browse the content of disc units. You can use the Windows Explorer;

3. select the CD-ROM unit, browse the content of the **MAPSKIT32** CD-ROM, and look at the content of its root folder;

4. identify the Spinstall.Exe file (figure 1.2 describes its icon);

5. double-click its icon.

Figure 1.2 – Icon of the installation-starting program

Otherwise, to start manually the Spinstall.Exe file, you may work as follows:

1. insert **MAPSKIT32** distribution disc in CD-ROM drive;

2. under Windows, click Start and then select Run… command;

3. type the name of the installation program, completed of its DOS pathname; for instance d:\spinstall.exe (in this example we suppose that d: identifies the CD-ROM unit);

4. click OK for running Spinstall.Exe.

Whatever the method used to start Spinstall.Exe, MapsKit32 Installer window opens (figure 1.3).
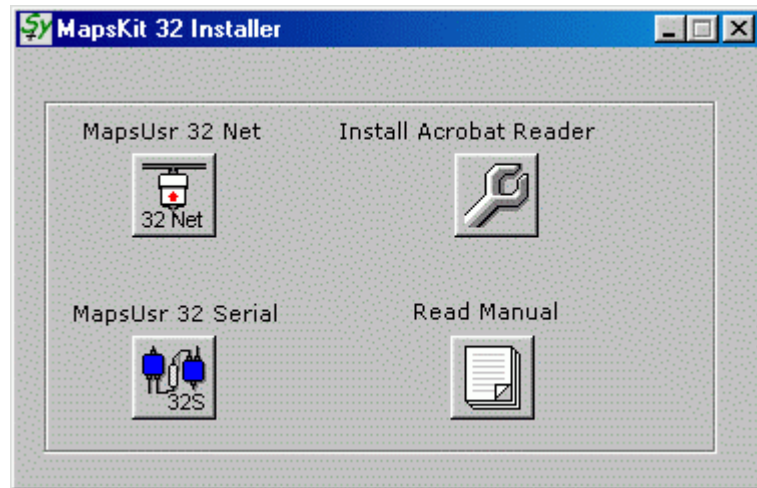
Figure 1.3 – MapsKit32 Installer *window*

The window buttons allow performing the following operations:

 • start **MAPSKIT32S** installation

 • start **MAPSKIT32N** installation

 • open **MAPSKIT32** user's guide (Adobe® Acrobat® Reader installation required)

 • start Adobe® Acrobat® Reader installation

As an example, suppose to start the **MAPSKIT32N** installation on the PC hard disc:

• click 32 Net button on MapsKit32 Installer window

• after a welcome window, asking you to confirm installation starting of the asks (Next> button), the licence contract window of licence opens. To accept the software use licence contract click Yes. To refuse the contract click No; in this case the installation program stops. If you accept the use licence contract, User Information window (figure 1.4) opens; this window requires you to type your name and the name of company you work for.
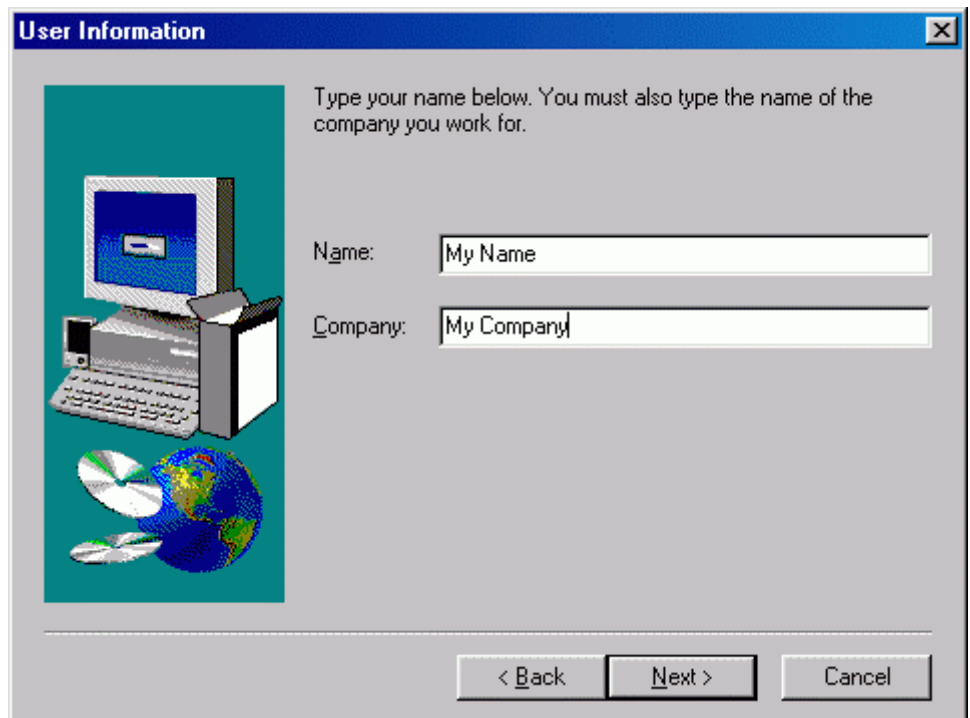
Figure 1.4 – User Information *window*

- type the requested data in the editing boxes Name and Company. To confirm the data and go on with the installation, click the Next > button. To interrupt the installation, click the Cancel button. To come back to the previous window click the < Back button. Buttons Next >, < Back and Cancel are common to almost all the dialogue windows composing guided installation

- after you inserted the correct data in the User Information window and you selected its Next > button, next window opens (Copying files). This last window summarizes the installation current settings. Clicking Next > performs the decompression and the copy of **MAPSKIT32N** files. Programs are copied in the folder C:\Program Files\MapsUsr32.

The installation creates also the links between programs installed and Windows menu Start → Programs (figure 1.5); link icons on Windows desktop are also created (figure 1.6). These links make easier the running of programs.
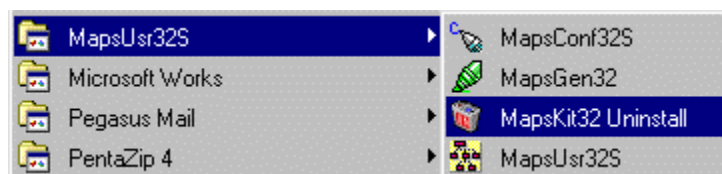
Figure 1.5 – MapsUsr32N *program group*

Figure 1.6 – Links to programs on Windows desktop

The **MAPSKIT32S** installation proceeds as the one previously described.

1.4.4 Uninstalling MAPSKIT32

Uninstalling the **MAPSKIT32** whole package is extremely simple. Here below we give directions to uninstall **MAPSKIT32N** (for **MAPSKIT32S** the procedure is identical) from a PC station. If needed, repeat uninstalling on each PC station.

- Select Start → Programs → MapsKit32 Uninstall from Windows Start menu (figure 1.5);

- Guided uninstalling starts;

- Confirm File Deletion window opens, asking you to confirm programs uninstalling (figure 1.7). To go on click Yes; to stop click No. Keyboard user must notice that the pre-selected button is Yes one: so, pressing Enter key, immediately starts programs uninstalling;
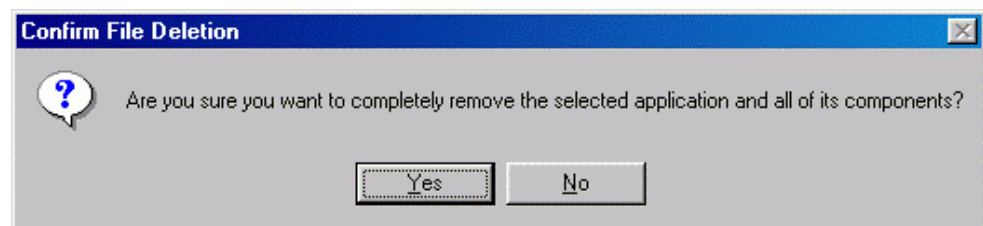
Figure 1.7 – Confirm file Deletion *window*

- another window opens, showing uninstalling progress. According to the cases, other windows, superimposed to the previous one, ask you for deleting shared files no longer used;

- at the end of the uninstalling process, the PC gives out an acoustic signal and a new window opens, informing you that uninstalling took place. To definitively end the uninstalling process, click the OK button of the window, or press the Enter key of the keyboard.

1.4.5 Starting programs. Pre-selected user codes

You can start **MAPSKIT32** programs as any other Windows application. You may use links between programs installed (program group MapsUsr32S or MapsUsr32N) and Windows menu Start → Programs (figure 1.5).

Otherwise, you can run each program by double-clicking its link icon on the Windows desktop (figure 1.6).

MapsConf32 and **MapsGen32** have the same initial window, which asks the user for inserting his name and his password (user codes). Unauthorized users can close such window pressing the ESC key of the keyboard. In the **MapsGen32** case, the program execution stops. In the **MapsConf32** case, all the possible use limitations are activated: it's simply available an informative form. Also **MapsUsr32** switches to an initial mode with all the possible use limitations activated. The user must log on the system (via the login procedure) in order to have access to the program options he's authorized for.

Before constituting the authorized users databases, you can use the following user codes, pre-selected in programs:

Program Module	User Name	User Password
MapsUsr32S / MapsUsr32N	supervisor	123
MapsConf32S / MapsConf32N	supervisor	123
MapsGen32	mappe	

Table 1.2 – Pre-selected user codes

Chapter

2

2 MAPSUSR32

2.1 Preliminary considerations

By using **MapsUsr32** on his/her PC station, the user is provided with all the tools for an efficient supervision of the security installation; this one must be based on panels (fire detection, alarm, gas detection, CCTV surveillance) supported by **MAPSKIT32**.

Before using **MapsUsr32**, you must correctly set up this module towards the security installation and towards the PC station on which it runs. To this purpose, you have to use the configuration tools offered by the **MapsConf32** module.

The **MapsUsr32** user, performs his surveillance duties in a totally graphic work environment. The security installation status is graphically shown on the PC station display, making the management of signalling originated from panels intuitive and immediate.

The visualization of security installation is split up in graphic sub-systems called *maps*. **MapsUsr32** works showing to the user one graphic map at a time. Using **MapsGen32** configuration tools, you can perform maps splitting up in the wished way. When necessary, the maps splitting up can be easily modified. By arranging maps containing location plans as background images, you can inform the **MapsUsr32** user on geographic locations of the controlled points.

MapsUsr32 comes realized in two different versions:

- **MapsUsr32S** (Serial) enables to manage a control system based on a single PC-station and one or more panels, communicating through one or more serial connection.

- **MapsUsr32N** (Network) enables to manage a network-based control system connecting PC stations and panels. Panels are connected to PC-stations via Ethernet network using ProController devices.

MapsUsr32S can manage several channels of serial communication between the PC station and panels. The maximum number of panels supported by each serial channel, depends on the type of the panels themselves. In order to fit the channels to the panels, **MapsConf32S** configuration module allows selecting the panel types and setting up all the communication parameters. Consult chapter 3 for further information.

From each PC station, **MapsUsr32N** approximately can manage a maximum of 20 panels, connected to the net through ProControllers. A PC station can communicate only with ProControllers (and connected panels) that use the same TCP/IP port. The maximum number of panels is widely configurable, so as to fit it to the security installation requirements. For each PC station, **MapsConf32N** configuration module allows to select the types of connected panels and to set up all the communication parameters. ProController IP addresses and TCP/IP ports set up by **MapsConf32** must coincide with those sets up by **Maps32CardProg**. Consult chapters 3 and 5 for further information.

In the next paragraphs, the **MapsUsr32** term indifferently refers to both the versions of the supervision module. In the practical use, **MapsUsr32S** differs from **MapsUsr32N** only for few particulars.

2.1.1 Authorized users

A hardware key on parallel port protects MapsUsr32 use.

Only users belonging to the authorized staff can use **MapsUsr32**, provided that the hardware key is inserted into PC station parallel port.

CAUTION! DON'T REMOVE NOR INSERT THE HARDWARE KEY WHEN THE SOFTWARE IS ACTIVE. SUCH OPERATION CAN IRREMEDIABLY DAMAGE THE KEY.

Each authorized user is identified by his/her name and his/her password. System configuration module, **MapsConf32**, allows to record name and password of each **MapsUsr32** user.
MapsConf32 allows also customizing the users' access to the **MapsUsr32** functions: it's so allowed to impose, to some users, convenient limitations on **MapsUsr32** use. It's possible to forbid an authorized user to use one or more of the following **MapsUsr32** functions:

- terminating **MapsUsr32**;

- sending commands to panels;

- acknowledging alarm events;

- having access to and/or print history logs;

- deleting history logs;

- sending commands to points;

- minimizing **MapsUsr32** desktop window.

Consult next paragraphs to obtain more information about **MapsUsr32** functions. Some of these functions may be not available to some **MapsUsr32** user, in consequence of limitations of use imposed to him. In any case, next paragraphs cover all the functions offered by **MapsUsr32**.

Refer to the chapter 3 to obtain further information as to set up limitations on the use of **MapsUsr32**.

2.1.2 User login and logout

When **MapsUsr32** starts running, the whole display area is engaged by the program desktop. When it's finished its loading into memory, **MapsUsr32** shows on screen the root map of the security installation. Awaited a short period, during which the panels bring up to date the points status, the objects placed on the map appear on screen.

Also people not qualified for using the program have access to the **MapsUsr32** desktop visualization. However, they don't have any access to the **MapsUsr32** commands. People unauthorized to use **MapsUsr32**:

- they can click the On-Line Log button and read the system alarm and events, but they cannot acknowledge such events;
- they cannot have access to the events historical database: Historical Log button is disabled;
- they can click the Exit button, but they cannot terminate **MapsUsr32** execution. To stop execution, **MapsUsr32** requires name and password of an authorized user;
- they can click the Detail button and read panels properties, but they cannot send commands to panels;
- they cannot send commands to points;
- they cannot display the security installation points having flag Object Hide on;
- they cannot minimize **MapsUsr32** desktop window.

To use functions he's authorized for, a **MapsUsr32** user must complete the login procedure:

Login

1. click Login button on **MapsUsr32** toolbar (figure 2.6)

2. User verify window opens (figure 2.1). Type name and password in editing boxes User and Password. If the PC station keyboard is not accessible, use the mouse on the window virtual numerical keyboard. To use this feature it's

necessary to arrange user names and passwords purely numerical. To confirm data inserted, click the OK button, or press the keyboard Enter key
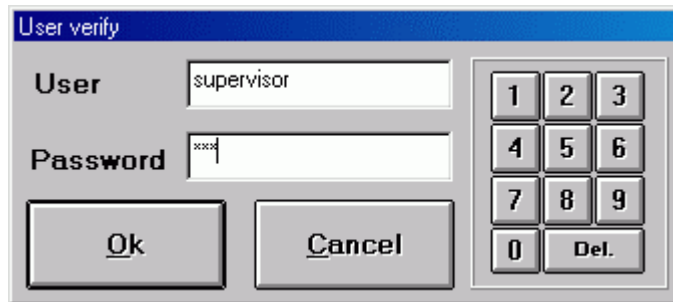
Figure 2.1 – MapsUsr32: User verify *window*

If the login procedure has a successful conclusion, the authorized user can begin his/her work session. Notice that now the tool-tip on the button became Logout (figure 2.6) and the user name is displayed in the user box of the **MapsUsr32** status bar (figure 2.10).

Logout

At the end of his/her work session, the authorized user must disconnect from **MapsUsr32** (logout). In such a way he does not allow the next user to be able to use the **MapsUsr32** functions to which he/she has access.
To perform logout, the user must simply click the Logout button. The user's logout automatically takes place if he/she remains inactive for a time longer than a pre-set intermission (paragraph 3.3.8)

Exit

Au user authorized to close the program, can terminate **MapsUsr32** by clicking the Exit button (figure 2.6). However he/she must type in his/her name and password again. If the user is not authorized to terminate **MapsUsr32**, the program does not stop. In this case an automatic logout is performed.

Minimize

An authorized user, can also temporarily close the **MapsUsr32** desktop window, by clicking Minimize button. The window minimizing is disabled by the arrival of an alarm event: the visualization of **MapsUsr32** desktop is restored.

2.2 Graphic interface

At **MapsUsr32** starting, the whole screen of the PC monitor is engaged by the program working desktop. Looking into illustration of paragraph 6.2.1, shows that **MapsUsr32** desktop can decompose into the following graphic elements:

- "Maps" area;

- "Panels" area ;

- "Installation" area;

- "Logo" / "Point search result" area;

- Toolbar;

- Navigation bars;

- "Message-To-User" box;

- Status bar;

- Events bar.

2.2.1 "Maps" area

The "maps" area dimensions are the ones imposed by Windows screen resolution immediately lower than the one set up in the Control Panel.

It is the biggest area of the **MapsUsr32** desktop, and it is located in the left upper part of the window. It shows the graphic map selected from the maps tree. Consult the paragraph 2.3.1 to know about the definitions concerning the maps. The root map is shown at the starting of the program. In presence of a state variation of a point, the content of the "maps" area is automatically switched on the map containing such a point. It's possible to disable this automatic commutation, and to modify the visualization mode of the map. For this purpose, you have to set up the variations logs levels by **MapsConf32** (paragraph 3.3.9), and also to set up the level imposed to point with **MapsGen32** (paragraph 4.5.1). The upper bar of the "maps" area visualizes the label of the displayed map. In order to display full screen the selected map, press the F2 function key of the keyboard (zoom function). In order to restore the visualization inside the "maps" area, press F2 another time. The "maps" area also allows browsing the hierarchic tree structure of the maps. To perform such browsing, click suitable "sensitive areas" of the maps called "daughter-map sensors" (figure 2.2).

Figure 2.2 – MapsUsr32: Daughter-map sensor

2.2.2 "Panels" area

It fills the right upper part of the **MapsUsr32** desktop (figure 2.3).

*The "Maps" area and the "Panels" area are completely **independent** between them. Therefore you can visualize a map whose points are not connected to the selected panel.*
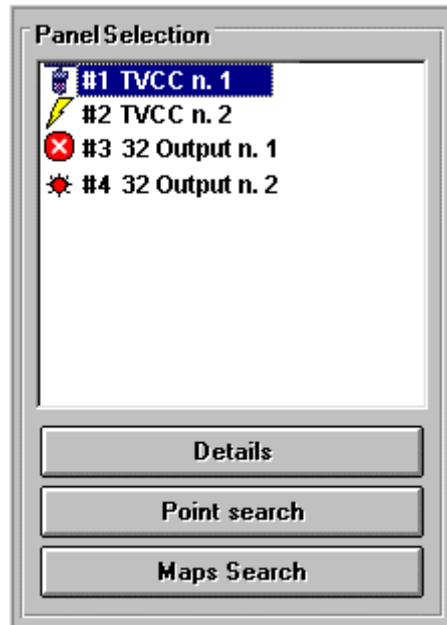
Figure 2.3 – MapsKit32:"panels" area

The meaning of the graphic elements in the "panels" area is the following.

- Box Panel selection contents the panels list. In the **MapsUsr32N** case only, the box contents only the panels that can communicate with the considered PC station (PC station and ProControllers' panels use the same TCP/IP port). You can select any panel listed in the Panel selection box: click on its identifier to do that. The selected panel has highlighted its identifier.

- The typology of the icon beside the panel's identifier, displays the state of the communication between the panel and the PC station. Table 2.1 shows the various appearances of this icon, and the corresponding meanings.

	MapsUsr32S	MapsUsr32N
	Normal conditions	Normal conditions
	The panel doesn't communicate with the PC station	The panel doesn't communicate with its ProController
	Not used	The panel's ProController doesn't communicate with the PC station
	The panel notifies a not-normal status	The panel notifies a not-normal status

Table 2.1 – MapsUsr32: panel status icon

CIDES S.R.L. – MAPSKIT32

- Clicking Details button allows displaying a detail window concerning the panel selected in the box Panel selection. The appearance of this detail window is very different, according to the type of selected panel. Main elements contained in it are:

  - visual information about communication status, between panel and PC station or ProController;
  - buttons for sending commands from the PC station to the panel;
  - visual indication about subsystems breakdowns or particular states of the panel;
  - visual information about particular technical features of the panel. This information differs in a very remarkable way from one panel type to another (all supported by **MAPSKIT32**).

  Consult paragraph 2.5.1 to obtain further information about panels' detail windows. An example of detail window is shown in figure 2.18.

- Clicking Point search button opens a form used for searching point connected to the selected panel. Consult paragraph 2.4.2 to obtain further information.

- Clicking Maps Search button opens a window visualizing the tree structure of maps. The map selected from the tree is directly displayed on screen. Consult paragraph 2.3.3 to obtain further information.

2.2.3 "Installation" area

It is placed beneath the "panels" area (figure 2.4).
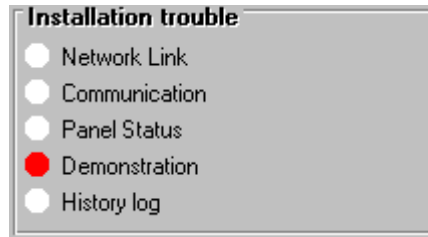
Figure 2.4 – MapsUsr32: "Installation" area

The "installation" area summarizes possible troubles of the security installation. In this area there are five warning indicators: taht corresponds to a different trouble type. The switching on (red light) of a warning indicator has the following meaning:

- Network Link – **O**nly MapsUsr32N uses this warning indicator. It shows the presence of a ProController anomaly. Consult chapter 5 to obtain more information about ProController. Under **MapsUsr32S** this warning indicator is disabled;

- Communication – In the case of **MapsUsr32S**, this indicator shows the presence of communication problems between one or more panels and the PC station. In the case of **MapsUsr32N**, this indicator shows the presence of communication problems between one or more panels and corresponding ProController(s). Verify this indication using the panel's detail window (Details button – figure 2.3);

- Panel Status – A panel (or more than one) is in a "critical" state. Verify this indication using the panel's detail window (Details button – figure 2.3);

- Demonstration – The hardware key, which prevents illegal **MapsUsr32** uses, is not present on the parallel door. The program works in demonstrative mode: most of its functions are disabled;

- History Log – **MapsUsr32** history logs reached upper limit (paragraph 2.7.2).

2.2.4 "Logo" / "Point search result" area

It's placed beneath the "installation" area and it's normally empty. It can be engaged by a logo image, selected and inserted by **MapsGen32** (section 4.7). The same area is used if, a search on maps by the command Point search (figure 2.3, paragraph 2.4.2) gives negative result. In this case, a blinking red button, which takes back a message concerning the result of the point search, is shown. In presence of an inserted logo, the button can superimpose the logo image, as in the figure 2.5. Click the button to remove it from the visualization (only logo image is displayed).
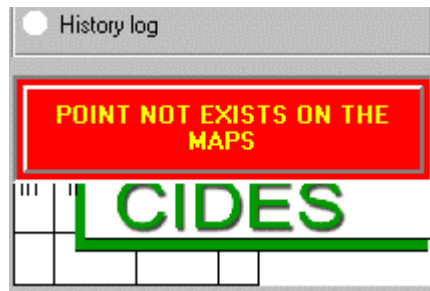
Figure 2.5 - MapsUsr32: "Logo" / "Point search result" area

2.2.5 Toolbar

Figure 2.6 shows the command buttons giving access to **MapsUsr32** functions. The Minimize button is actually placed in the status bar (figure 2.10). Other buttons constitute the **MapsUsr32** toolbar, placed in the left upper part of the program desktop.

Figure 2.6 – MapsUsr32: command buttons

To each button it's associated a tool-tip, shown when the mouse cursor is superimposed to the button area. Tool-tips and activated functions corresponding to command buttons are the following:

Login / Logout – It allows the user to open or close his/her work session and pass the supervision duty to the next user (paragraph 2.1.2).

Historical Log – It allows an authorized user to have access to the history logs, a database containing all the events registered by the system (paragraph 2.7.2).

Show hidden detectors – It allows an authorized user to manage the visualization of points having activated the flag "hide object". This button can assume two aspects: "a" = points not show on maps; "b" = points shown on maps.

Exit – It allows an authorized user to terminate **MapsUsr32** execution.

On-Line Log – It allows an authorized user to have access to the on-line events and alarms database, so as to allow him/her to acknowledge the pending alarms. During the signalling of an alarm event, the background button assumes a blinking red colouring ("b"). Consult next paragraphs to obtain more information.

Minimize – It allows an authorized user to minimize **MapsUsr32** desktop window. Actually, it's shown only the program title bar. To restore the normal visualization, double-click this bar. The button is not present if the user is not authorized to minimize **MapsUsr32** desktop window.

2.2.6 Navigation bars

The navigation buttons are arranged into two separate bars, placed beneath the "maps" area. These buttons allow the user to navigate into the tree hierarchic structure of the maps (paragraph 2.3.1). The first bar (figure 2.7), usable for the "horizontal" navigation among the maps, is placed on the left-hand side of Message-To-User box.

Figure 2.7 – MapsUsr32:" horizontal" maps navigation bar

The "horizontal" navigation buttons allow the user to display another map, having the same hierarchic level as the one currently displayed.

The second bar (figure 2.8), usable for the "vertical" navigation among the maps, is placed on the right-hand side of Message-To-User box.

Figure 2.8 – MapsUsr32: "vertical" maps navigation bar

The "vertical" navigation buttons allow the user to display another map, having a different hierarchic level from the one currently displayed.

2.2.7 Message-To-User box

It is placed between the maps navigation bars (figure 2.9).
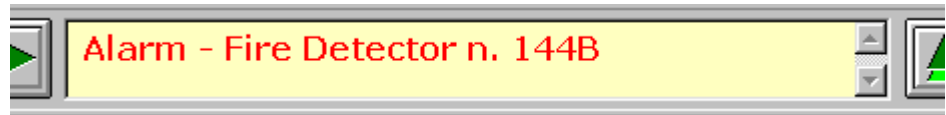
Figure 2.9 – MapsUsr32: Message-To-User *box*

When a point goes into a critical state (alarm, pre-alarm or fault), the message corresponding to this state of the point is shown in the box Message-To-User of **MapsUsr32** desktop (figure 2.9).

MapsGen32 allows users (*Service* or *Manager* level only) to set up this association between a message and a critical state of a point (paragraph 4.5.1). The messages are contained in a database; **MapsGen32** allows users (*Service* or *Manager* level only) to freely build and modify such a database (paragraph 4.5.7).

2.2.8 Status bar

It's placed in the right upper part of the **MapsUsr32** desktop (figure 2.10).
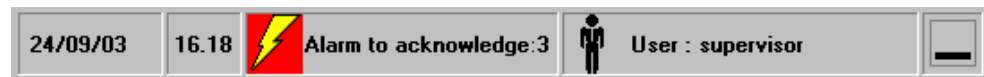
Figure 2.10 – MapsUsr32: Status bar

It is composed by four or five boxes, in which following (from left to right) elements appear:

- current date;
- current time;
- number of pending alarms (= not yet acknowledged);
- name of user working on **MapsUsr32**;
- Minimize button (paragraph 2.2.5)

2.2.9 Events bar

It's the lower bar of the **MapsUsr32** desktop (figure 2.11). It displays the most recent event recorded by the supervision system.

Figure 2.11 – MapsUsr32: Events bar

2.3 Maps management

MapsUsr32 shows the status of the security installation, using a structure of simple graphic entities called *maps*. **MapsUsr32** is able to show a graphic map at a time (in the "maps" area of its desktop). The term *graphic map* simply refers to a set of installation's points (and references to corresponding panels) and corresponding background image. **MapsGen32** allows splitting up the security installation into its graphic maps. About the criterion to adopt for this subdivision, the user is free to use what he/she considers as more appropriate. In theory, the security installation could be graphically displayed using only one map. But, if there are a large number of points, the visualization offered by **MapsUsr32** would be not clear. A criterion commonly used, is setting up a graphic map inclusive of all the points placed in defence of the same room (or portion of it). In this case, it's instinctive to use the room location plan as a background image.

2.3.1 Maps hierarchy

The graphic maps are arranged into a tree-shaped hierarchic structure. By using **MapsGen32**, the lower order maps are connected in cascade starting from the principal map called *root-map*. The *daughter-maps* of a given map are the lower order maps connected to it. The given map is therefore a *mother-map*. The daughter-maps of a same mother-map are *sister-maps* among themselves. A map having no daughter-maps is a *leaf-map*; as regards the root-map it occupies indeed the opposite extremity of the tree.
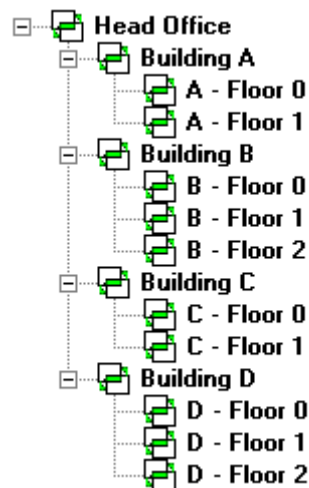
Figure 2.12 displays a model of graphic maps tree. It shows a hypothetical subdivision in maps, arranged for the control system of a head office composed by four two-storied or three-storied buildings. This visualization is drawn by the **MapsGen32** work desktop. "Head Office" is the root-map of the tree; it has four daughter-maps: "Building A", "Building B", "Building C" and "Building D". These daughter-maps (of the 1st order) are, in their turn, mothers of other daughter-maps (of the 2nd order). For instance, the map "Building C" is mother of the maps "C - Floor 0" and "C - Floor 1". These last ones, being no mothers of other maps, are also leaf-maps.

Figure 2.12 – MapsUsr32: a model of graphic maps tree

2.3.2 Navigating the maps

By running through the maps tree, it's possible switching to the wished graphic map the **MapsUsr32** visualization. You can perform this "navigation" through the maps in three different ways:

1. by using daughter-map sensors (figure 2.2) and mouse keys (left and right);

2. by clicking horizontal and vertical navigation bar (figures 2.7 and 2.8);

3. by using keyboard's "arrow keys" (←, →, ↑, ↓, ↖ (Home), End) and their combinations with CTRL key.

The navigation through the maps must respect the hierarchic tree. It follows that:

- you can directly pass from a higher level map to a lower level one (and vice-versa) only when they are a mother-map and a daughter-map of its. If there is no direct link between the maps, you have to run through the maps tree;

- you can directly pass from a map to another, of the same order, only if they are daughter-maps of the same mother-map (= sister-maps) and they are next in the tree. Otherwise you have to run through the maps tree;

The first map or the last map of a certain maps set, are terms relative to the maps tree structure. For instance, the first daughter-map of a certain mother-map, is the one you arrive by browsing the tree, starting from the root-map, passing from the mother-map and following the first branch provided by the tree. With reference to Fig. 2.13, "B – Floor 0" is the first daughter-map of "Building B", while "B – Floor 2" is the last one. In an analogous way, you have to consider relatively to the maps tree structure, the definitions "immediately precedent" and "immediately following".

With reference to the tree of the figure 2.12, you can directly pass from the map "B – Floor 0" to the map "B – Floor 1" and vice-versa. You can also directly pass from the map "B – Floor 2" to the map "Building B". On the contrary, if you want to pass from map "B – Floor 1" to map "D – Floor 0", you have to run through the maps tree. For instance, you may follows this navigation route: "B – Floor 1" → "Building B" → "Building C" → " Building D" → "D – Floor 0".

The daughter-map sensors are useful to switch the **MapsUsr32** visualization from a mother-map to a daughter-map of its. If **MapsUsr32** shows a map having one or more daughter-maps, on such map the corresponding daughter-map sensors are present. A daughter-map sensor is only a sensitive portion of the map acting as link to one corresponding daughter-map. When the mouse cursor is placed upon a daughter-map sensor, a tool-tip showing the name of the corresponding map appears on-screen. By clicking on a daughter-map sensor, you can visualize the corresponding map. To show the mother-map, you have to right-click the daughter-map background. Obviously, a leaf-map doesn't show any daughter-map sensor.

Using the navigation bars is more powerful than using daughter-map sensors. Learning by heart the buttons' functions is not essential; by placing the mouse cursor upon each button, a tool-tip describing the function is shown. Click a button to run through the maps tree.

Table 2.2 summarizes the navigation functions made available by bars buttons. You can activate the same functions using keyboards; table 2.2 summarizes also the key combinations equivalent to navigation buttons.

Button	Keyboard Equivalent	Function
	CTRL+ ←	Display the first (as regards the tree structure) sister-map of the one currently displayed
	←	Display the immediately preceding (as regards the tree structure) sister-map of the one currently displayed
	→	Display the immediately following (as regards the tree structure) sister-map of the one currently displayed
	CTRL+ →	Display the last (as regards the tree structure) sister-map of the one currently displayed
	↖ (Home)	Display the root-map
	↑	Display the mother-map of the one currently displayed
	↓	Display the first (as regards the tree structure) daughter-map of the one currently displayed
	End	Display the first leaf-map, encountered, by browsing the maps tree, starting from the map currently displayed and always using the first available branch

Table 2.2 – MapsUsr32: functions of navigation bars buttons

2.3.3 On-map quick positioning

Besides providing the navigation functions, **MapsUsr32** can directly display the wished map. For this purpose, click Maps Search button placed in the "panels" area (figure 2.3): the window Maps Search (figure 2.13) appears on the screen.
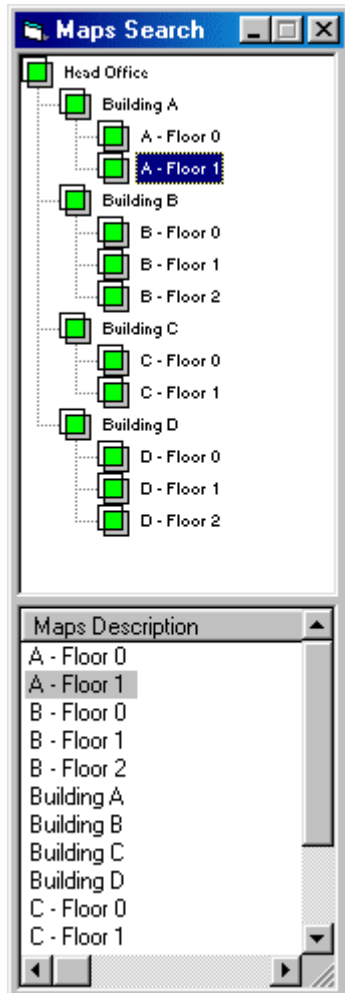
The Maps Search window is divided into two parts. The upper part graphically shows the maps tree: the status of the maps is real-time brought up to date. The lower part shows, in alphabetical order, the list of all the maps. The map currently displayed by **MapsUsr32** is highlighted.

The Maps Search window can be resized and moved on the **MapsUsr32** desktop, in order to fit it to user's visualization demands.

In order to switch the **MapsUsr32** visualization on a wished map, click such map in the upper or lower part of the Maps Search window.

Visualizing a new map or receiving a point status variation (for instance alarm or breakdown) real-time brings up to date the Maps Search window.

Figure 2.13 – MapsUsr32: Maps Search *window*

2.4 Points management

Points are the sensitive elements of a security installation and also the basic component parts of the graphic maps.

Points are all the devices placed in defence of the rooms overseen by the security installation and connected to panels supervised by PC stations. As to the point types used by **MapsUsr32**, refer to this handbook's parts concerning **MapsGen32** use and procedures to set up graphic maps.

The points placed on the selected map, are displayed (in the "maps" area of **MapsUsr32**), as coloured icons. If the selected map has daughters-maps, icons of the corresponding daughter-map sensors are also displayed.

The graphic appearance of the point's icons emphasizes particular features:

- the icon shape identifies the point typology. Figure 2.14 shows the types of point (in normal status) managed by **MapsUsr32**.

Figure 2.14 – MapsUsr32: point icons

From left to right: fire detector, gas detector, fire button, relay, transponder, generic detector, door contact, window contact, input, horizontal barrier, vertical barrier, movement detector, CCTV command

- in the cases of fire detector and gas detector, you may obtain further information about the point, by observing the shape assumed by the mouse cursor when it's placed upon the point's icon:

The mouse cursor, when placed upon the icon of a *fire detector*, assumes the appearance of an arrow followed by a characters string and a graphic symbol.

The characters string shows the detector technology:

O	$\rightarrow$	optical (smoke) detector
T	$\rightarrow$	thermic detector
F	$\rightarrow$	flame detector
H_2O	$\rightarrow$	water detector

The graphic symbol shows the detector assembly:

no symbol at all $\rightarrow$ standard assembly
upwards vertical arrow $\rightarrow$ double-ceiling assembly
downwards vertical arrow $\rightarrow$ floor assembly
square $\rightarrow$ air pipe assembly

The mouse cursor, when placed upon the icon of a *gas detector*, assumes the appearance of an arrow followed by a characters string. The string is constituted by "G" letter and an abbreviation representing the gas type the sensor can detect:
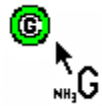
$_{CO}G$	$\rightarrow$	Carbon Monoxide detector
$_{CH4}G$	$\rightarrow$	Methane detector
$_{GPL}G$	$\rightarrow$	Liquefied Petroleum Gas (L.P.G.) detector
$_{H2}G$	$\rightarrow$	Hydrogen detector
$_{O}G$	$\rightarrow$	Monatomic Oxygen detector
$_{NH3}G$	$\rightarrow$	Ammonia detector
$_{VB}G$	$\rightarrow$	Petrol Fumes detector
$_{GS}G$	$\rightarrow$	Special Gases detector

- the main colour of the icon shows the current status of the point (paragraph 2.4.1)

- if the point is in alarm, pre-alarm or fault status, the central part of the icon may be dark green-coloured or light blue-coloured, rather than white-coloured (default colour). The presence of this "secondary colour" for the icon, shows that the point, after experiencing the alarm, pre-alarm or fault status, was manually excluded by the user (dark green), or silenced by the panel (light blue);

- the tool-tip appearing when the mouse cursor is placed upon the icon of the point, gives a short description of the point. Such description may be the standard one, "No Description" automatically produced by **MapsGen32**, or may be a

"customized" description. **MapsGen32** allows the user to customize the point descriptions (paragraph 4.5.1).

2.4.1 Point popup menu

When **MapsUsr32** visualizes the wished map, the points and the daughter-map sensors placed on it are displayed in light green-coloured, if in normal conditions.

By right-clicking on the icon of a point, a Point Popup Menu opens. The appearance of this menu depends strongly on the nature of the point and on the type of panel to which the point is connected. The figure 2.15 shows an example of Point Popup Menu. For the point in the example, the connected panel provides exclusion, isolation and test commands. For information concerning the commands available on a Point Popup Menu, refer to the corresponding panel documentation.
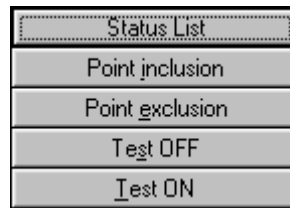
Figure 2.15 – MapsUsr32: Point Popup Menu

For instance, if you click Point exclusion command, the panel ignores signalling originated from the point. This is useful if you suspect that the point is a source of false alarms. The Point inclusion command performs the inverse operation.

CCTV activation commands can be automatically produced by particular states of pre-defined points ("crossed-commands").

As another example, if the point is a CCTV command, the Point Popup Menu includes the command Activate Command No. … This command allows the operator to send a command of manual CCTV activation. The command number is specified when setting up of the point parameters (paragraph 4.5.1), and it is concerning the corresponding video matrix interface (figure 3.8).

Selecting Status List command in the Point Popup Menu, window Status List opens (figure 2.16). It shows the chromatic conventions adopted to emphasize the status of the point. It also emphasizes (status caption red-coloured) the point current status.

The icon of each point is marked by its principal colour and by the colour of its central part. The principal colour identifies the pre-existing status of the point. The colour of the central part shows what kind of operation was performed on the point by the PC user or by the connected panel.

Main colour of the icon:

- red: point in alarm status;
- brown: point in technical alarm status;
- violet: point in pre-alarm status;
- yellow: faulty point;
- blue: point in test;
- dark green: point in normal status manually excluded by the user;
- grey: point in normal status not inserted (if this state is managed);
- light blue: point in normal status silenced by the panel;
- light green: point in normal status or inserted (intruder detector);
- light green with "N" character: active point not inserted.

Colour of the central part of the icon:

- white: inserted point;
- dark green: point in non-normal status manually excluded by the user;
- light blue: point in non-normal status silenced by the panel.

The Status List *window shows the chromatic conventions concerning all the possible states for all the points. For some points, some states can be senseless, being correlated to features not provided by the corresponding panels. For instance, a silenced state have no possibility of coming true for a point connected to a panel that doesn't offer the silencing command.*
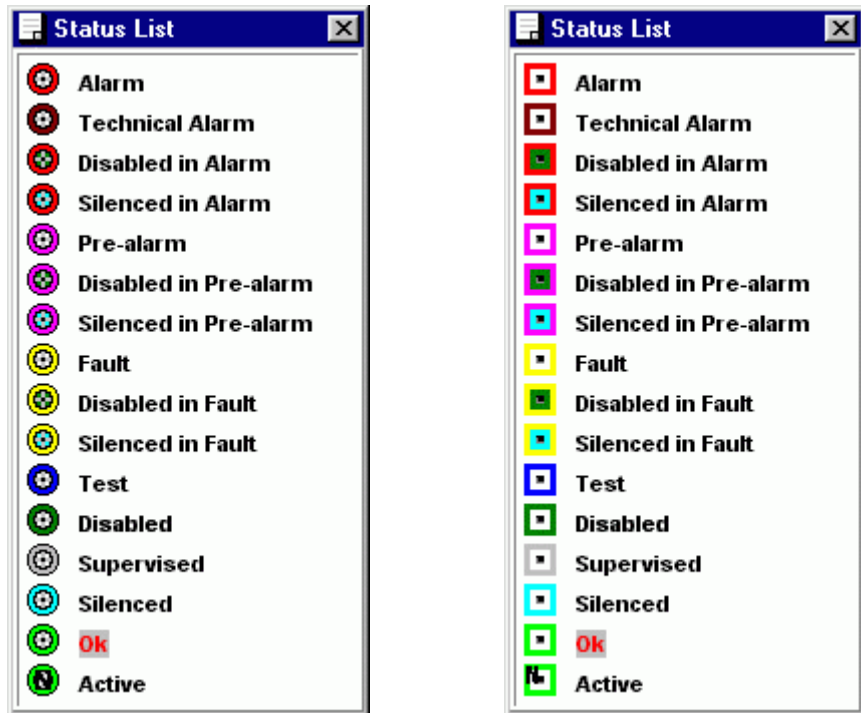
Figure 2.16 – MapsUsr32: Status List *window for a fire detector and a fire button*

2.4.2 Point search

You can look on the maps for a point connected to the selected panel (in the "panels" area - figure 2.3), by means of Object search window (figure 2.17).

First of all, select in the OBJECT box the type of object to be searched (the type depends on the panel connected to the point). According to the type of object, insert the value or the couple of values identifying it. You may use only the mouse to insert the requested data, by using the virtual numerical keyboard on the window.

Figure 2.17 – MapsUsr32: Object search *form*

After having inserted the correct data in the Object search window (the selected panel appears in the window heading), click the button Search to start searching the point.

If the search is successful, the map containing the point is automatically shown, and the point icon is emphasized on screen (blinking icon).

If instead the search is unsuccessful, a red blinking button, labelled with an error message (figure 2.5), appears in the area "Logo"/"Point search result".

2.5 Panels monitoring

The part of the **MapsUsr32** desktop, used for monitoring and visualizing the panels' breakdowns is the one composed by the "panels" area (figure 2.3) and the "installation" area (figure 2.4). The "installation" area gives a summarizing view of the panels' anomalies.

Information contained in this area show if:

- there are ProControllers' anomalies (**MapsUsr32N** only);

- there are anomalies in the communication between one or more panels and the PC station (**MapsUsr32S** only), or in the communication between one or more panels and corresponding ProControllers (**MapsUsr32N** only);

- there are a "critical" state in one or more panels.

To obtain more information about the state of panels, you have to access the corresponding detail windows. For this purpose, click the Detail button for the selected panel. The state of the communication between a panel and the PC station, is already displayed by the typology of the icon (table 2.1) beside the panel's identifier (box Panel selection – figure 2.3).

2.5.1 Monitoring panel's status and communication

To obtain detail information, useful to monitor a panel, work as follows:

- select the wished panel from box Panel selection in the "panels" area of the **MapsUsr32** desktop (figure 2.3). To do that, simply click the panel's identifier. The selected panel has its identifier highlighted;

- click the Detail button, also placed in the "panels" area (figure 2.3). A detail window for the selected panel opens. The figure 2.18 shows such window in the case of a video matrix interface card type IC32OTVCC. The detail window for a panel of different type, has a basic structure like the preceding one, with differences as regards detail parameters.
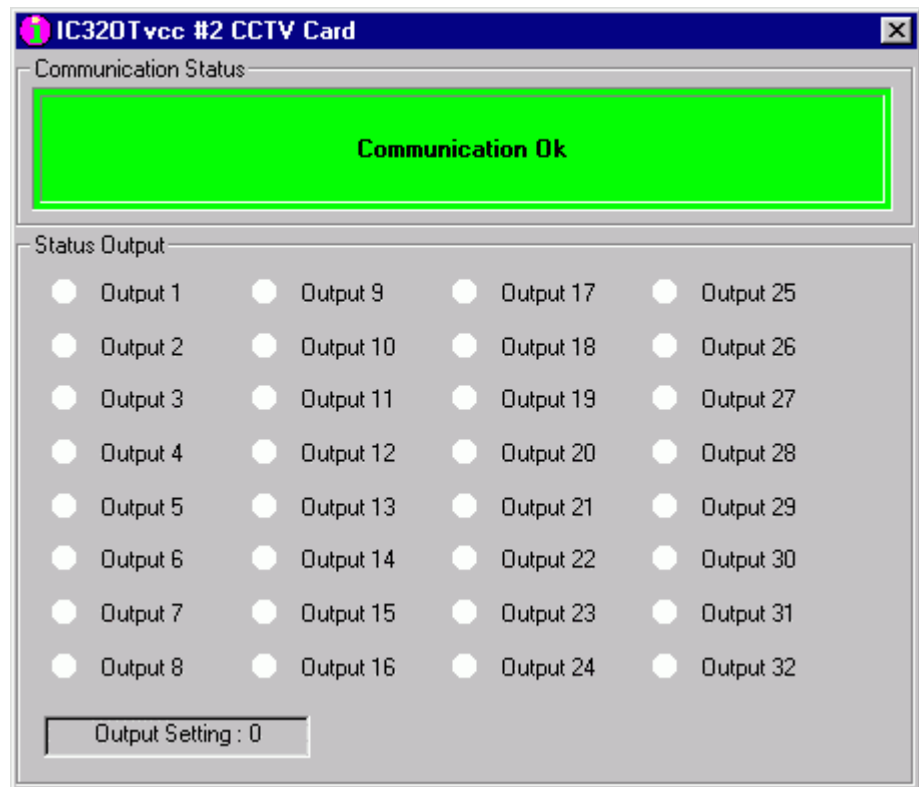
Figure 2.18 – MapsUsr32: IC32OTVCC card detail window

The detail window for the selected panel allows obtaining detailed information.

- The status of the communication, with the PC station (**MapsUsr32S**) or with the ProController (**MapsUsr32N**) is displayed in Communication Status box.

- Buttons placed into the section Available Commands shows the commands the PC user can send to the selected panel. The presence and the appearance of such buttons depend on the type of selected panel.

- The section Panel Status is usually constituted by a warning lights set. If one of these lights turns on (as a consequence of some panel anomalies), the warning light Panel Status, placed in "installation" area (figure 2.4) of **MapsUsr32** desktop turns on too. It is one of the already mentioned "critical states" of the panel.

- Possible other sections placed into the detail window, refer to more specific features of the selected panel. The description of such detail parameters goes beyond the purposes of this handbook.

2.6 Alarm events

The management of the alarm events provided by **MapsUsr32** is the following:

- the alarm event signalling, on the PC station, is provided by: a) acoustic means: bell and/or vocal messages reproduced by the PC; b) optical means: blinking On-Line Log button; graphic maps with icons of the points highlighted by alarm colour (possibly blinking);

- the procedure which must be adopted in order to cease the alarm is composed by three steps; each step must be executed in the following chronological order:

  1. acknowledging pending alarms and silencing the bell (or vocal message) on the surveillance station. By suitable configuration of **MapsUsr32** software parameters, it's possible to obtain bell silencing without having to acknowledge the pending alarms (paragraph 3.3.8);

  2. identifying points in alarm status and executing the suitable countermeasures (if the alarm event is originated from a point);

  3. restoring the security installation to the normal working conditions.

2.6.1 Signalling alarms. Variations logs

Suppose that the alarm event is originated from a status change of a point. The configuration set up in the **MapsConf32**'s Variations logs level form (paragraph 3.3.9) establishes the way **MapsUsr32** shows the point's status. In fact:

- a status variation having a priority level equal to zero does not determine the automatic visualization of the map containing the point suffering the variation

- a status variation having a priority level higher than zero, determines the automatic visualization of the map containing the point suffering the variation. However, this automatic switching on the map is disabled if the point is set up in order to have a variation level equal to zero (paragraph 4.5.1)

- in presence of status variations originated from several points, **MapsUsr32** automatically shows the map corresponding to the highest level variation. If two or more variations reach the highest level, the visualization switches on the map corresponding to the most recent variation. If all the status variations registered by the system have level zero, there is no automatic map visualization switching

- the icon of a point suffering a status variation, assumes the colour corresponding to the new status, and blinks or not, according to the configuration set up in the **MapsConf32**'s Variations logs level form. This chromatic indication is

transferred, by means of daughter-map sensors, to the upper-ordered maps connected to the one containing the point suffering the variation

If the status variation leads the point to a status of alarm, pre-alarm or fault, the message corresponding to such critical status (paragraph 4.5.1) is showed into the Message-To-User box (figure 2.9).

A status variation of a point can also pilot (if opportunely set up) a CCTV activation crossed-command. Therefore displaying television images on monitor CCTV can also reveal a status variation of a point.

2.6.2 Restoring security installation

To restore the security installation after an alarm event, the PC user has to use On-Line Log and Details (placed into "panels" area) buttons. Buttons' location on the **MapsUsr32** desktop is respectively shown by the figure 2.6 and 2.3.

If the alarm event is originated from a status variation of a point, **MapsUsr32** can automatically (or not) show the map containing the point. The point's icon assumes the colour corresponding to the new status.

The restoring procedure can be schematised as follows:

On-Line Log

- acknowledge the alarm event. To do that, the user must, first of all, click the On-Line Log button. The window Alarm and Logs List opens, showing the Alarms form (figure 2.19).
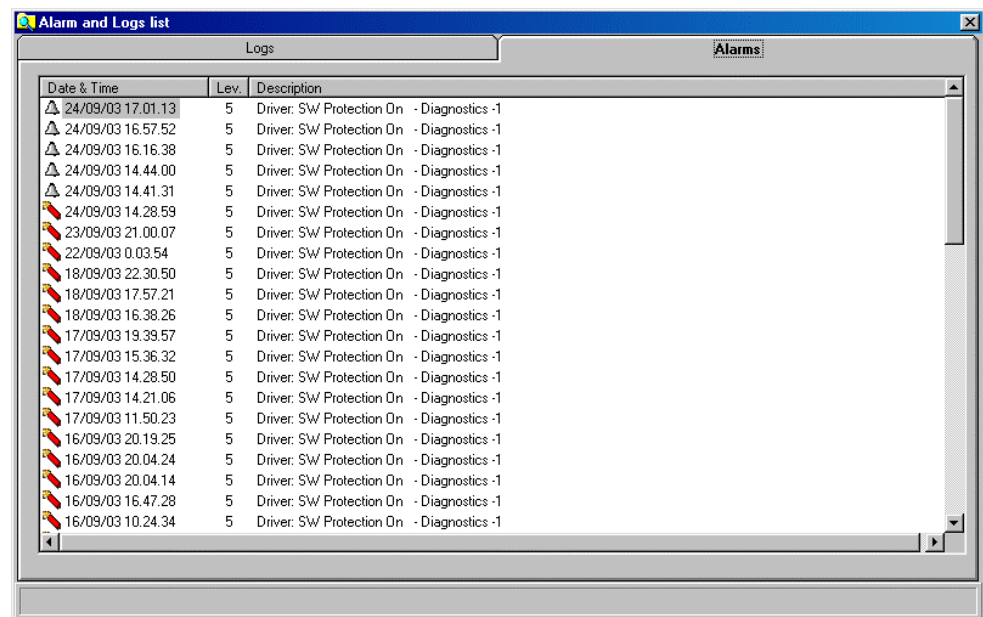
Figure 2.19 – MapsUsr32: Alarm and Logs List *window,* Alarms *form*

To acknowledge the pending alarms (identified by the bell-shaped icon, and also shown in the **MapsUsr32** status bar) double click the name of one of such pending alarms. The Alarms Acknowledge window opens (figure 2.20).
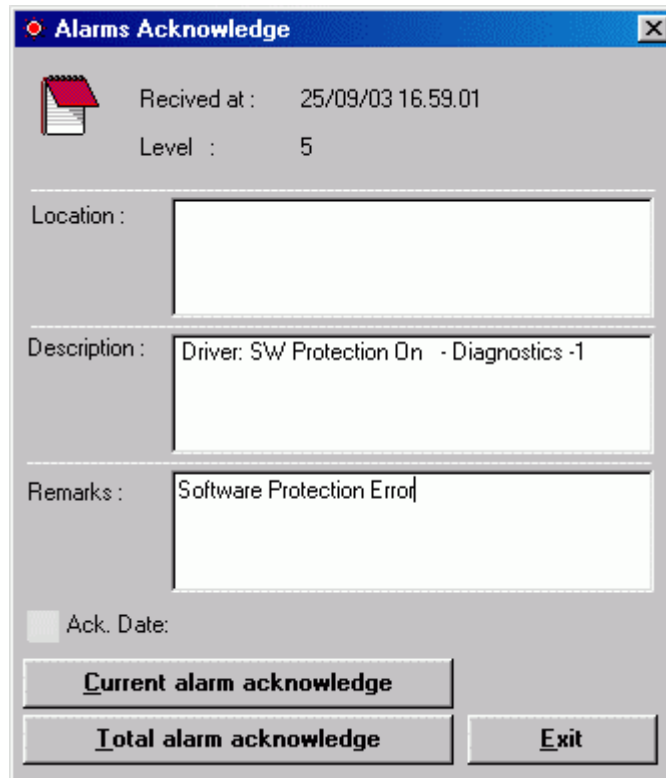
Figure 2.20 – MapsUsr32: Alarms Acknowledge *window*

To acknowledge the current alarm only, click the Current alarm acknowledge button. To acknowledge all the pending alarms, click the Total alarm acknowledge button. A tick displayed on the left of Ack. Date reports the successful acknowledging. On the right-hand side of Ack. Date, are displayed user name and acknowledging date & time. The acknowledging user can type a remark of its in the Remarks box. To close the Alarms Acknowledge window click the Exit button. The acknowledging of all pending alarms stores them (along with possible user's remarks) in the **MapsUsr32**'s historical database (section 2.7). Furthermore, it silences the PC station alarm bell (with the exception of a different setting, by which the silencing is simply obtained by clicking the On-Line Log button) and stops red blinking of the On-Line Log button;

• perform the suitable operations at points' level (for instance exclude a point in alarm status). Use commands possibly available in the Point Popup Menu (figure 2.15), to solve the alarm event;

• perform the suitable operations at panels' level (for instance silence the possible alarm sirens);

- after having solved the alarm event, restore as follows the working of the panel suffering the event:

1. in the Panel selection box (**MapsUsr32**'s desktop "panels" area) select the panel which the alarm event comes from;

2. click the Details button to open the selected panel's detail window;

3. restore the selected panel to its initial conditions (reset). To do this, according to the type of panel, user either have to click a suitable command button on the detail window, or press a suitable key on panel's cabinet. As a result of the panel's reset, points excluded by the user are disconnected from the security installation; not excluded points go back to their normal status.

2.7 Events' logs

All the events concerning the security installation, either alarm events or system events, are stored in two different logs:

• the on-line log keeps in memory the most recent events registered by the system;

• the historical events log stores the events in a permanent way, until it reaches its upper limit.

2.7.1 On-Line events log

On-Line Log

To access the on-line log, click the On-Line Log command button.

The window Alarm and Logs List opens (figure 2.19): this window includes two tab-driven forms: Alarms form and Logs form.

The Alarms form shows the list of all the most recent alarm events: the list includes all the points' status variations and all those system events having a warning level (set up by **MapsConf32**, paragraph 3.3.5) greater than zero. Each alarm event is listed along with its date, its time, its warning level and a short description. The alarm events marked by a bell-shaped icon are the ones not yet acknowledged (= pending alarms). In the Alarms form, the pending alarms are listed by first, and they are hierarchically ordered according to their warning levels. At a parity of warning levels, the most recent pending alarms are listed by first. The other alarm events listed in the Alarms form are the ones already acknowledged.

In the Logs form, all the base events (warning level equal to zero) and all the alarm events (warning level grater than zero) are chronologically ordered; the most recent events appear on the top of the list. Each event is described by date and time when it happened and by a short text description.

Selecting an event concerning a point equipped with a descriptive text (paragraph 4.5.1), displays this descriptive text in the lower bar of the Alarm and Logs List window.

To switch between the Alarm and Logs List window's forms, click the corresponding tabs.

To close the Alarm and Logs List window, click the Windows closing button.

2.7.2 Historical events log

Historical Log

To access the historical log, click the Historical Log button. History logs window opens, as shown in figure 2.21.
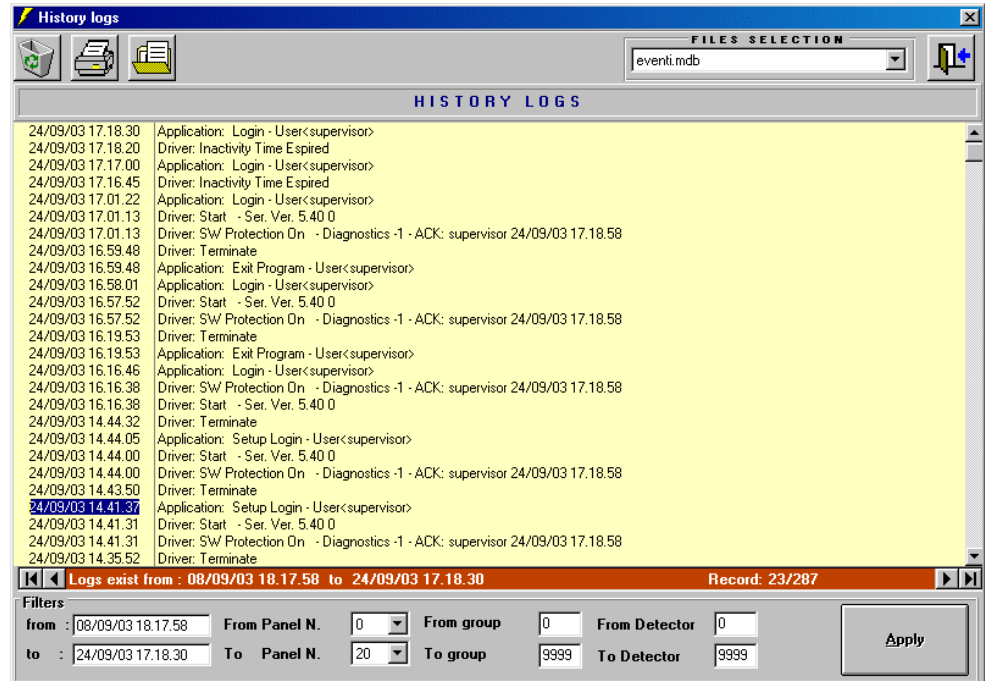
Figure 2.21 – MapsUsr32: History logs *window*

Each registered event constitutes a database's record. Each event is identified by a short text description and by its date and its time. It's possible to browse the list by using the scroll bars or by clicking the record browsing buttons, placed in the lower strip of the window.

Usually, the current historical log (eventi.mdb) is displayed. When its records' number reaches the upper limit set up with **MapsConf32** (paragraph 3.3.8), the system copies all the events in a backup file and empties the current historical log. The name assigned to the backup file begins with "ev" and is followed by couples of digits which are year, month, day, hour, minutes and second of backup creation. For instance, the ev020625121533.mdb backup file was created on June 25th, 2002 at 12:15:33. The PC-user is informed about these operations, by switching on (red light) the warning indicator History log in the "installation" area (figure 2.4).

To access a historical backup log, select its name in the FILES SELECTION combo box. After having loaded a historical backup log, it's possible to display or to print events, applying filters on the records' fields. It's not allowed to remove events from a historical backup log.

Selecting an event concerning a point equipped with a descriptive text (paragraph 4.5.1), displays this descriptive text in the bar below to the command buttons. In absence of such a description, the bar displays the heading HISTORY LOGS.

The functions activated by buttons placed into the History logs window are the following:

Delete the whole current historical log (eventi.mdb), or delete only the events included among the filters set up by the user. The user must be authorized to perform deleting.

Print (with preview) the whole selected historical log, or print only the events included among the filters set up by the user.

Export, in a Microsoft Access97 format file, the whole selected historical log, or export only the events included among the filters set up by the user. The file name must begin with "ev".

Close the History logs window.

The user can set up search filters on the events stored in the selected historical log. To filter the data stored in the log, the user must specify:

- the time interval to be considered
- the panels interval to be analysed
- the group interval
- the detector interval.

To set up the wished filtering, specify the above-mentioned intervals in the History logs window's boxes (Filters section). To activate the filtering, click the Apply button.

2.8 Program exit
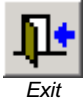
Exit

A user authorized to end **MapsUsr32**'s execution can do that by clicking the Exit button (figure 2.6). **MapsUsr32** asks the user to insert its name and its password in order to verify if he/she is allowed for program ending.

Minimize

In order to close **MapsUsr32**'s window, keeping its running in the background, the authorized user can click the Minimize button (figures 2.6 and 2.10).

Chapter

3

3 MAPSCONF32

3.1 Preliminary considerations

The **MapsConf32S** program module allows to set up all the **MapsUsr32S** options.

In the same way, **MapsConf32N** allows to set up all the **MapsUsr32N** options.

In practice, the two program modules differ only in the setting-up procedures about communication channels (between panels and PC) and about panels. Therefore such configuration operations are described by different paragraphs. The paragraphs 3.3.1 and 3.3.3 refer only to serial version (**MapsConf32S** only). The paragraphs 3.3.2 and 3.3.4 refer only to network version (**MapsConf32N** only). The other procedures are identical for the two versions: in these cases, we use the generic word **MapsConf32** to refer to both configuration module versions.

We ask you to remind that:

- the serial version of **MAPSKIT32** supports only one PC station. Therefore, the settings imposed by **MapsConf32S** refer to this station only;

- the network version of **MAPSKIT32** can support several PC stations, connected to the panels via an Ethernet network. Therefore, the settings imposed by **MapsConf32N** refer only to the PC station the program is running. In case of several PC stations, you have to install and to run **MapsConf32N** on each station. The settings imposed by **MapsConf32N** must furthermore be congruent with the ProController configurations imposed by **Maps32CardProg**.

A hardware key on parallel port protects the MapsConf32 use.

Base functions provided by the system configuration modules are the following:

- enabling/disabling serial ports (acting as communication channels among panels and the PC station), and setting up communication parameters (**MapsConf32S** only);

- enabling/disabling the net port (acting as a communication channel among panels and the selected PC station), and setting up communication parameters (**MapsConf32N** only);

- enabling/disabling panels (connected to the PC station by serial channels) and displaying the communication status (**MapsConf32S** only);

- enabling/disabling panels (connected to the selected PC station by the selected net port) and displaying the communication status (**MapsConf32N** only);

- enabling/disabling the connection between a panel and its ProController (**MapsConf32N** only);

- setting up the warning level of each system event, allowing also to activate or deactivate the alarm bell or the vocal message when such event happens;

*The functions of **MapsConf32** made available to a user, may be of different amplitude, according to the use's restrictions applied to the user.*

- managing in a complete and flexible way the database of users who can access **MapsUsr32S** and **MapsConf32S** (**MapsConf32S** only), or **MapsUsr32N** and **MapsConf32N** (**MapsConf32N** only). Storing user's name and user's password. Customizing the user's rights to access the functions provided by the programs;

- setting up a Black List on selected points or groups connected to one or more panels;

- setting up suitable **MapsUsr32** working parameters (automatic logout, on-line printing, etc.);

- setting up the priority levels of status variations, so as to establish how **MapsUsr32** must behave (towards maps switching and icons blinking) in presence of points in anomalous status.

*For a few operators authorized to use **MapsConf32**, some of the above-mentioned functions may be not available. This happens because **MapsConf32** allows imposing use restrictions on it. By using **MapsConf32**, upper hierarchic level users can impose **MapsConf32** use restrictions to lower hierarchic level users.*

At the program starting the User verify window opens (figure 3.1), asking the user to insert his/her name and his/her password.
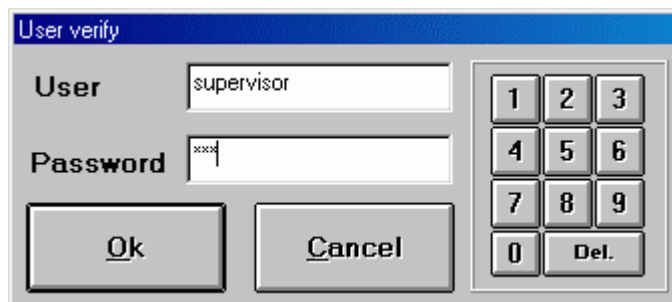
Figure 3.1 – MapsConf32: User verify *window*

The user authorized to run the program inserts his/her name in the User box and his/her password in the Password box. It's possible to pass from an edit box to another by clicking into, or by using the keyboard TAB key. After having inserted the correct name and the correct password, either click the OK button, or press the ENTER key, or press the keys combination ALT+O. If the name and/or the password are not correct, **MapsConf32** requires another data insertion.

The user not authorized to run the program can close the User verify window either by clicking its Cancel button, or by pressing the ESC key or the keys combination ALT+A. The execution of any of these operations runs **MapsConf32** with all the use's restrictions activated. **MapsConf32** visualizes only an informative form, as shown in figure 3.2.

Figure 3.2 – MapsConf32: Info *form*

3.2 Graphic interface

A window labelled Setup MapsUsr32/S (serial) or Setup MapsUsr32/N (network) constitutes the **MapsConf32** graphic interface. Such window is divided into eight forms: the user can access a form by clicking the corresponding button. The for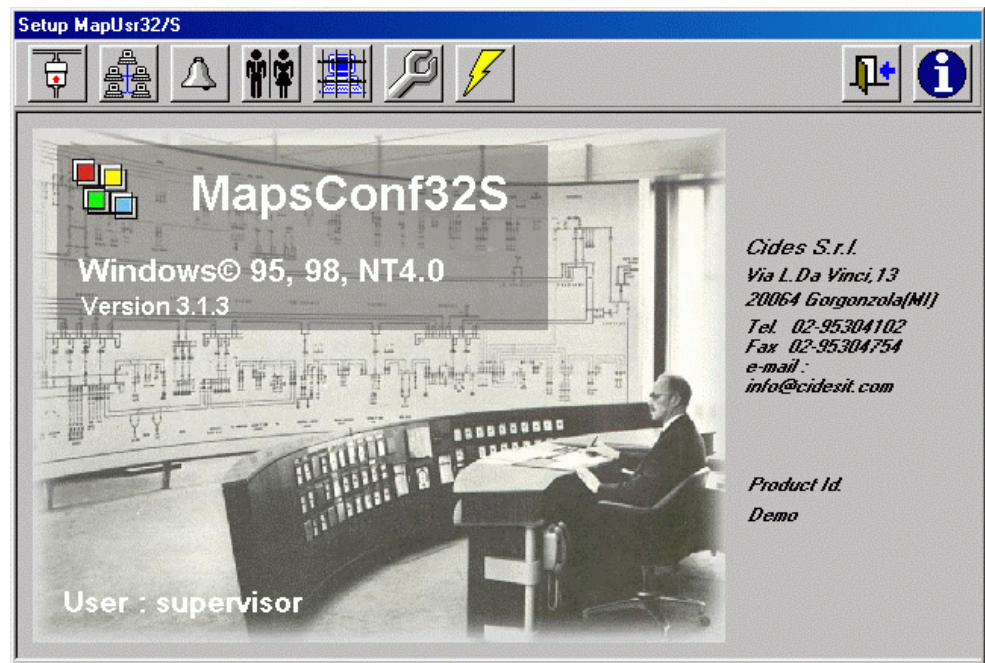m displayed by default is the information one (figure 3.2). The other forms are labelled: Communication Channels Setup, Panel Setup, Alarm Setup, Users Management, Maps Point Black List, Software Parameters and Variations Logs Level.

By selecting the suitable form, user can access to the functions provided by **MapsConf32**. To select a form click the corresponding button placed on the program's toolbar (shown in figure 3.3).

Figure 3.3 – MapsConf32: toolbar

The buttons' functions are the following (every button is equipped with a tool-tip):

Display Communication Channels Setup form

Display Panel Setup form

Display Alarm Setup form

Display Users Management form

Display Maps Point Black List form

Display Software Parameters form

Display Variations Logs Level form

Exit **MapsConf32** (end program running)

Visualize About form (information form)

On each form there some command buttons (as Add, Enable, Disable, etc.); to activate such commands the user can use the mouse or the keyboard:

- by the mouse: simply click the button;

- by the keyboard: press the keys combination ALT + underlined button name character and then press or not Enter key (depends on the cases). For instance, to activate the command Disable press ALT+B and then press Enter.

In this chapter, we always suppose the use of the mouse when describing activation procedures of **MapsConf32** commands. Anyway, the possibility of using the keyboard remains understood.

3.3 Setting-up operations

3.3.1 Setting-up communication channels (serial version only)

In the **MAPSKIT32** serial version, the panels communicate to the PC station by means of one or more communication channels. The serial ports of the PC station constitute this communication channels.

The maximum number of panels you can connect on each serial channel depends on the type of the panels themselves.

*Communication
Channels
Setup*

The **MapsConf32S** Communication Channels Setup form allows to set up each communication channel and to verify its working. To display such form (figure 3.4), click the corresponding toolbar's button.

Figura 3.4 – MapsConf32S: Communication Channels Setup *form*

Remind this: if you want to modify the parameters of a communication channel, first of all you have to disable it from communicate, then you have to enable it again after modifying the parameters.

To enable a communication channel, work as follows:

1. by clicking it in the Serial port box, select the port (COM1, COM2, etc.) you want the channel uses;

2. set up the wished values in the boxes Parity, Stop Bit and Data Bit;

3. by clicking it in the Channels box, select the channel to enable. A lightning-shaped icon marks an enabled channel and a cross-shaped icon marks a disabled channel, instead. You can choose as desired the channel - serial port coupling;

4. insert the wished values (or let unchanged the default values) for the communication parameters in the edit boxes placed into the upper left pane of the Communication Channels Setup form. To modify the value of a communication parameter, click the corresponding edit box and type in the new value. The boxes into the Diagnostic pane display suitable output values, useful for diagnostic purposes;

5. click the Enable button; in the Channels box, the enabled channel now should be marked by the lightning-shaped icon.

To disable an enabled channel of communication, work as follows:

1. by clicking it in the Channels box, select the channel to disable;

2. click Disable button: the disabled channel now should be marked by the cross-shaped icon.

3.3.2 Setting-up communication channels (network version only)

In the network connection case, the communication among PC stations and panels is assured, by means of ProController devices, by enabling the LAN channel. Each PC station and each panel can communicate using a single net port among the ones provided by the LAN channel. The communication is therefore possible only among PC stations and panels using the same net port. In other words: the LAN channel provides ten net port (A to L), but only one of such ports can be used (by a PC station or a panel) to communicate. As a typical case, if you want that all the PC stations are able to communicate with all the panels, you have to choose the same net port for all the PC stations and all the panels (or better, the corresponding ProControllers). If instead you want to have some panels to be able to communicate only with a few PC stations and vice-versa, you have to choose a different net port for each panels/PCs group.

You have to set up the net port used by each PC station, by using the **MapsConf32N** module installed on the station itself . You have to set up the net port used by each panel by using the **Maps32CardProg** ProController configuration module. If you make not congruent configurations, there is a lack of communication between PC and panels. Consult chapter 5 in order to obtain more information about **Maps32CardProg** use.

**Communication
Channels
Setup**

MapsConf32N allows user to enable/disable/modify the LAN channel, selecting the suitable net port, by using the Communication Channels Setup form. To display such form (figure 3.5), click the corresponding toolbar's button.
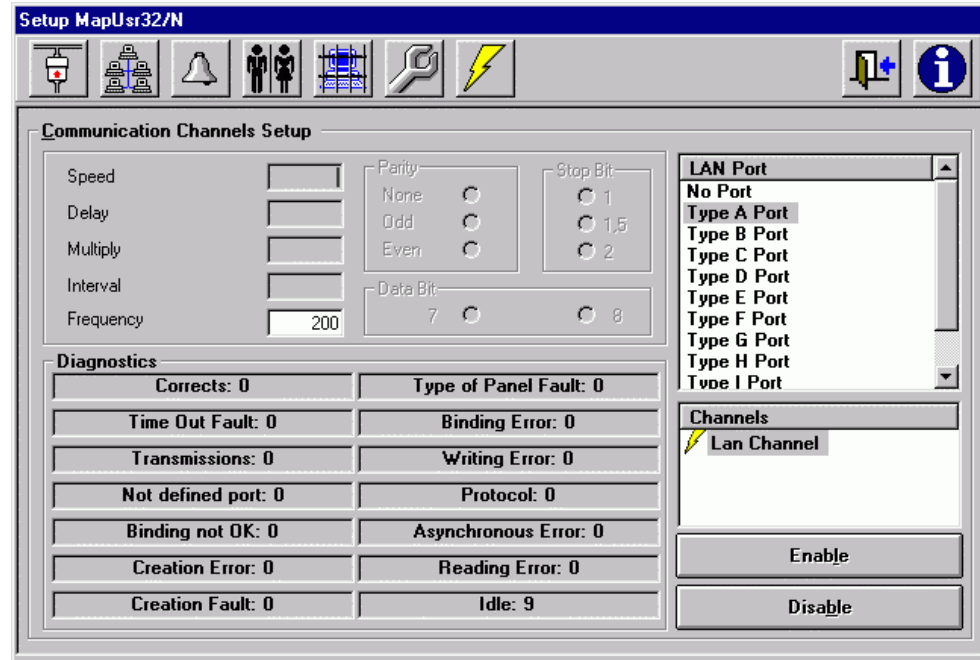
Figure 3.5 – MapsConf32N: Communication Channels Setup *form*

Remind this: if you want to modify the parameters (Frequency and/or LAN port) of the LAN channel, first of all you have to disable it from communicate, then you have to enable it again after modifying the parameters.

To enable the LAN channel, work as follows:

1. by clicking it in the LAN Port box, select the net port you want the channel uses;

2. insert the wished value in the Frequency box (or let unchanged the default value). This parameter affects the PC-panels' response times to the system events. Lower frequency values correspond to more intense activity of the net. In order to modify the value of this parameter, click its box and type in the new value;

3. by clicking it in the Channels box, select the LAN channel to enable, and then click the Enable button. The lightning-shaped icon now marks the enabled LAN channel. The cross-shaped icon instead marks the disabled LAN channel. The boxes into the Diagnostic pane display suitable output values, useful for diagnostic purposes.

To disable the enabled LAN channel work as follows:

1. by clicking it in the Channels box, select the LAN channel;

2. click Disable button: the disabled LAN channel now should be marked by the cross-shaped icon.

3.3.3 Setting-up panels (serial version only)
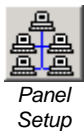
Panel Setup

After having set up and having enabled the serial channels, you have to set up the panels which, through such channels, communicates with the PC station. You may perform these settings by means of **MapsConf32S** Panel Setup form (figure 3.6). To display such form click the corresponding toolbar's button.

Figure 3.6 – MapsConf32S: Panel Setup *form*

To insert a new panel in the system, work as follows:

1. in the Channels box, select the communication channel you want the new panel uses. Remember that an enabled channel is marked by the lightning-shaped icon. Instead, a disabled channel is marked by the cross-shaped icon. It is obvious that the new panel must be connected to an enabled channel;

2. by clicking it in the Panel Type box, select the type of the panel you want to insert. The box lists all the panels models supported by **MAPSKIT32**;

3. insert the identification number assigned to the new panel, by clicking in the Id. Code edit box and by typing in the number. This value must coincide with the one assigned to the same panel by **MapsGen32** (section 4.4);

4. insert the panel's address in the Address edit box. This value must coincide with the one set up by means of the panel's hardware;

5. by clicking it in the Panels box, select the name which identifies the new panel;

6. if you want, assign a descriptive text to the new panel, by typing it in the Panel description box;

7. click the Enable button. In the Panels box, the new panel is marked by the lightning-shaped icon. If the panel is disabled, it's instead marked by the cross-shaped icon.. The state of the communication between panel and PC is shown in the message box placed above the Panels box.

To disable a panel work as follows:

1. by clicking it in the Panels box, select the panel to be disabled;

2. click Disable button. In the Panels box the panel now should be marked by the cross-shaped icon. The communication status box displays the message NOT ENABLED .

To remove a previously disabled panel, work as follows:

1. by clicking it in the Panels box, select the panel to remove;

2. by clicking it in the Panel Type box, select No Type;

3. click Enable button. The panel is immediately removed.

If you select a panel in the Panels box and if you then click the Details button, a detailed configuration window for the selected panel opens. The appearances of such a window are extremely different, according to the panel's type. As an example, the detailed configuration window for IC32Otvcc video matrix is displayed in figure 3.8. Describing the detailed configuration window for the various panels' types goes beyond the purposes of this handbook.

3.3.4 Setting-up panels (network version only)
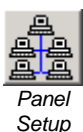
*Panel
Setup*

After having set up and having enabled the LAN channel, you have to set up the panels which, through the same net port, communicates with the considered PC station. You may perform these settings by means of **MapsConf32N** Panel Setup form (figure 3.7). To display such form click the corresponding toolbar's button.
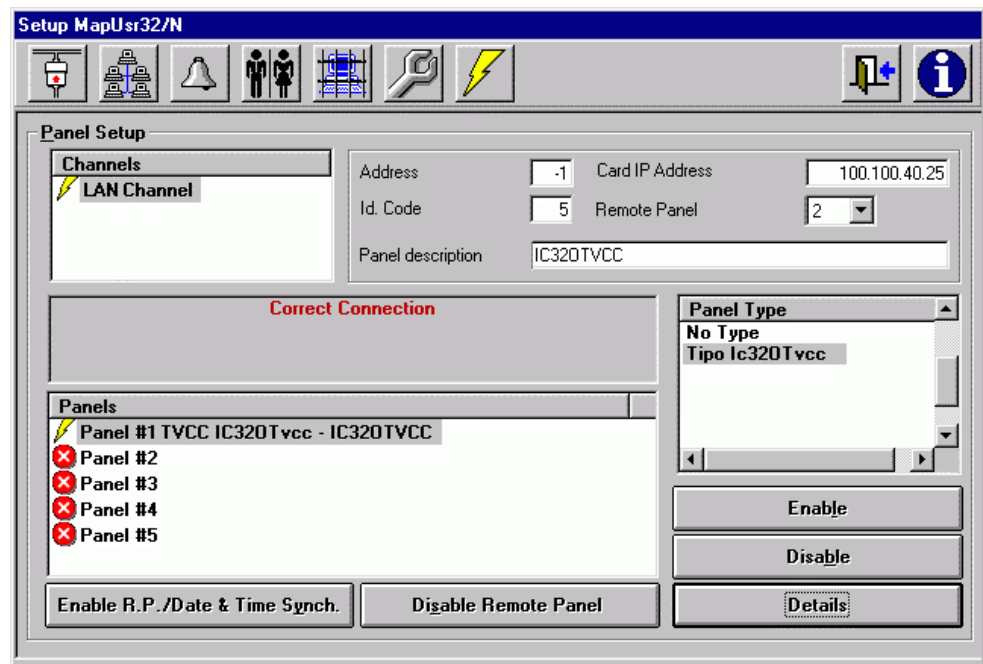
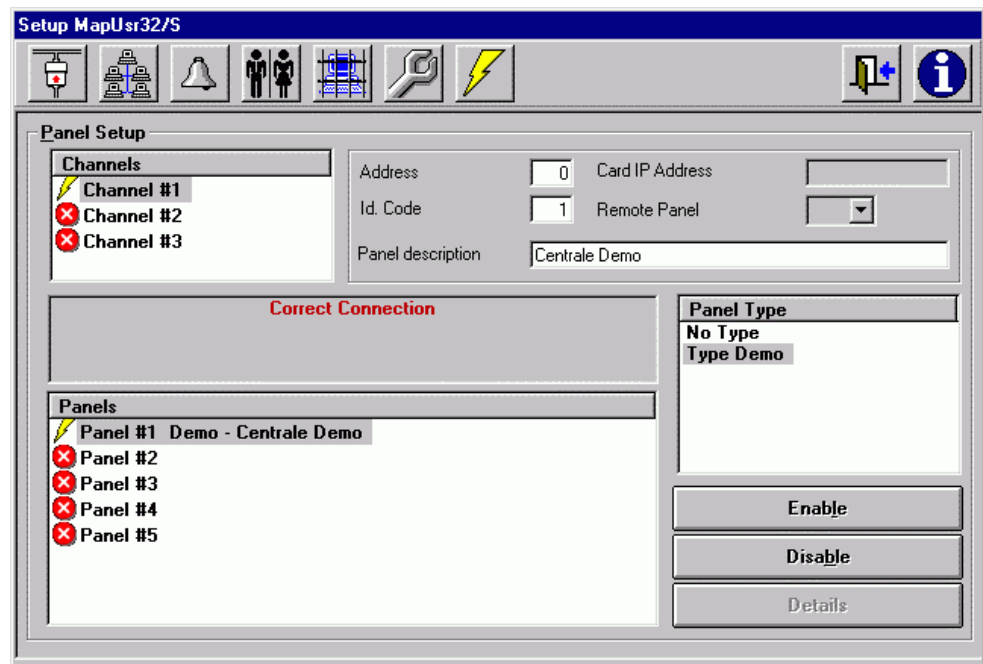*Figure 3.7 – MapsConf32N:* Panel Setup *form*

The panels enabled to communicate are the ones supervised by the **MapsUsr32N** module installed on the considered PC station.

To insert a new panel communicating with the considered PC station, work as follows:

1. assure yourself that the LAN channel is enabled. In the Channels box it must be marked by the lightning-shaped icon. If the LAN channel is disabled, it is marked by the cross-shaped icon. It is obvious that the new panel must be connected to an enabled channel;

2. in the Card IP Address edit box, type the IP address of the ProController which connects the new panel to the net. You have to insert this IP address in decimal format. It must be constituted by 4 groups of digits divided by 3 dots: each group of digits must constitute a whole number included between 0 and 255. This IP address must coincide with the one assigned to the ProController by means of **Maps32CardProg**; refer to the chapter 5 for more information;

3. by clicking it in the Panels box, select the name which identifies the new panel;

4. by clicking it in the Panel Type box, select the type of the panel you want to insert.

5. insert the identification number assigned to the new panel, by clicking in the Id. Code edit box and by typing in the number. This value must coincide with the one assigned to the same panel by **MapsGen32** (section 4.4);

6. insert the panel's address in the Address edit box. This value must coincide with the one set up by means of the panel's hardware;

7. in the Remote Panel combo box, select the new panel's identification number for ProController level;

8. if you want, assign a descriptive text to the new panel, by typing it in the Panel description box;

9. click the Enable button. In the Panels box, the new panel is now marked by the lightning-shaped icon. The state of the communication between panel and PC is shown in the message box placed above the Panels box. If you made mistakes setting up the ProController IP address or setting up the net port for the LAN channel, the communication between the PC station and the new panel is impossible. The message box can also display the information if the considered PC is the "Host" station or a "Guest" station for the ProController connected to the panel (paragraph 5.2.2).

To disable a panel connected via the LAN channel to the PC station considered, work as follows:

1. by clicking it in the Panels box, select the panel to be disabled;

2. click Disable button. In the Panels box the panel now should be marked by the cross-shaped icon. The communication status box displays the message NOT ENABLED .

To remove a previously disabled panel, work as follows:

1. by clicking it in the Panels box, select the panel to remove;

2. by clicking it in the Panel Type box, select No Type;

3. click Enable button. The panel is immediately removed.

The **MapsConf32N**'s Panel Setup form includes other three command buttons: Enable R.P. / Date & Time Synch., Disable Remote Panel and Details.

These commands provide the following functions:

•   by clicking Disable Remote Panel button you can disable the communication between the selected panel in the Panels box and the corresponding ProController. It is a useful function when you have to insert a new panel and the corresponding ProController is already connected to the net. Only one PC station can disable the remote communication: this one is the so-called "Host" station for the considered ProController. Refer to the chapter 5 to obtain more information;

- by clicking Enable R.P. / Date & Time Synch. button you can send to the ProController of the selected panel, two different commands. In the case of a previous remote communication disabling, by clicking the button from the "Host" PC station, you can restore the communication between the selected panel and the corresponding ProController. In the case of remote communication not disabled, by clicking the button from the "Host" PC station, you can synchronize ProController's date and time with those of the PC. This date & time synchronization function it's also possible from a "Guest" PC station for the ProController. Refer to the paragraph 5.2.2 to obtain more information about "Host" and "Guest" PC stations.

- by clicking the Details button you can access a detail configuration window for the selected panel in the Panels box. The appearance of this window varies considerably, according to the type of selected panel. The description of the detail configuration goes beyond the purposes of this handbook. As an example, the figure 3.8 displays a detail configuration window for a display matrix interface card IC32OTvcc.

Figure 3.8 – MapsConf32N: Command setting *window (*IC32OTvcc*)*

In the ProController pane of the detail configuration window, the buttons Download and Version allow to send other commands to the ProController of the selected panel:

- Download allows to bring up to date the ProController firmware (only from "Host" PC-station);

- Version allows (either from the "Host" PC station or a "Guest" PC station) to verify the version of the firmware installed on the ProController

3.3.5 Setting-up system's events warning levels

MapsUsr32 classifies as alarm events, storing them into the alarms log, all the system events which have a warning level grater than zero. The base events (= system events have a warning level equal to zero) are instead stored in the events log. **MapsConf32** allows to associate a warning level to every system event; each system event is therefore classified either as alarm event or as base event. For an alarm event it's possible to graduate the warning level and to decide if it activates or not the PC acoustic signallings. You may perform these settings by means of **MapsConf32** Alarm Setup form (figure 3.9). To display such form click the corresponding toolbar's button.
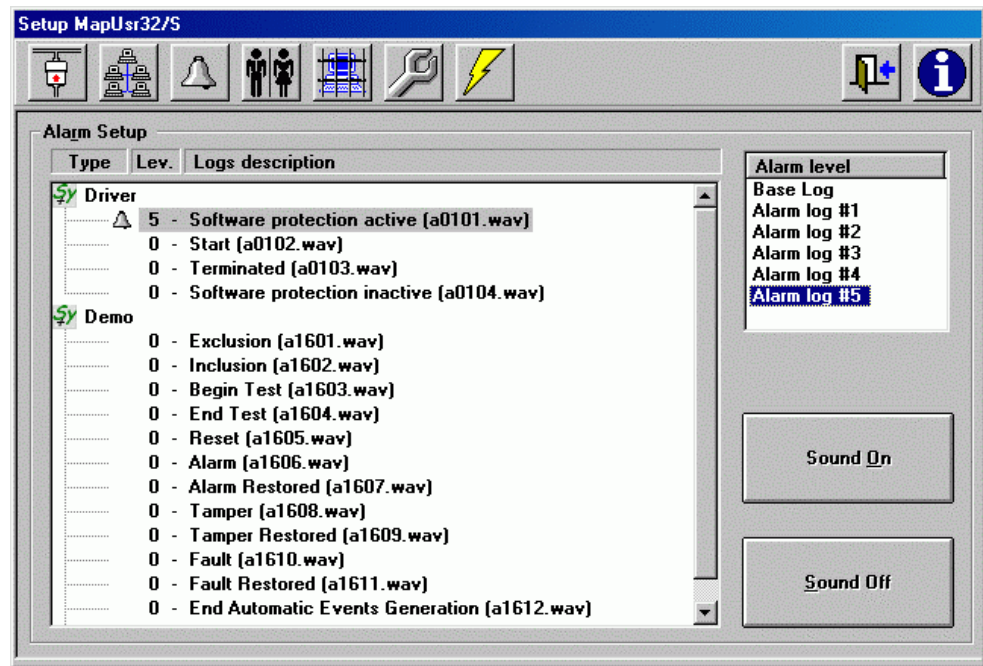
Alarm Setup

Figure 3.9 – MapsConf32: Alarm Setup *form*

Inside the Alarm Setup form, the Type / Lev. / Logs description box displays the list of system events (events concerning software and panels). The events list is assembled in a tree structure, whose branches you can freely open and explore. Every branch contains a type of system events. Figure 3.9 displays opened the branches corresponding to system event types called Driver and Demo. In order to open a type branch, click the type name: the list of related system events is shown on screen. To every system event is associated a warning level (Lev.) varying between 0 and 5. System events having warning level greater than zero can be marked by a bell-shaped icon. When such a system event occurs, it's activated the bell of the PC station or it's reproduced the audio file associated to the event (if it exists). The audio file (for instance a vocal message) associated to a system event must respect the three following conditions:

1. Its audio format must be .WAV (audio Windows);

2. Its name must mandatorily coincide with the one shownin the list. This name is shown, between square brackets, to the right of the event name (for instance: a0101.wav)

3. It must be stored in the working folder created during the **MAPSKIT32** installation (C:\MapDrv32Drv\Sound).

For the rest, it may be any .WAV audio file (for instance a vocal message recorded by microphone).

In order to modify the warning level of a certain system event, work as follows:

- by clicking it in the Type / Lev. / Logs description box, select the event to be modified;

- click the wished level in the Alarm level box. The new warning level is immediately activated and immediately shown in the Type / Lev. / Logs description box.

You can also associate (or not) the activation of PC acoustic signallings when a system event with warning level greater than zero occurs. To activate the acoustic signallings (alarm bell or corresponding audio file reproduction) when a system event occurs, work as follows:

- by clicking it in the Type / Lev. / Logs description box, select the event;

- click the Sound On button. This activation is immediate, and the event name is immediately marked by the bell-shaped icon.

To deactivate the acoustic signallings when a system event (having warning level greater than zero) occurs, work as above, but now click the Sound Off button. The deactivation is immediate and makes the bell-shaped icon disappear.

3.3.6 Setting-up programs' use restrictions. Managing users

MapsConf32 allows to store name and password of every user authorized to use **MapsUsr32** and **MapsConf32** itself. It also allows to customize the users' rights related to using the two programs. It's possible to select which **MapsUsr32** functions and which **MapsConf32** functions are accessible to each authorized user. This selection can be modified at any time.

You may perform these settings by means of **MapsConf32** Users management form (figure 3.10). To display such form click the corresponding toolbar's button.


Users Management
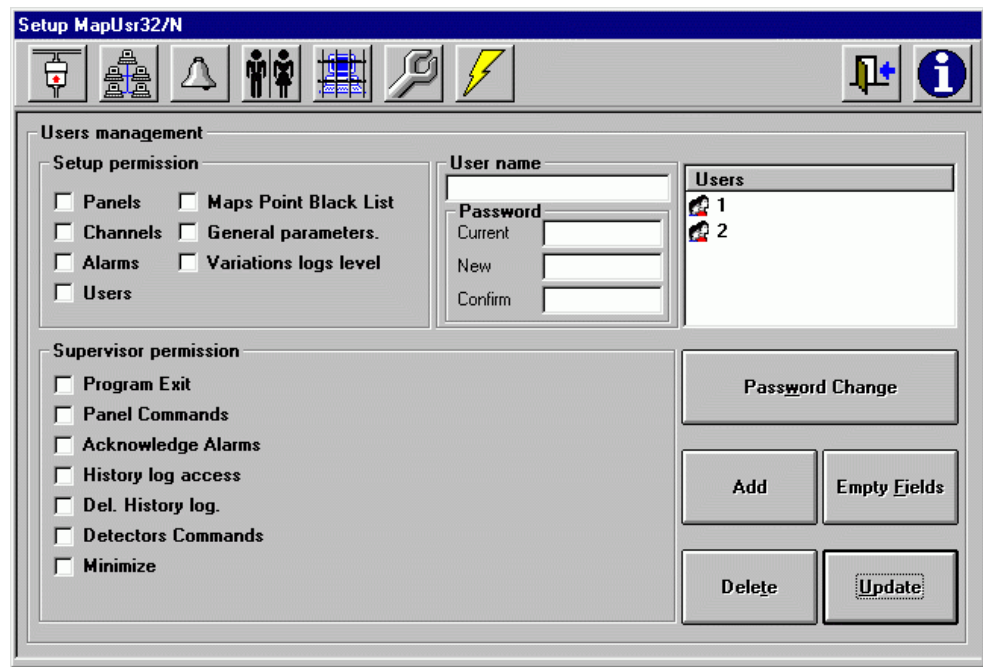
Figure 3.10 – MapsConf32: Users management *form*

Such form allows you to perform the following operations:

- storing name, password and programs' use permissions for a new user;

- modifying the user password;

- modifying the user programs' use permissions;

- removing an user.

To record data for a new user authorized to use **MapsUsr32** and **MapsConf32** work as follows:

1. select the wished options in the Setup permission pane of the Users management form. Each option corresponds to a **MapsConf32** form. If you want that the new operator have access to a **MapsConf32** form, click the corresponding check box, in order to insert a tick (✓). The new user has access to every **MapsConf32** form corresponding to each check box filled with tick; he/she has not access to the forms corresponding to empty check boxes. To remove the tick from a check box, simply click the check box;

2. work as above when clicking the check boxes in the Supervisor permission pane. In this pane, the check boxes correspond to functions provided by **MapsUsr32**. The new user will be able to use only the **MapsUsr32** functions corresponding to the check boxes filled with tick. The correspondence among check boxes and **MapsUsr32** functions is as follows:

- Program Exit → terminating **MapsUsr32**
- Panel Commands → sending commands to panels
- Acknowledge Alarms → storing pending alarms
- History log access → displaying, printing and exporting (not deleting), filtered data of the historical log.
- Del. History log → deleting suitably filtered data of the historical log
- Detectors Commands → sending operation commands to the points (displaying points with "hide object" flag activated, excluding and including points, etc.).
- Minimize → minimize **MapsUsr32** desktop window;

3. click the User name edit box, and type in the new user's name;

4. click the New edit box in the Password pane, and type in the new user's password;

5. click the Confirm edit box in the Password pane, and re-type in the new user's password;

6. click the Add button to activate the new user.

You may click the Empty Fields button to quickly delete all the data inserted in the following panes: Setup permission, Supervisor permission, User name and Password.

To modify the password of an user, work as follows:

1. by clicking it in the Users box, select the wished user;

2. click the Current edit box in the Password pane, and type in the user's current password;

3. click the New edit box in the Password pane, and type in the user's new password;

4. click the Confirm edit box in the Password pane, and re-type in the user's new password;

5. click the Password Change button to activate the user's new password.

To modify the programs' use permissions of an user, work as follows:

1. by clicking it in the Users box, select the wished user;

2. click the Current edit box in the Password pane, and type in the user's current password;

3. modify the ticks' presence inside the check boxes of the Setup permission and Supervisor permission panes;

4. click the Update button to activate the user's new programs' use permissions.

To remove an user, work as follows:

1. by clicking it in the Users box, select the user to remove;

2. click the Delete button. The user is not authorized to use **MapsUsr32** and **MapsConf32** any more.

3.3.7 Setting-up a points' black list

For a certain PC station, the black list is a database which includes all the points for which you don't want to manage the visualizations. **MapsConf32** allows to easily set up the black list for the PC station on which it's running. On this PC station, **MapsUsr32** will not show, on-screen, status variations originated from points belonging to the black list.

Maps Point Black List
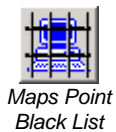
You may perform these settings by means of **MapsConf32** Maps Point Black List form (figure 3.11). To display such form click the corresponding toolbar's button.

Figure 3.11 – MapsConf32: Maps Point Black List *form*

In the upper side of the form, a large box displays all the records composing the black list, and the fields into which every record is divided: Panel ID, From group, To group, From Detector, To Detector. Every record defines a set of points whose visualizations are not managed. If the black list is empty, the supervision system manages the visualizations originated from all the points which it communicates with.

In the lower side of the form, the homonymous edit boxes (Panel ID, From group, To group, From Detector, To Detector) allow to add a new record to the black list or to modify the content of one or more fields of an existing record.

The buttons on the right side of the form, allow to execute 3 operations on the black list:

1. Adding a new record (Add)
2. Modifying the content of one or more fields of an existing record (Update)
3. Removing an existing record (Delete).

To add a new record to the black list work as follows:

1. click each edit box (Panel ID, From group, To group, From Detector, To Detector) and type in the value of the new record's corresponding field;

2. click the Add button. The black list visualization box is immediately brought up to date, showing the new record.

Modify the content of one or more fields of an existing record:

1. by clicking its panel's number in the black list visualization box (Panel ID field), select the record to be modified. The edit boxes now show the content of the fields of the selected record;

2. modify as wished the values of the fields, inserting new values in the edit boxes Panel ID, From group, To group, From Detector, To Detector;

3. click the Update button. The black list visualization box is immediately brought up to date, showing the new values of the record's fields.

Removing a record from the black list:

1. by clicking its panel's number in the black list visualization box (Panel ID field), select the record to be removed;

2. click the Delete button. The black list visualization box is immediately brought up to date: it doesn't show the removed record any more.

3.3.8 Setting-up MapsUsr32's software parameters

Software Parameters

MapsConf32 Software Parameters form allows you to set up a few working parameters concerning **MapsUsr32** use (figure 3.12). To display such form click the corresponding toolbar's button.

Figure 3.12 – MapsConf32: Software Parameters *form*

In order to printing real-time all the events registered by **MapsUsr32**, you can use a printer connected to the parallel port of the PC station. To take advantage of this possibility, you have to set up the parameters in the Print Manager pane of the **MapsConf32** Software Parameters form. Work as follows:

- to activate on-line printing, click the Printing on line enabled check box; the presence of the tick (✓) shows that on-line printing is enabled. A further click in this check box makes the tick disappear, and then disables on-line printing;

- **MapsConf32** identifies all the printers installed on the system. By clicking its name in the Available printers combo box, select the printer you want to use. The selected printer is displayed in the Selected printer box;

- insert the wished value (expressed in seconds) in the edit box Activation delay or let unchanged the default value. This parameter specifies the delay which on-line printing is activated with, in comparison with system starting. To modify this value click edit box Activation delay and type in the new value;

- to make the new settings active, click the Parameters update button;

- by clicking the Diagnostics update button, you can obtain a set of output values filling the Diagnostics pane's boxes. Examining these values may be useful to solve possible on-line printing troubles.

The Automatic history logs transfer pane allows to set up the way the backup of the **MapsUsr32** historical log is performed (paragraph 2.7.2). You can set up the maximum number of events the current historical log can store. When the events exceed this limit, the current historical log is automatically backed-up. You can consult or print this backup file by opening the **MapsUsr32** History logs window (figure 2.21).

In order to set up the **MapsUsr32** current historical log upper limit, work as follows:

1. in the History logs upper limit edit box, type the maximum number of events the current historical log can store. Insert a numerical value included between 5000 and 30000. If you insert the zero value, the backing-up is disabled;

2. to make the new settings active, click the Parameters update button.

The Time manager pane of the **MapsConf32** Software Parameters form allows you to perform the following settings:

- setting up the duration of some time intervals used by **MapsUsr32**
- setting up the way to silence the alarm bell on the PC station.

When signalling a pending alarm, the PC station's bell has an intermittent working, composed by an ON phase (= activated bell) and an OFF phase (= deactivated bell):

- the Alarm time ON box, of Time manager pane, displays the selected duration of the bell ON phase;

- the Alarm time OFF box, of Time manager pane, displays the selected duration of the bell OFF phase.

By clicking these edit boxes, you can set up the duration of the ON phase and the OFF phase; you can insert values included between 0 and 99 seconds.

The duration specified in the Inactivity Time edit box, sets up the **MapsUsr32** automatic logout function. In practice, **MapsUsr32** times every inactivity period of the PC station user. When an inactivity period coincides with the duration specified in the Inactivity Time edit box, **MapsUsr32** executes an automatic logout of the user. The user is forced to perform a new login in order to continue his/her surveillance turn (paragraph 2.1.2). The value contained in the Inactivity Time edit box must be included between 0 and 9999 second. Setting up the value zero disables the automatic logout.

In order to set up the Time manager pane, work as follows:

CIDES S.R.L. – MAPSKIT32

1. click the box concerning the time interval to be modified;

2. type in the new duration value (expressed in seconds);

3. click the Parameters update button to activate new settings.

The Implicit Silencing check box, allows you to select the way the user can silence the alarm bell on the PC station, in presence of pending alarms.

*   Implicit Silencing check box empty →   to silence the bell the user must acknowledge all the pending alarms (paragraph 2.6.2);

*   Implicit Silencing check box filled with a tick (✓) → to silence the bell the user can simply click the On-Line Log button on **MapsUsr32**'s desktop. For this purpose it's not necessary to acknowledge all the pending alarms. When this option is active, also the users not authorized to acknowledge the alarms can silence the bell.

To select the way of silencing bell, work as follows:

1. click Implicit Silencing check box to insert (if the box is empty) or remove the tick;

2. click the Parameters update button to activate this new setting.

The Setup backup pane of Software Parameters form allows you to save, on a text file, all the configurations made with **MapsConf32**. The text file is stored in the folder C:\Programmi\MapsUsr32 of the PC position. In order to perform this backup, work as follows:

1. click the Name edit box and type in the name of the text file;

2. click the Save button.

By clicking the Events alignment button you can prevent **MapsUsr32** from downloading already occurred events. It's a useful function when you have to add a new PC station to the supervision system. By this function, the new PC station avoids to manage all the events occurred before its inclusion in the supervision system.

3.3.9 Setting-up variations' priority levels

The ways, according to **MapsUsr32** supervision system shows the status variations of the maps' points, are established by two distinct settings:

1. the settings imposed in the **MapsConf32** Variations logs level form (figure 3.13). This paragraph describes these settings in detail;

2. the priority level associated to every point by means of **MapsGen32**: for a description of such a setting, consult the paragraph 4.5.1 and the figure 4.9.

*When setting up the priority levels of the points' status variations, you must remind this general rule: the general settings imposed by **MapsConf32** Variations logs level form are prevalent in comparison with the settings imposed on individual points by **MapsGen32** (paragraph 4.5.1-* Detector parameters *window). There is only the following exception to this general rule: if a point is set up with the zero value in the* Level *box of its* Detector parameters *window, no status variation of its (whatever priority level it has) can automatically switch the **MapsUsr32** map visualization.*

From these two distinct settings, it's possible to establish if the status variation (from a normal condition) of a certain point causes the following consequences:

•   **MapsUsr32** automatically displays the graphic map containing the point (automatic map visualization switching);

•   **MapsUsr32** emphasizes the point on the map, by blinking its icon (the icon colour corresponds to the new status of the point).

Variations Logs Level

MapsConf32 Variations logs level form allows you to set up the priority levels and the visualization modes corresponding to status variations of the points (figure 3.13). To display such form click the corresponding toolbar's button.
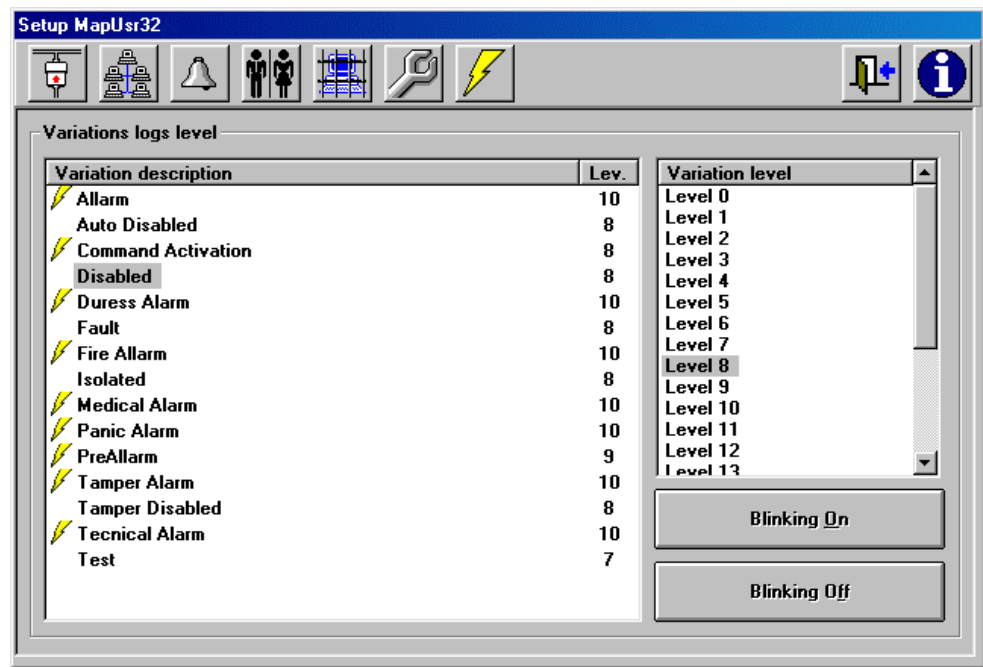
Figure 3.13 – MapsConf32: Variations logs level *form*

In order to modify the priority level of a status variation work as follows:

1. by clicking it in the Variation description / Lev. box, select the variation to modify;

2. by clicking its value (0 to 20) in the Variation level box, select the new priority level associated to the selected variation. The priority level update is immediate, and it's soon displayed in the Lev. column.

In the Variation description box, every status variation marked by the lightning-shaped icon, causes point's icon blinking. To activate (deactivate) the blinking function for a status variation work as follows:

1. by clicking it in the Variation description / Lev. box, select the variation to modify;

2. click the Blinking On button (Blinking Off). This update is immediately activated.

The settings made in Variations logs level form condition as follows the **MapsUsr32** maps visualization modes:

- The status variation of a point, associated at a priority level greater than zero, switches the **MapsUsr32** visualization on the map containing the point. This automatic switching doesn't take place if the point was assigned a level equal to zero (during maps configuration - paragraph 4.5.1).

- The status variation of a point, associated at a priority level equal to zero, keeps the **MapsUsr32** visualization on the current map.

- In presence of status variations of several points, the **MapsUsr32** visualization is switched on the map containing the point suffering the highest level variation. At a parity of maximum priority level for two or more variations, the **MapsUsr32** visualization is switched on the map containing the point suffering the most recent status variation.

- The icon of a point is displayed by **MapsUsr32** in a blinking way, if the point suffered a status variation associated to blinking.

Chapter

4

4 MAPSGEN32

4.1 Preliminary considerations

MapsGen32 is the program module to be used to arrange the graphic maps shown by **MapsUsr32.** The maps configuration consists of the following principal phases:

- Setting up the hierarchic order of the maps (tree structure)
- Specifying the panels connected to the controlled points
- Inserting points on maps
- Adding (possibly) background images to maps

*The **MapsGen32** use is granted, in complete form, only to **Service** level users. The **Manager** level users, and the **User** level users, are subject to use's restrictions.*

MapsGen32 comes realized in a single version, distributed with both the packages **MAPSKIT32S** (serial) and **MAPSKIT32N** (network).

The main functions provided by **MapsGen32** are the following:

- inserting new maps (automatically updating the tree hierarchic structure);
- deleting existing maps (automatically updating the tree hierarchic structure);
- renaming existing maps (automatically updating the tree hierarchic structure);
- moving existing maps by dragging and dropping them by the mouse (automatically updating the tree hierarchic structure);
- printing existing maps;
- modifying existing maps by specifying new panels;
- modifying existing maps by placing on them new points;
- modifying existing maps by removing one or more panels;
- modifying existing maps by removing one or more points;
- modifying existing maps by modifying the parameters of one or more panels;
- modifying existing maps by modifying the parameters of one or more points;
- modifying existing maps by inserting or removing background images;
- displaying, printing and exporting the list of objects (points) inserted on maps;
- managing logo images to be shown on **MapsUsr32** desktop;
- managing the users authorized to use **MapsGen32**. Assigning them hierarchic levels in order to activate suitable **MapsGen32** use's restrictions.

At program starting, a verification window requires the user to insert his/her name and his/her password. The user not authorized to use **MapsGen32** can close such window by pressing the keyboard ESC key; the program execution stops.

*All the **MapsGen32** functions are available only to users of the highest hierarchic level, called "Service". The users of the intermediate level ("Manager") cannot access the operations concerning the panels. The users of the lowest level ("Operator") can access only a **MapsGen32** vision mode. Refer to the section 4.6 to obtain more information.*

4.2 Graphic interface

At **MapsUsr32** starting, the whole screen of the PC monitor is engaged by the program working desktop. Looking into illustration of paragraph 6.2.2, shows that **MapsGen32** desktop can decompose into the following graphic elements:

- Title bar;

- Menu bar;

- Toolbar;

- "Maps tree" area (left side, upper part);

- "Panels" area (left side, lower part);

- "Maps" area (right side).

4.2.1 Title bar

The title bar displays the following information (from left to right):

- icon of window control menu
- **MapsGen32** explanatory indication
- **MapsGen32** version number
- name of the map displayed in the "maps" area (between square brackets)
- Microsoft Windows' buttons for window managing

4.2.2 Menu bar

It includes the **MapsGen32** menus: Maps e ? . You can use these menus in conformity with the Microsoft Windows standards.

You can access the menus in three different ways either by using the mouse or the keyboard:

1. by mouse: place the mouse cursor on the menu title and then click;

2. by keyboard: keep simultaneously pressed the ALT key and the letter key corresponding to the underlined character of the menu title; for instance, to open the Maps menu press ALT+M;

3. by keyboard: press the F10 function key; then use arrow keys → or ← to highlight the wished menu title and press the Enter key .

You can execute a command included in a menu in three different ways:

1. by mouse: click the command name;

2. by keyboard: use the arrow keys ← → ↑ ↓ to highlight the command name, then press the Enter key;

3. by keyboard: press (if the option is available) the key corresponding to the underlined character in the command name.

A command whose name is followed by dots ("…") asks you for a further data input.

You can close a menu in two different ways:

1. by mouse: click the menu title, or any point of the desktop outside the area engaged by the menu;

2. by keyboard: press the ESC key twice.

If the selected menu command opens a dialogue window, by closing the dialogue window you also close the main menu.

The **MapsGen32** menu ? has only one command:

> About…

Running About… command opens an information window about **MapsGen32**. To close this window, click any point of its frame.

The **MapsGen32** Maps menu gives you access to maps management commands. You can access all these commands, except Exit and Logo setting, also by the toolbar (shown in figures 4.1 and 4.3). Table 4.1 summarizes the Maps menu commands and the corresponding buttons on the toolbar (and corresponding buttons' tool-tip).

Maps Menu Command	Command Button *Tool-tip*	Function Executed
New…	*New Map*	Create a new graphic map, as a daughter of the selected one
Delete…	*Delete Map*	Delete the selected graphic map
Save…	*Save Map*	Save the selected graphic map
Print…	*Print Map*	Print the selected graphic map
Load Image…	*Load Map Background Image*	Load a background image for the selected graphic map
Users Messages…	*Modify Standard User Message*	Open the database of the messages related to the points' critical states
Logo setting	---	Select an image to be used as logo for **MapsUsr32**
Object list on map	*Object List On Map*	Display the list of all the objects (points) placed on maps
Exit	---	Stop **MapsGen32** running

Table 4.1 – MapsGen32: Maps *menu and corresponding toolbar's buttons*

The ways to select a graphic map are explained at paragraph 4.3.1. Daughter-map definition is explained at paragraph 2.3.1.

4.2.3 Toolbar

The toolbar is constituted by three groups of buttons which give direct access to the commands provided by **MapsGen32**. Click a button to run the corresponding command.

The first group of buttons (figure 4.1) provides tools concerning the selected graphic map. The ways to select a graphic map are explained at paragraph 4.3.1.

Figure 4.1 – MapsGen32: maps management tools' buttons

Functions commanded by these buttons are displayed in table 4.1.

A second group of buttons (figure 4.2) provides tools for inserting new points on the selected map. The ways to select a graphic map are explained at paragraph 4.3.1.

Figure 4.2 - MapsGen32: points insertion tools' buttons

Table 4.2 displays a short description about point insertion buttons.

Button	Tool-tip	Function executed
	Fire Detector	Insert a fire detector on the selected map
	Gas Detector	Insert a gas detector on the selected map
	Fire Button	Insert a fire button on the selected map
	Relay	Insert a relay on the selected map
	Transponder	Insert a transponder on the selected map
	Generic Detector	Insert a generic detector on the selected map
	Door Contact	Insert a door contact on the selected map
	Window Contact	Insert a window contact on the selected map
	Input	Insert an input on the selected map
	Horizontal Barrier	Insert a horizontal barrier (resizeable icon) on the selected map
	Vertical Barrier	Insert a vertical barrier (resizeable icon) on the selected map
	Movement Detector	Insert a movement detector on the selected map
	CCTV Command	Insert a CCTV activation command on the selected map

Table 4.2 – MapsGen32: point insertion commands

The third group of buttons gives access to different functions and is shown in figure 4.3:

Figure 4.3 - MapsGen32: other tools' buttons

The Modify Standard User Message and Object List On Map buttons were already briefly described in the table 4.1.

The button Modify Standard User Message allows the user to access the database containing the messages related to points' critical states (alarm, pre-alarm and fault). The user can modify, in the wished way, one or more records of this database. When inserting a point on a map (paragraph 4.5.1) the user can choose from the database which message to associate to each critical status. When the point is in a critical status,

MapsUsr32 displays the related message in the Message-To-Operator (figure 2.10). To obtain more information about updating the messages database refer to paragraph 4.5.7.

The Object List On Map button opens a window which displays the list of all the points placed on the maps. You can visualize the list either ordered for panels or ordered for map. The points list can be printed or exported on file or sent via e-mail. To obtain more information about these functions, consult the section 4.8.

The button Users Management (figures 4.3 and 4.4) allows the user to access the management functions for the staff authorized to use **MapsGen32**.

Figure 4.4 – MapsGen32: Users Management *button*

You can register new users, remove or modify the properties of users already registered. The configurable properties of a registered user are name, password and hierarchic level. To obtain more information consult the section 4.6.

4.2.4 "Maps tree" area

It engages the upper left part of **MapsGen32** desktop. It shows the tree-shaped hierarchic structure according to which the graphic maps are arranged. A tree structure example is shown in figure 4.5.
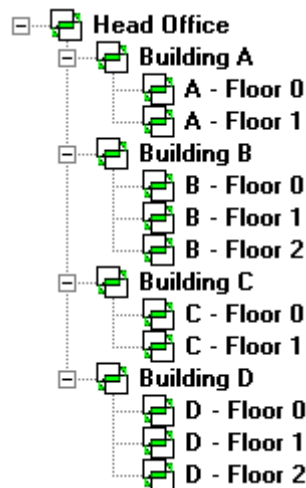

Figure 4.5 – MapsGen32: Tree-shaped maps structure

The graphic conventions adopted to represent the maps tree are like the ones Microsoft Windows uses to display the file and folders structure of a disc units.

The graphic maps which are mothers of other maps, are marked by the presence of a square-shaped knot box ( ). Such a box can contain a sign "+" or a sign "-". The meaning of these graphic symbols is the following:

- Map provided with knot box filled with sign "+": the current visualization of the tree does not show the daughter-maps of the considered map. The knot concerning the considered map is closed

- Map provided with knot square with sign "-": the current visualization of the tree shows the daughter-maps of the considered map. The knot concerning the considered map is open

To open or close a knot of the tree, click its knot box. Click the box of a closed knot in order to open it and to show the names of corresponding daughter-maps. Vice-versa click the box of an open knot in order to close it and to hide the names of corresponding daughter-maps.

The leaf-maps of the tree, having no daughter-maps, are not equipped with knot box. [Mother-map daughter-map and leaf-map definitions are explained at paragraph 2.3.1].

4.2.5 "Panels" area

It engages the left lower part of the **MapsGen32** desktop. This area displays the list of panels supervised by **MapsUsr32**. Figure 4.6 shows a "panels" area example.

Figure 4.6 – MapsGen32: "Panels"area"

Different panel types are marked by a different icon types.

In the "panels" area, a *Service* level user can perform the installation and panel level operations (section 4.4).

4.2.6 "Maps" area

It engages the largest right-side largest part of **MapsGen32** desktop. The " maps "area displays the graphic map currently selected on the maps tree. On the (possible) background image, the " maps "area shows all the points placed on the map and possible daughter-map sensors (corresponding to daughter-maps). As it happens on **MapsUsr32** desktop (section 2.4), the mouse cursor assumes particular shapes when it's placed upon a fire detector icon or a gas detector icon.; anyway, for every point the descriptive caption is displayed. This description is associated to the point in configuration phase; in

absence of different configuration, the shown description is No description. In the case of a daughter-map sensor, the description is constituted by the name of corresponding daughter-map. At the first **MapsGen32** starting, the root-map of the tree is selected and displayed on screen.

4.3 Map level operations

The *map level operations* allow to modify the hierarchic structure of the graphic maps tree.

The operations which allow to modify the maps' content (panels, points' number and location, etc.), are classified as *installation and panel level operations* and *point level operations* (sections 4.4 and 4.5).

4.3.1 Browsing the maps tree. Selecting a map

To browse the tree structure and to select a particular map (shown in the "maps" area of **MapsGen32**), you can use either the mouse or the keyboard.

By mouse:

- to expand the maps list, click the signs "+" in the knot boxes which identify closed knots;

- to compress the maps list, click the signs "-" in the knot boxes which identify open knots;

- to select a map click its name; the selected map is shown in the "maps" area.

By keyboard:

- to expand the maps list, highlight the knot to be opened (= mother-map name) by using arrow keys ↑ and ↓, and then press the arrow key → ;

- to compress the maps list, highlight the knot to be closed (= mother-map name) by using arrow keys ↑ and ↓, and then press the arrow key ← ;

- to select a map, highlight its name by using arrow keys ↑ and ↓, and then press the Enter key; the selected map is shown in the "maps" area.

4.3.2 Renaming a map

To rename a map, work as follows:

- select the map, by working as explained at paragraph 4.3.1;

- click (slowly) twice the name of the selected map. Type in the new name and press Enter key. **MapsGen32** asks to confirm to be the data inserted;

Save Map

- save the map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.3.3 Removing a map

To remove a graphic map from the tree, work as follows:

- select the map, by working as explained at paragraph 4.3.1;

Delete Map

- click the toolbar Delete Map button or select menu command Maps → Delete…, or press the Canc key. **MapsGen32** asks to confirm map removing. When you delete a daughter-map the corresponding daughter-map sensor is removed from the mother-map.

4.3.4 Creating a new map

To create a new graphic map in the tree structure, work as follows:

- by working as explained at paragraph 4.3.1, select the map you want to be the mother-map of the new one;

New Map

- click the toolbar New Map button or select menu command Maps → New…, or press the Ins key. The new map is added to the tree, and you can assign it the wished name. Inside its mother-map is automatically created the daughter-map sensor corresponding to the new map;

- save the new map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.3.5 Adding and removing a background image to a map

To add a background image to a graphic map, work as follows:

- select the map, by working as explained at paragraph 4.3.1;

Load Map Background Image

- click the toolbar Load Map Background Image button or select menu command Maps → Load Image…,

- select the graphic file containing the wished image; in order to find the file you may browse the discs content. Selecting the OK button activates soon the chosen image as background of the selected map. The graphic file of the background image is copied into the **MAPSKIT32** working folder;

- save the map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

As a background image you can use graphic files in the following formats:

- .BMP = Windows Bitmap
- .WMF = Windows MetaFile
- .JPG = Joint Photographic Experts Group
- .GIF = Graphics Interchange Format

To remove the background image from a graphic map, work as follows:

- select the map, by working as explained at paragraph 4.3.1;

- right click any point of the "maps" area on the **MapsGen32** desktop;

- select command Remove Map Background Image from popup menu. The background image is soon removed;

- save the map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.3.6 Printing a map

To print a graphic map work as follows:

Print Map

- select the map, by working as explained at paragraph 4.3.1;

- click the toolbar Print Map button or select menu command Maps → Print….

4.3.7 Drag & drop on the maps tree

By a drag & drop operation, you can drag a graphic map to a new position on the hierarchic tree. So, it's possible to quickly modify the hierarchic order of the maps. Work as follows:

- select the map, by working as explained at paragraph 4.3.1;

- make sure that selected map is displayed in the "maps" area;

Mouse cursor shape during map dragging

- keep pressed the mouse left key while the mouse cursor is placed upon the map name: verify that the mouse cursor changes its shape and looks like the image alongside;

- drag the selected map (always keeping pressed the mouse left key) to the wished position on the tree.

- release the left key of the mouse when its cursor is placed upon the name of the map which must be the new mother-map of the dragged one;

- **MapsGen32** asks to confirm the map shifting, and re-arrange the maps tree.

You cannot move a map from a lower hierarchic level to a higher one.

4.4 Installation and panel level operations

The installation and panel level operations allow you to arrange the control system's structure within which you can insert controlled points. By such operations you can define the security installation's panels. When building the graphic maps tree, you have to specify panels *before* to be able to insert the points connected to them. The point insertion command buttons (figure 4.2) are deactivated until you specify a panel.

Also after having inserted points, you can use the installation and panel level operations in order to modify the number and/or the type of the panels.

The "panels" area, of **MapsGen32** desktop, displays the effects of performing installation and panel level operations (figure 4.6). This area shows number and type of each inserted panel; these parameters must coincide with the ones set up into **MapsConf32** Panel Setup form (paragraph 3.3.3 and 3.3.4). A panel must have the same identification number both in **MapsGen32** and in **MapsConf32**.

You can check all the panels inserted in the security installation when you insert a new point: the panel selection list box displays only the panels already inserted (paragraph 4.5.1).

Only the *Service* hierarchic level users are authorized to perform installation and panel level operations. These operations are explained in next paragraphs.

4.4.1 Inserting a new panel

When building the graphic maps tree, you have, first of all, to specify the panels of the security installation. The specified panels are connected in cascade starting from the initial knot of the installation ("Demo Installation" – figure 4.6), and are shown in the "panels" area of **MapsGen32** desktop (figure 4.6).

To insert a new panel in cascade to the initial knot ("Demo Installation") work as follows:

1. click the initial knot ("Demo Installation") in the "panels" area of **MapsGen32** desktop. The Installation Popup Menu opens, providing three different commands: Add Panel, Description Modify and Exit;

2. click Add Panel: a new panel is immediately queued to the initial knot. To modify panel's parameters, consult paragraph 4.4.3.

4.4.2 Renaming the security installation

To modify the name of the security installation (for instance "Demo Installation"), work as follows:

1. in the "panels" area of **MapsGen32** desktop, click the installation's initial knot ("Demo Installation" in figure 4.6);

2. in the Installation Popup Menu, click Description Modify command: the window Installation Description Modify opens (figure 4.7);

3. click the Description edit box and type in the new name to be assigned to the security installation;

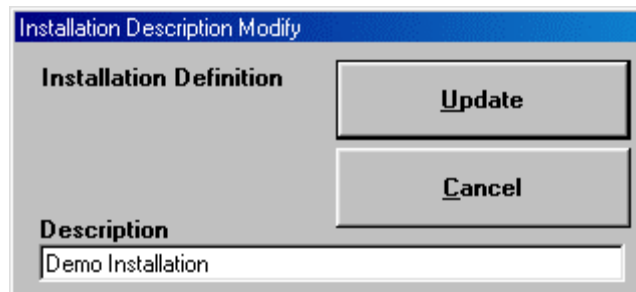4. to activate updating, click Update button.

Figure 4.7 – MapsGen32: Installation Description Modify *window*

4.4.3 Modifying panel parameters

To modify parameters of a panel already specified, work as follows:

1. by clicking it in the **MapsGen32** "panels" area, select the panel to be modified. The Panel Popup Menu opens, providing four different commands: Delete Panel, Modify Panel, Predefined Panel and Exit;

2. click Modify Panel: the window Panel Parameters Setup #X opens, where X is the selected panel's identification number (figure 4.8);

3. to modify the panel's type, select it from the Panel type list box. To modify the panel's identification number, type it in the Id. Code edit box. These settings must coincide with the ones set up into **MapsConf32** Panel Setup form;

4. to modify the descriptive name of the panel (the panel's default description is "Panel no. Y", where Y is the lowest not used number), click the Description edit box and type in the new name;

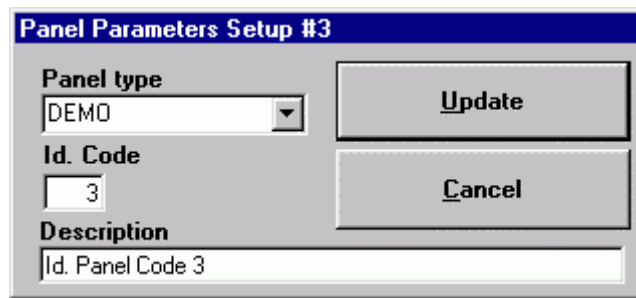5. to activate updating, click Update button.

Figure 4.8 – MapsGen32: Panel Parameters Setup # X *window*

4.4.4 Removing a panel

To remove a previously inserted panel (in accordance with the settings imposed in the **MapsConf32** Panel Setup form - paragraph 3.3.3 or 3.3.4), work as follows:

1. by clicking it in the **MapsGen32** "panels" area, select the panel to be deleted;

2. in the Panel Popup Menu, click Delete Panel. If there are some points still connected to the selected panel, **MapsGen32** informs that you can't delete the panel. You have to remove all these points (paragraph 4.5.4) before repeating the selected panel's deleting procedure. If there is no point connected to the selected panel, **MapsGen32** asks you to confirm deleting procedure.

4.4.5 Setting up the predefined panel

MapsGen32 allows to specify the installation's predefined panel. New points inserted on a graphic map (paragraph 4.5.1) are connected by default to the predefined panel. In the Detector parameters window (figure 4.9), the predefined panel is the first one in the Panel selection list box. To specify the predefined panel, work as follows:

1. by clicking it in the **MapsGen32** "panels" area, select the panel to be marked as predefined;

2. in the Panel Popup Menu, click Predefined Panel: the selected panel is immediately activated as predefined.

4.5 Point level operations

The point level operations allow to insert new points on the maps, to modify the parameters of points already inserted, to remove inserted points. A point represents, graphically, a sensitive element of the security installation. The information coming from a point can produce signalling from corresponding panel's or activating CCTV shooting. The point's features depend on its type (fire detector, gas detector, etc.) and on the type of panel it's connected to.

4.5.1 Inserting a new point on a map

To insert a new point on a map, work as follows:

- select the map on which you want insert the point, by working as explained at paragraph 4.3.1;

- specify the type of point to be inserted, by clicking the corresponding button in the points' insertion toolbar (table 4.2). The cursor mouse becomes cross-shaped;

- move on the map the cross-shaped mouse cursor until it reaches the new point's insertion position;

- click: Detector parameters window opens (figure 4.9). If the new point is a object type "CCTV command" (the connected panel is a video matrix) the Detector parameters window is simpler than the one in figure 4.9. The Detector parameters window allows to set up all the parameters of the new point;
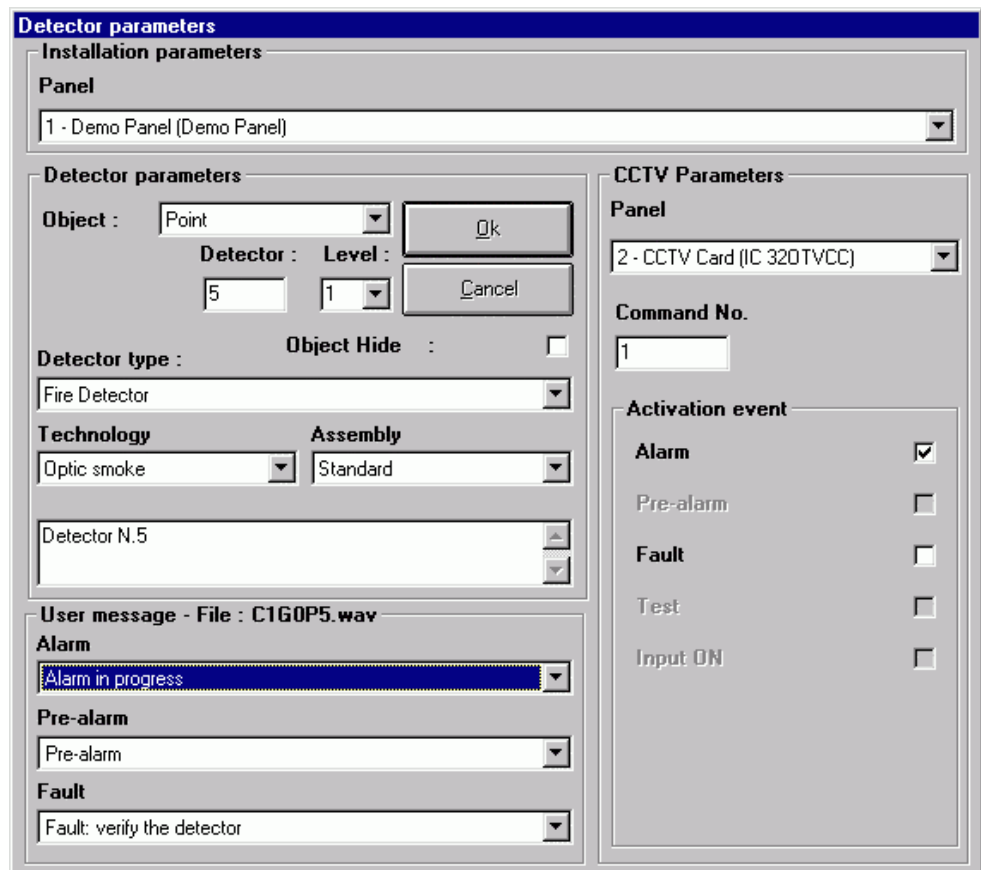
Figure 4.9 – MapsGen32: Detector parameters *window*

- set up the parameters of the new point, by filling all the boxes in the Detector parameters window (notice that the Detector type box is deactivated):

  1. Panel list box - select from the list the panel to which connect the new point. The list includes only the panels inserted (paragraph 4.4.1); the first listed panel is the predefined one (paragraph 4.4.5);

  2. Object list box - select the object type for the new point: i.e. "true" point or CCTV command. The object type varies by varying the panel selected in the Panel list box;

  3. Zone (Parameter 1) and/or Detector (Parameter 2) boxes: the appearance of these boxes depends on the panel's type selected in the Panel list box. Fill in with one or two values which identify the point;

  4. Command no. edit box – this box appears only if the new point is a CCTV command Object. Specify the CCTV activation command number (concerning the video matrix connected to the point);

  5. Level list box - specify the priority level associated to the status variations of the new point. The general settings, imposed by **MapsConf32** Variations logs level form (paragraph 3.3.9), are prevalent in comparison with these point's

settings. There is only one exception to this rule: if the new point is set up with the zero value in the Level list box, no status variation of its (whatever priority level it has) can automatically switch the **MapsUsr32** map visualization.

6. Object Hide check box - the presence of a tick in this box ensures that the new point's icon is not displayed on the **MapsUsr32** desktop. The visualization is possible only by clicking the Show hidden detectors button (figure 2.6);

7. Description edit box – By default, **MapsGen32** assigns the new point the "No description" descriptive text. The description appears, on **MapsUsr32** and **MapsGen32** desktops, when the mouse cursor is placed upon the icon of the point. To change descriptive text, type it in the Description edit box;

8. User Message list boxes – select, from these three list boxes, the message you want to associate, respectively, to the new point's alarm status, pre-alarm status and fault status. The list boxes allow browsing the database of the messages associated to points' critical states. You can modify the content of this database as explained at paragraph 4.5.7. When the point is in alarm, pre-alarm or fault status, the corresponding message appears in the Message-To-User box of **MapsUsr32** desktop (figure 2.10). The User Message pane also shows the mandatory name of the audio file associated to the alarm status of the point. The audio file (for instance a vocal message) is reproduced by the PC station, when the point is in alarm status (paragraph 4.5.8);

9. Technology list box – this box is present only if the point is a fire detector. Select the point's technology: Optic smoke, Thermal, Flame and H_2O;

10. Assembly list box – this box is present only if the point is a fire detector. Select the point's assembly type: Standard, Counter-ceiling, Floor and Air pipe;

11. Gas type list box – this box is present only if the point is a gas detector. Select the gas type detected by the point: Carbon Monoxide, Methane, Liquefied Petroleum Gas, Hydrogen, Monatomic Oxygen, Ammonia, Petrol Fumes and Special Gases;

12. CCTV Parameters pane's boxes – these boxes allow to set up a CCTV activation crossed-command, piloted by particular states of the point. In the Panel list box, select the video matrix the CCTV activation command refers to. In the Command no. edit box, insert the identification number of the command. To have an idea about the meaning of these operations, consult the figure 3.8. In the Activation event pane, select the states of the point (check boxes filled with a tick) which activate the crossed-command;

• to save the parameters configuration for the new point, click the OK button (or press the Enter key, or the keys combination ALT+O). The icon of the new point appears, in the wished position, on the selected map;

• if the point is an optical horizontal or vertical barrier, it's possible to modify the icon's size. To such a purpose, place the mouse cursor upon the barrier's icon;

when the cursor looks like a double arrow, drag the mouse through horizontal or vertical sense to resize the barrier's icon;

- save the selected map including the new point, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.5.2 Moving a point

To move a point on a map, work as follows:

1. select the map including the point to be moved (paragraph 4.3.1);

2. place the mouse cursor upon the point's icon, and wait for the point's description appearing;

3. drag the icon's point to the wished position. To perform dragging move the mouse keeping its left key pressed;

4. release the mouse left key when reaching the wished position;

5. save the updated selected map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.5.3 Modifying point parameters

To modify the parameters of a point, work as follows:

1. select the map including the point to be modified (paragraph 4.3.1);

2. right click the icon of the point to be modified. The Point Popup Menu opens, providing five different commands: Update, Delete, Copy, Cut, Cancel;

3. select the Update command: Detector parameters window opens again (figure 4.9). In this window, the Detector type box is now activated. The other boxes contain the point's current settings;

4. modify the point's parameters acting on the boxes of the Detector parameters window (refer to the paragraph 4.5.1). If necessary, change the point's type by clicking it on the Detector type box;

5. to save the point's new parameters configuration, click the OK button (or press the Enter key, or the keys combination ALT+O). To discard all the changes done, click the Cancel button (or press the keys combination ALT+C)

6. save the updated selected map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.5.4 Removing a point from a map

To remove a point from a map, work as follows:

1. select the map including the point to be removed (paragraph 4.3.1);

2. right click the icon of the point to be removed;

3. in the Point Popup Menu, click Delete command; the point is removed immediately, without request for confirming the operation;

4. save the updated selected map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.5.5 Duplicating a point on a map

In order to insert a new point into a map, it's also possible to duplicate a point of the same map. It's a useful function when it is necessary to insert, on the same map, quite a lot of points of the same type. To duplicate a point of a map, work as follows:

1. select the map including the point to be duplicated (paragraph 4.3.1);

2. place the mouse cursor upon the icon of the point to be duplicated;

3. to duplicate the point, drag the mouse cursor to the wished position, keeping simultaneously pressed the mouse left key and the keyboard Shift key;

4. if needed, modify the settings of the duplicate point by right clicking its icon and by selecting the Update command from the Point Popup Menu. To perform point's modifications, refer to paragraph 4.5.3;

5. if needed, move the duplicated point to the wished position, by working as explained at paragraph 4.5.2;

6. save the updated selected map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.5.6 Copying, cutting and pasting a point

By using the Point Popup Menu commands, it's possible to copy (or to cut) a point from a map and paste it on another map. Work as follows:

1. select the map including the point to be copied or cut (paragraph 4.3.1);

2. right click the icon of the point to be copied (cut);

3. in the Point Popup Menu, click Copy (Cut) command;

4. select the map on which to paste the copied (cut) point. **MapsGen32** asks to confirm the copying (cutting) operation;

5. on the destination map, click the position where pasting the copied (cut) point;

6. Detector parameters window opens again (figure 4.9).

7. modify as wished the copied (cut) point's parameters (paragraph 4.5.3);

8. save the destination map, either by clicking toolbar button Save Map or by selecting menu command Maps → Save… or by selecting another map.

4.5.7 Messages associated to the critical states of the points

MapsGen32 allows to manage a database of messages which can be associated to the critical states (alarm, pre-alarm, fault) of the points. The way to associate a message to a point critical status is explained at paragraph 4.5.1.

When a point is in a critical status, the associated message is displayed in the **MapsUsr32** Messages-To-User box (figure 2.10).

MapsGen32 provides a standard version for the messages database (figure 4.10). This standard version is constituted by 30 messages. The first three standard messages are: "Alarm in progress", "Pre-alarm" and "Fault: verify the detector"; the other ones simply go from "Message no. 4" to "Message no. 30".

MapsGen32 allows you to modify, at any time, the associated messages database. You can:

• add the database a new, customized, message;

• remove from the database, a standard message or a customized message;

• replace a standard message or a customized message.

To access the messages database you can use the following procedures:

*Modify Standard
User Message*

1. click the toolbar Modify Standard User Message button (table 4.1 and figure 4.3);

2. select menu command Maps → Users Messages….

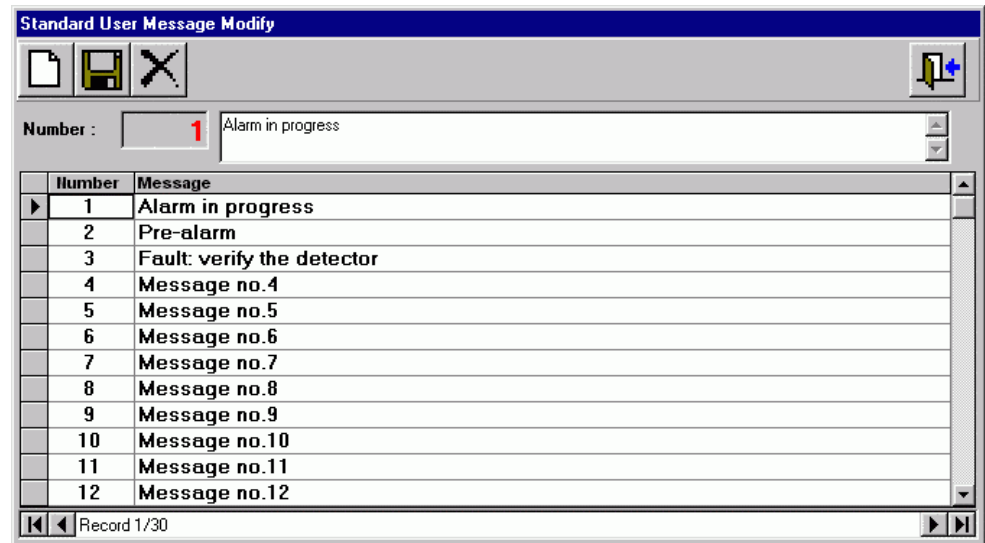In both cases the window Standard User Message Modify opens (figure 4.10).

Figure 4.10 – MapsGen32: Standard User Message Modify *window*

The figure 4.10 shows that every record of the messages database is composed by two fields: message number and message text.

The main graphic elements in the Standard User Message Modify window are the following:

- Command buttons: their functions are described in table 4.3:

Button	Tool-tip – Button's function
	New – Add a new message to the database
	Modify – Save the updated version of the selected message
	Delete – Remove the selected message
	Exit – Close Standard User Message Modify window

Table 4.3 – MapsGen32: message modifying tools' buttons

- Number box: it shows the selected record's number.

- Text insertion area: it allows to show and to modify the text of the message contained in the selected record.

- Messages list: the selected record is marked by ▶ symbol.

- Records browsing buttons. They allow to browse the records list one record at a time (in ascending or descending direction) and to select directly the first or the last

record. The box included between the browsing buttons shows the number of the record currently selected.

The available procedures to bring the messages database up to date, are the following.

- To add a new message to the database:

    1. click the New command button (table 4.3);
    2. confirm to really want to insert a new message;
    3. the Number box is brought to the new value up to date;
    4. type in the new message in the text insertion area;
    5. click the Modify command button (tabella 4.3);
    6. confirm to really want to modify the message.

- To remove a message from the database:

    1. by clicking records browsing buttons, select the record containing the message to be removed;
    2. click the Delete command button (table 4.3);
    3. confirm to really want to delete the message.

- To modify a message of the database:

    1. by clicking records browsing buttons, select the record containing the message to be modified;
    2. type in the new message in the text insertion area;
    3. click the Modify command button (tabella 4.3);
    4. confirm to really want to modify the message.

To close the Standard User Message Modify window, click the Exit command button (table 4.3).

4.5.8 Audio file associated to the point's alarm status

As mentioned in the paragraph 4.5.1, each point can be univocally associated to its own audio file (in .WAV format). For a considered point, the name of the audio file must mandatorily coincide with the one displayed in the User Message pane of the Detector parameters window (figure 4.9) of the point. It is also necessary, for the audio file, to be stored in the folder C:\MapDrv32Drv\Sound.

When the point goes in alarm status, the supervision PC station not only rings the alarm bell, but also plays the audio file associated to the point.

As an audio file any .WAV file can be used.

As a typical solution, you can use a vocal message, whose text refer to the state of alarm of the associated point.

To create a vocal message, you can perform recordings by using PC's microphone and sound card. Or you can acquire it from an outside source (as a magnetic tape recorder, an audio CD player, etc.). In any case, the vocal message must be saved or exported in .WAV format.

4.6 Users management

4.6.1 Access restrictions to MapsGen32. Users' hierarchic levels

The users' access to **MapsGen32** is regulated by a double filter: the name of the user and his/her password. At **MapsGen32** starting, the program asks the user for inserting such data.

The users' names and passwords concerning **MapsGen32**, may be different from the ones used for **MapsUsr32** and **MapsConf32**. **MapsGen32** manages in an independent way names and password of its own authorized users.

In **MapsGen32**, each authorized user is marked by his/her name, password and hierarchic level. The hierarchic level allows the user fixed rights about **MapsGen32** use.

MapsGen32 recognizes three hierarchic user levels:

1. **Service** level: it's the highest hierarchic level. A *Service* level user can have access to **MapsGen32** without use limitations;

2. **Manager** level: it's the intermediate hierarchic level. A *Manager* level user cannot modify panel properties, nor show or exclude from using **MapsGen32** the Service level users. All the other **MapsGen32** functions are accessible to him/her;

3. **User** level: it's the lowest hierarchic level. An *User* level user can only visualize or print graphic maps. Therefore an *User* level **MapsGen32** user cannot:

   - modify panels properties;
   - manage users;
   - modify, delete or create graphic maps;
   - modify the maps tree, using drag & drop function;
   - insert new points on a map, nor modify the properties of existing points;
   - copy, cut or paste points already existing;
   - remove or modify the background image of a map;
   - modify user messages;
   - select a logo image to be shown on the desktop of **MapsUsr32**;
   - activate point modification functions, starting from the objects on map list.

Users Management

All the **MapsGen32** users management operations are accessible by clicking the toolbar Users Management button (figure 4.4).

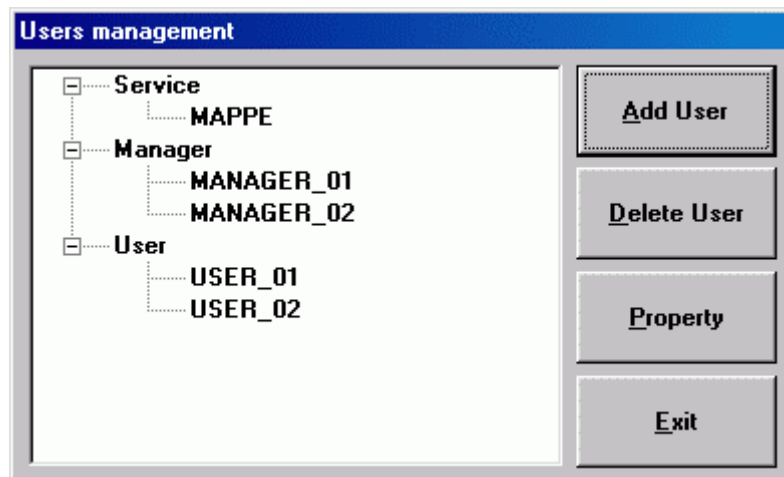By clicking the Users Management button, the Users Management window opens (figure 4.11).

Figure 4.11 – MapsGen32: Users management *window*

The Users Management window shows the users authorized for using **MapsGen32** arranged by their hierarchic level. By using the Users Management window it's possible to perform three main operations on the users' database:

1. registering name, password and hierarchic level of a new user;

2. modifying the password of an user already registered;

3. removing from the database an user already registered, i.e. preventing such a person from using **MapsGen32**.

4.6.2 Registering a new user

We use an example in order to make the explanation clearer. We suppose that the users' database contains only one user, named MAPPE (*Service* level). We want to add a new user, T_WRIGHT, *Manager* level. To do this, the procedure the MAPPE user have to perform is the following:

- 1 – click the **MapsGen32** toolbar Users Management button (figure 4.4). The Users Management window opens. This window is like the one of the figure 4.11, but it includes only one registered user: MAPPE;

- 2 – click Manager knot to select the *Manager* hierarchic level;

- 3 – click Add User button;

- 4 – User verify window opens (figure 4.12). Click the boxes and type in name and password of the user who is working (MAPPE). To confirm the data inserted, click the OK button;
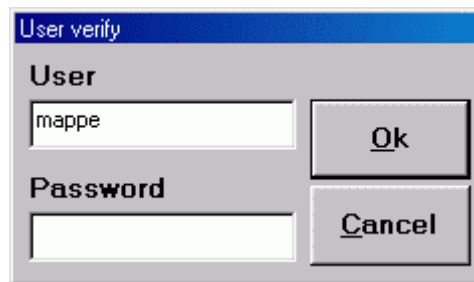
Figure 4.12 – MapsGen32: User verify *window*

- 5 – a new window now opens (figure 4.13) requesting to insert the new user's name. Type in the name (T_WRIGHT in this example) in the edit box, and confirm the data inserted by clicking the OK button;
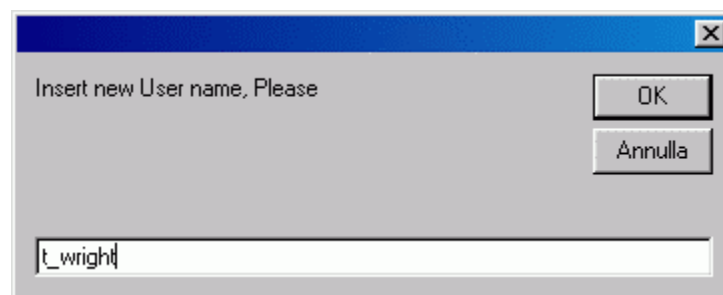

Figure 4.13 – MapsGen32: new user name insertion window

- 6 – as the new user's name is inserted, the Users Management window immediately brings up to date: the window now shows T_WRIGHT in the Manager level; you have now to register the new operator's password;

- 7 – by clicking his/her name, select the new operator (T_WRIGHT in this example) in the Users Management window;

- 8 – click the Property button;

- 9 – User verify window opens again (figure 4.12). Now type in name and password (no one) concerning the new operator (T_WRIGHT). To confirm the data inserted, click the OK button;

- 10 – User window now opens (figure 4.14). Type in the password of the new operator (T_WRIGHT) in Password and Password verify edit boxes. To validate the data inserted, click the button Password Change. Close the User window by clicking the Exit button;
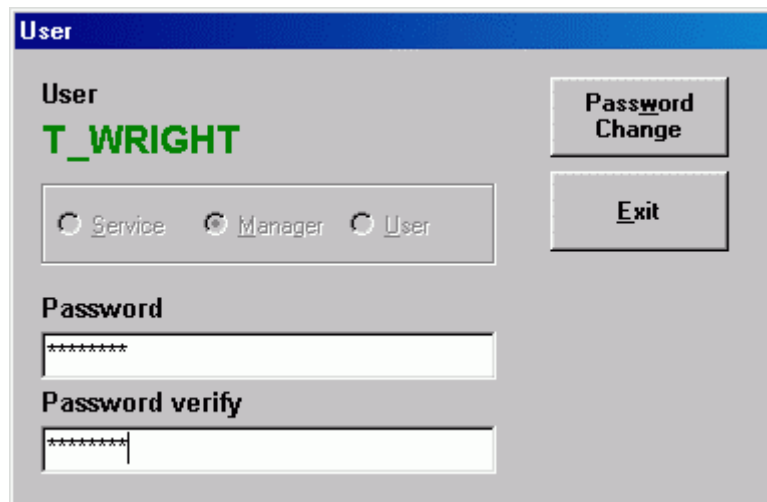
Figure 4.14 – MapsGen32: User *window*

- 11 – after closing User window, the focus returns on the Users Management window (figure 4.11). Click the Exit button of this last window to go back to the desktop of **MapsGen32**.

- 12 – to bring the users' database up to date, end and restart **MapsGen32**.

4.6.3 Modifying a user's password

To modify the password of an user authorized to use **MapsGen32**, work as follows:

- 1 – click the **MapsGen32** toolbar Users Management button (figure 4.4). The Users Management window opens.

- 2 – by clicking his/her name, select the user you want to modify the password;

- 3 – click the Property button;

- 4, 5, 6, 7 – work as step nos. 9, 10, 11, 12 described at paragraph 4.6.2.

4.6.4 Removing a registered user

To delete from the database an user authorized to use **MapsGen32**, work as follows:

- 1 – click the **MapsGen32** toolbar Users Management button (figure 4.4). The Users Management window opens.

- 2 – by clicking his/her name, select the user you want to remove;

- 3 – click the <u>Delete User</u> button;

- 4 – User verify window opens (figure 4.12). In the User and Password edit boxes type your name and your password (user currently active). To confirm the data inserted, click the OK button. The selected user is immediately deleted from the database.

4.6.5 Notes about hierarchic levels

- An *User* hierarchic level user cannot access the user management. This access is allowed to *Service* level users and *Manager* level users only.

- A *Manager* level user cannot visualize the names of *Service* level users (upper level). Obviously, a *Manager* level user cannot delete a *Service* level user.

- A *Manager* level user can visualize the names of all the *Manager* level users and all the *User* level users. If he/she knows the other user's password, he/she can delete a *Manager* level user or a *User* level user.

- A *Service* level user can visualize the names of all the users, any hierarchic level they have. If he/she knows the other user's password, he/she can delete a *Manager* level user or a *User* level user.

4.7 Customizing a logotype image

This function allows to select an image which is displayed in the "Logo" area (figure 2.5) of **MapsUsr32** desktop. The graphic file containing the image must be of supported format: .WMF, .BMP, .JPG, .GIF.

To access this function, select **MapsGen32** menu command Maps → Logo Setting. Logo setting window opens, displaying the logo image currently active (figure 4.15).
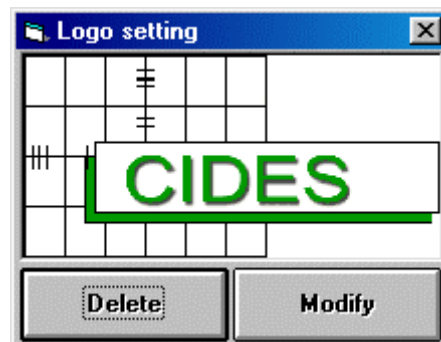

Figure 4.15 – MapsGen32: Logo setting *window*

- Click the Delete button to disable the active image: **MapsUsr32** does not show any image in the "Logo" area.

- Click the Modify button to select a different image to be shown in the "Logo" area. **MapsGen32** allows to browse the disc units in order to find the wished image. To avoid a distorted visualization, the sides lengths of the image must be in the same proportion as the ones of the Logo setting window's image box. Use small format images in order to not occupy too many system resources.

4.8 Listing objects on map

This function allows to display on screen a list containing all the objects placed on the maps. The objects can be listed in two different ways: either arranged by panels the objects are connected to, or arranged by maps the objects are placed on and panels the objects are connected to. The objects are also arranged by their nature: controlled points and CCTV activation commands. In the case of interface cards for display matrixes, the connected objects are ordered for activation command number.

To access the objects on map functions, you can use the following procedures:

Object List On Map

1. click the **MapsGen32** toolbar Object List On Map button (table 4.1 and figure 4.3);

2. select menu command Maps → Object list on map.

In both cases the window Point per panel list opens (figure 4.16).

4.8.1 Listing objects by panel

It's the **MapsGen32** default visualization mode (figure 4.16). The list is arranged having panels as main branches.
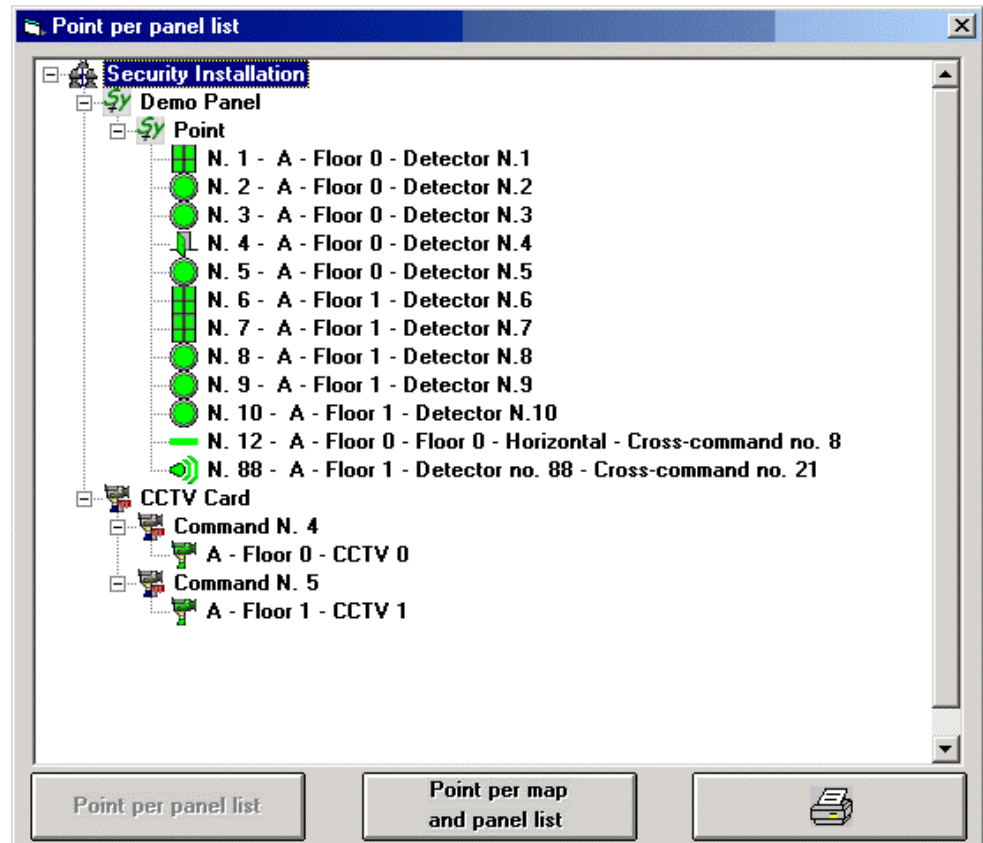

Figure 4.16 – MapsGen32: Point per panel list *window*

- The objects per panel list allows you to quickly perform Search, Update and Delete command on the selected object (paragraph 4.8.3).

- You can switch to the other list visualization (figure 4.18), by clicking the Point per map and panel list button.

- By clicking the button marked by the printer icon, you can open one or two other windows. The first one is a preview window concerning the objects per panel list. The second one is a preview window which displays the list of the crossed-commands. This second window doesn't exist if there is no crossed-command. There is a crossed-command, when the particular status of a point (which communicates with its panel) can activate also a CCTV command. The appearance of these preview windows looks like the one of figure 4.17.
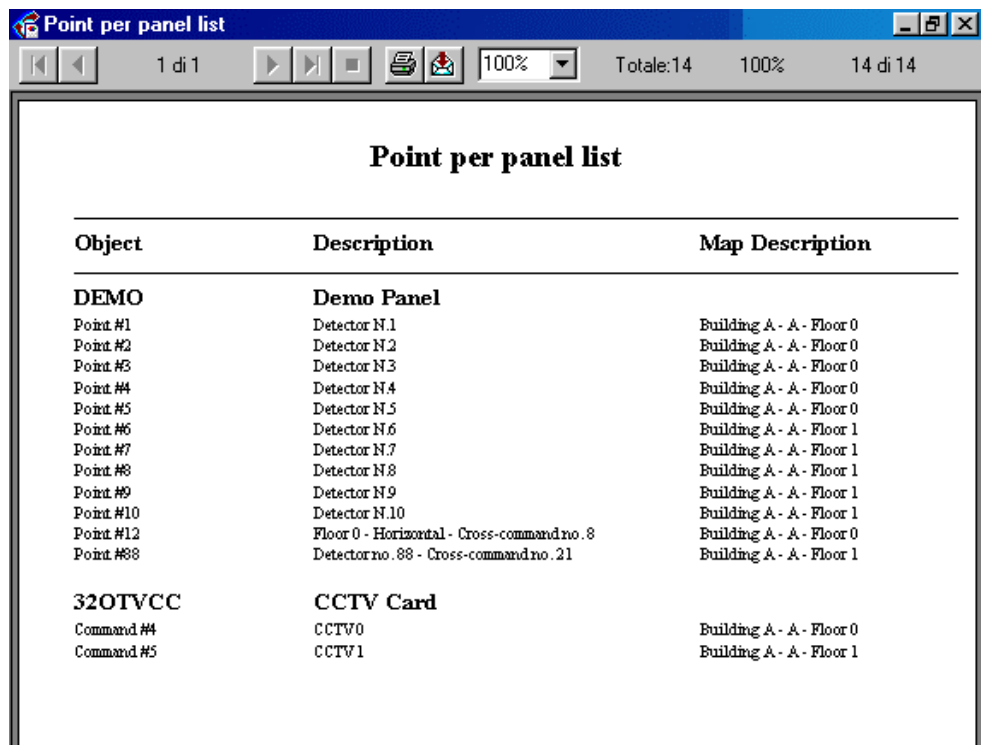
Figura 4.17 – MapsGen32: Preview window concerning the objects per panel list

Buttons and boxes placed on a preview window allow of:

- Showing, a page for a time, the printing preview of the objects per panel list
- Zooming the preview visualization
- Printing the objects per panel list
- Exporting on file the objects per panel list
- Sending by e-mail the objects per panel list
- Closing the preview window

The appearance of a preview window may vary, according to the installed Microsoft Windows version.

4.8.2 Listing objects by map

An example of this second type of visualization is displayed in figure 4.18. In this visualization mode, the objects list is arranged by maps the objects are placed on, and then by panels the objects are connected to.
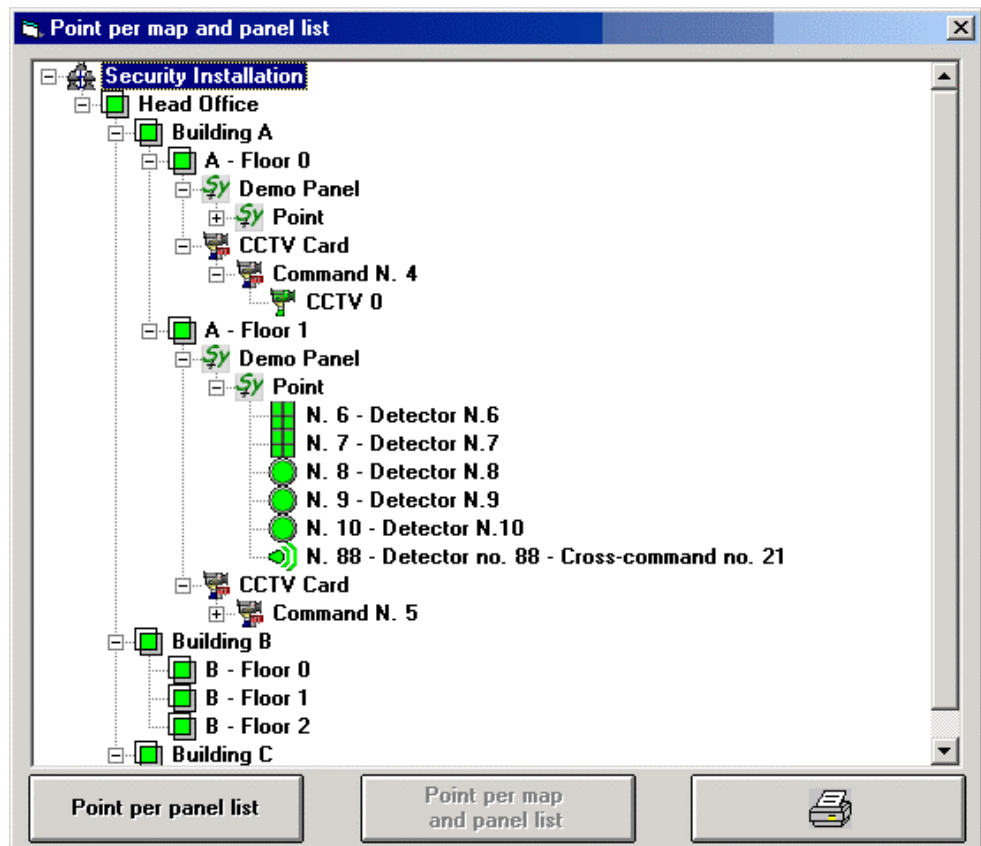
Figure 4.18 – MapsGen32: Point per map and panel list *window*

It is possible to repeat analogous considerations as the previous case:

- The objects per map and panel list allows you to quickly perform Search, Update and Delete command on the selected object (paragraph 4.8.3).

- You can switch to the other list visualization (figure 4.16), by clicking the Point per panel list button.

- By clicking the button marked by the printer icon, you can open one or two other windows. The first one is a preview window concerning the objects per map and panel list. The second one is a preview window which displays the list of the crossed-commands. The appearance of these preview windows looks like the one of figure 4.19.

- Buttons and boxes placed on a preview window allow of:

  - Showing, a page for a time, the printing preview of the objects per map and panel list
  - Zooming the preview visualization
  - Printing the objects per map and panel list
  - Exporting on file the objects per map and panel list
  - Sending by e-mail the objects per map and panel list
  - Closing the preview window

The appearance of a preview window may vary, according to the installed Microsoft Windows version.

Figure 4.19 – MapsGen32: Preview window concerning the objects per map and panel list

4.8.3 Performing operations on selected objects

From the objects list on map (figures 4.16 and 4.18) you can quickly perform some point level operations. Select an object on the list; a popup menu opens. The popup menu contains three commands: Search, Update and Delete. These commands have the following functions:

- Search – **MapsGen32** displays the map containing the selected object, which, in its turn, remains highlighted for some seconds.
- Update – **MapsGen32** repeats the search operation described above, and opens the selected object's Detector parameters window (figure 4.9). This window allows to modify the selected object parameters.
- Delete – **MapsGen32** removes the selected object from the maps.

Chapter

5

5 MAPS32CARDPROG

5.1 Preliminary considerations

In the network version of supervision system, panels must be connected to the net by suitable devices called ProControllers.

- Inside the net, the assembly, composed by a ProController and panels connected to it, is identified by the IP address set up on the ProController. Into a network using TCP/IP as communication protocol every host must have a different IP address. It's easy to set up the IP address of a ProController.

- The panels are connected to the net by means of their own ProController's Ethernet socket.

- The ProController act as a front-end among panels' net and connected PC stations. The communication is possible only among PC stations and ProControllers (and so related panels) using the same net port.

5.1.1 ProController configuration module

All the ProController parameters (IP address, net port, etc.) are easily configurable through the **Maps32CardProg** software module. To perform a ProController configuration, it's enough to use a PC locally connected to the ProController. This PC must run **Maps32CardProg** and the connection to the ProController must use serial ports.

5.1.2 ProController connections

Figure 5.1 displays the serial connection for setting up the ProController and the other communication and electric power connections.
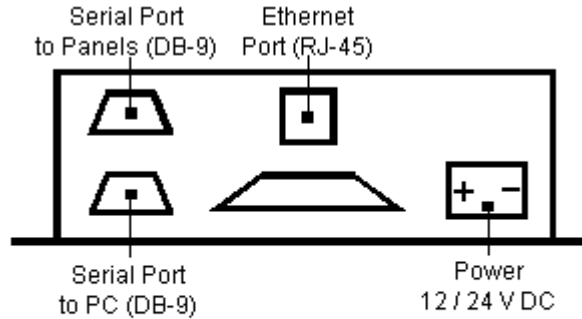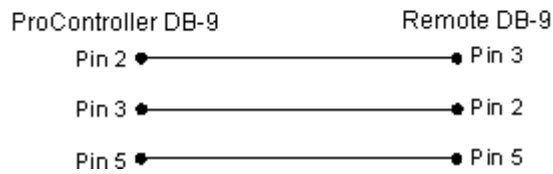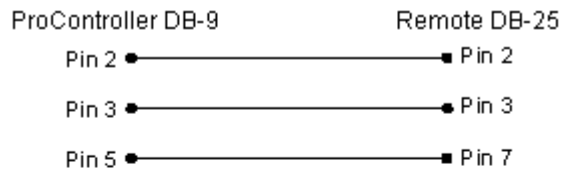

Figure 5.1 – ProController connections

- Ethernet port: it's used by ProController to connect and communicate with the supervision system network.

- Serial port to panels: it's used by ProController to communicate with the panels connected to it.

- Serial port to PC: it's used for connecting the ProController to a local PC. The local PC, running **Maps32CardProg** software, can set up all the ProController parameters.

- Electric power connection.

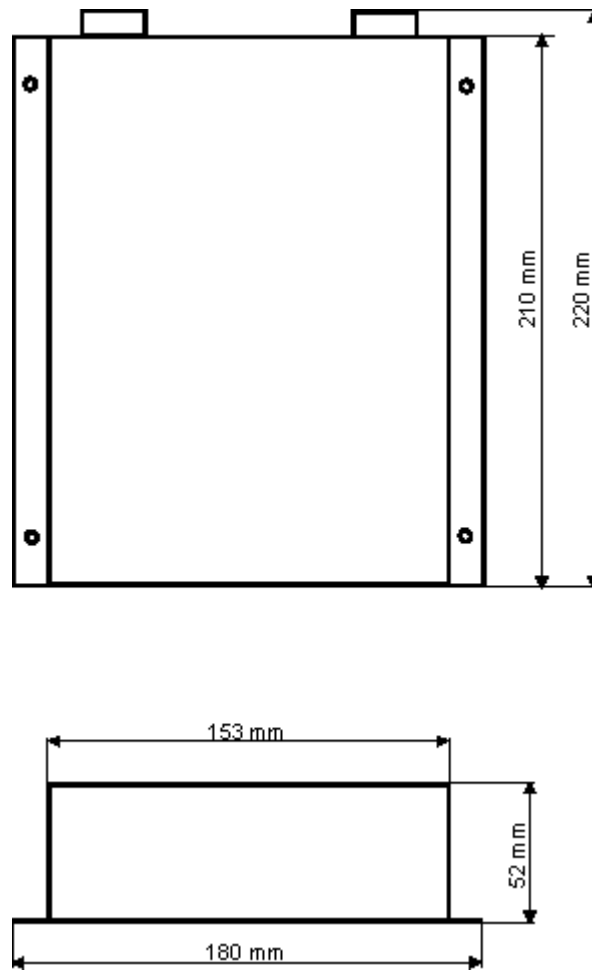Figure 5.2 displays the ProController overall dimensions.

Figure 5.2 – ProController overall dimensions

5.2 Practical use

The ProController configuration software, **Maps32CardProg**, is composed only by the executable file Maps32CardProg.Exe. Its icon is shown in figure 5.3. **Maps32CardProg** is copied on every PC station, during **MAPSKIT32N** installation. When using the default installation settings, this program is stored in the folder C:\Programmi\MapsUsr32.

5.2.1 Starting Maps32CardProg

To run **Maps32CardProg**, simply double click its file icon, displayed in figure 5.3. To locate the file, use any file search tools (e.g. Microsoft Windows Explorer).

Figure 5.3 – Maps32CardProg icon

To run **Maps32CardProg** you can also use the alternate methods provided by Microsoft Windows, e.g. clicking the Start button and then selecting Run… command.

5.2.2 Setting up a ProController

Connect locally the programmer PC to the ProController: use any available serial port on the programmer PC, and the serial port "to PC" on the ProController (figure 5.1).

Run **Maps32CardProg** on local programmer PC (see previous paragraph).

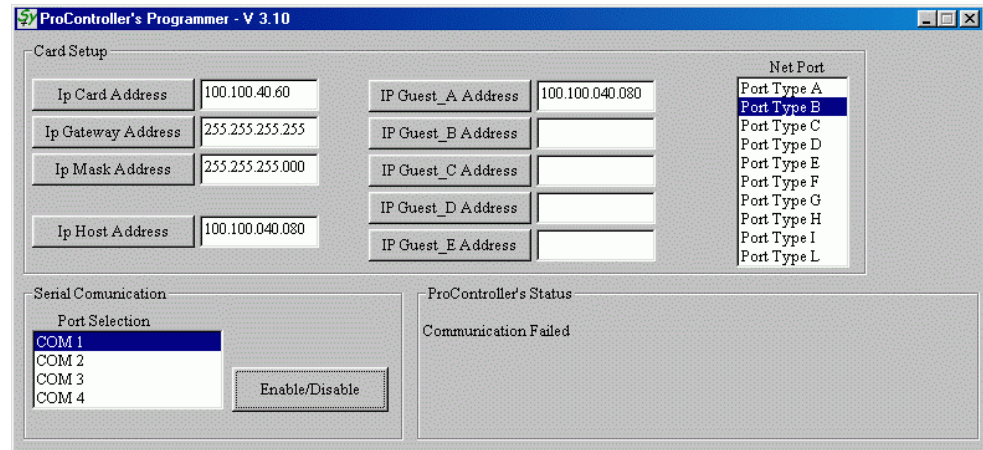The window ProController's Programmer opens (figure 5.4).

Figure 5.4 - Maps32CardProg: ProController programming form

By referring to the figure 5.4, work as follows:

- First of all, select the programmer PC's serial port used to connect it to the ProController. For this purpose:

  1. by clicking it in the Port Selection box of Serial Communication pane, select the programmer PC's serial port to be used (for instance COM 1);

  2. click the Enable/Disable button. Inside the ProController's Status pane, verify the communication status. If the communication is correct, such a pane displays the parameters currently set up on the ProController.

  To select a different programmer PC's serial port, first of all disable the one currently selected.

- After making sure about the correct communication between programmer PC and ProController, perform ProController parameters set up:

  1. By clicking on its identification name in the Net Port box, select the net port the ProController use to communicate into network. This selected net port must coincide with the one set up (**MapsConf32N** - paragraph 3.3.2) on the PC stations which supervise the ProController's panels. Otherwise, there is no communication among panels and PC stations charged with supervising them;

2. set up the requested IP addresses in the corresponding edit boxes which appear in the Card Setup pane. To set up an IP address:

- click the edit box corresponding to the IP address. The text insertion cursor appears;

- type in the requested IP address (in decimal format);

- to register the introduced IP address, click the button on the left hand side of the edit box.

In decimal format, the IP address is composed by 4 groups of digits divided by 3 dots. Each group must compose a whole number included between 0 and 255.

The IP addresses to be set up are described in the following list.

All the IP addresses must be congruent with the settings imposed to the net: to obtain more information, consult the network administrator.

- IP Card – It's the IP address assigned to the ProController you are setting up. The same IP address must be specified (by **MapsConf32N**) on the PC stations charged with supervising the ProController 's panels (paragraph 3.3.4).

- IP Gateway – It's the IP address assigned to a possible network gateway.

- IP Mask – It's the mask establishing the IP addresses resolution for the network hosts.

- IP Host – It's the IP address assigned to the only PC station set as "Host" for the ProController. From the "Host" PC station you can send the following commands to ProController (paragraph 3.3.4): disabling and enabling the remote communication among ProController and connected panels; synchronizing ProController's date and time with those of the PC; verifying ProController's firmware version; updating ProController's firmware.

- IP Guest_A, B, C, D, E - They are the IP addresses assigned to PC stations set as "Guest" for the ProController. From a "Guest" PC station you can synchronize ProController's date and time with those of the PC, and verify ProController's firmware version.

- Once finished the settings, turn off the ProController and then turn it on again. By this way the new ProController configuration is activated..

Chapter

6

6 MORE INFORMATION

6.1 Data backup

In order to protect the system configuration data, for instance all the graphic maps of the system, we recommend you to make a complete backup of the **MAPSKIT32** working folders. The information below avail for **MAPSKIT32N**. For **MAPSKIT32S** perform the corresponding operations:

- Make a backup of the folder C:\Programmi\MapsUsr32 (program modules)

- Make a backup of the folder C:\MapDrv32Drv and its possible sub-folders (registered events and system configuration settings)

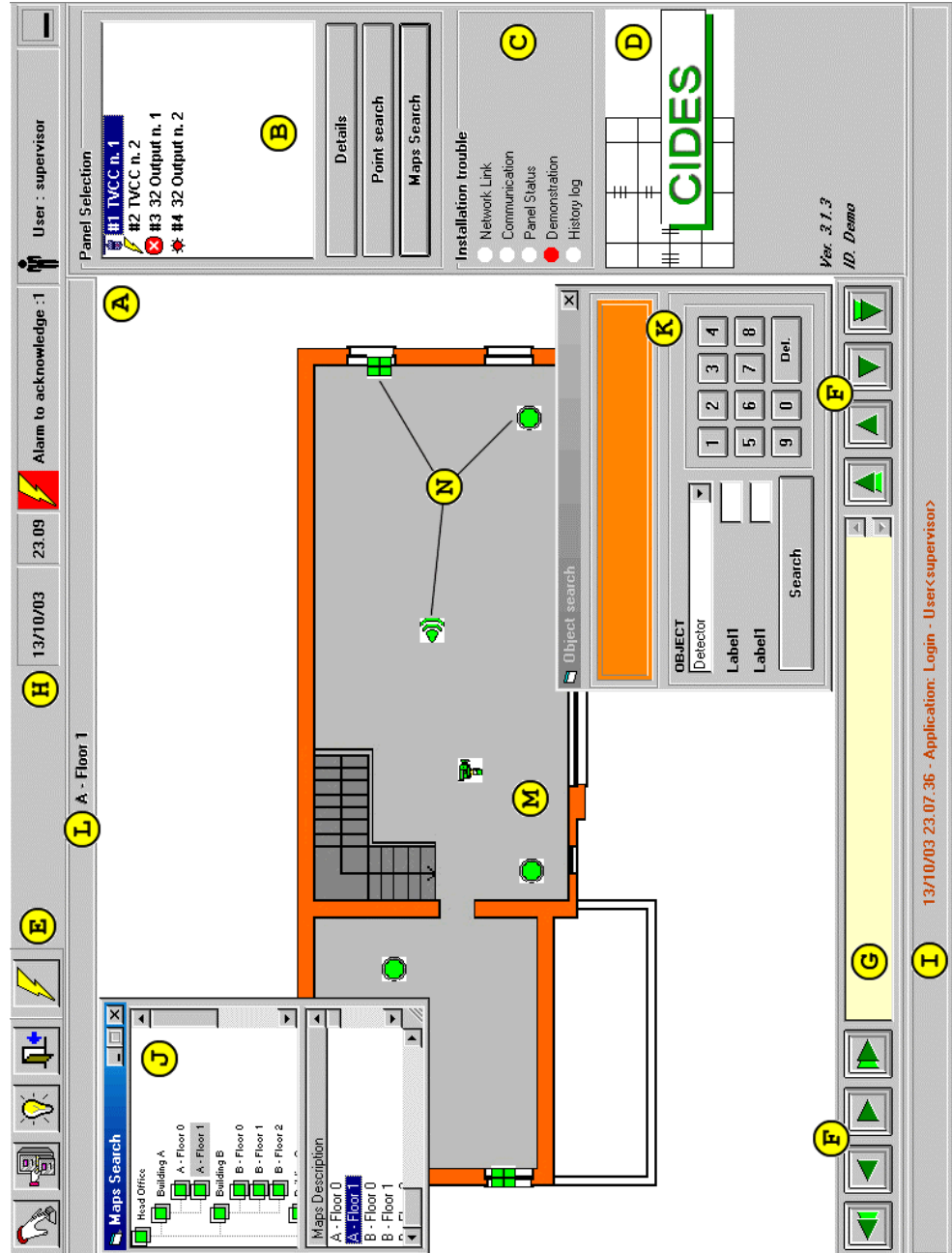- Make a backup of the folder C:\Maps32Dati and its possible sub-folders (maps configuration settings).

6.2 Programs' desktops

Into paragraphs 6.2.1 and 6.2.2, two large images show the graphic appearance of **MapsUsr32** and **MapsGen32** working desktops. Some literal references (black letters on yellow background) are placed on these images, in order to mark the main graphic elements. Table 6.1 provides the correspondences between literal references and programs' interface elements.

Ref.	MapsUsr 32	MapsGen32
A	"Maps" area	Title bar
B	"Panels" area	Menu bar
C	"Installation" area	Toolbar
D	"Logo/Point search result" area	"Maps-tree" area
E	Toolbar	"Panels" area
F	Navigation bars	"Maps" area
G	"Message-To-User" box	Map background image
H	Status bar	Daughter-map sensor icon
I	Events bar	
J	Maps Search window	
K	Object Search form	
L	Current map title bar	
M	Map background image	
N	Point icons	

Table 6.1 – Graphic interface elements schedule

6.2.1 MapsUsr32 desktop

6.2.2 MapsGen32 desktop