





I-LINK

<Analog control panel management software>
User Manual



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INTRODUCTION

The evolution of the analogic central panels has created the need to design a sufficiently powerful control tool for manage them. For this reason, Cofem has launched the I-link, which allows the control, monitoring and configuration of systems in a simple and intuitive way.

This new software makes it easy for the user to programming all elements of the installations (control panels, points, loops, relays, zones and cameras). Furthermore, all this generated information can be exported in different formats (excel, pdf or text), so that the user can have it on paper o share it with those do not have the software.

Another fundamental feature of the I-link is the online management of the control panel. Through the computer it is possible to see on real time, what occurs be it an alarm, fault or information general. In addition, depending on the privileges of the user, allows the take actions in the central panel from the computer. This option also allows the monitoring of points and the see them of the different maps or cameras.

As a final comment, the I-link software incorporates an option that allows updating the firmware of central panel form the software.





Installation

The minimum hardware and software requirements to install I-link are:

Windows® Client: 7, 8, 10.

- Processor 1.8GHz or faster
- 2GB of RAM; 4GB of RAM recommended (2.5GB minimum if running on a virtual machine)
- 1GB of available hard disk space 5400RPM hard disk drive
- DirectX 9-capable video card (1024x768 or higher resolution)

To install the software, first is necessary to install the .NET Framework package that it is in the following path:

Ilink.cofem.com/help/dn4/

After installation the package .NET, run the file **I-link.exe** that comes with the installation package provided by Cofem. After the installation wizard starts, accept the license agreement and click on the **Next** Button (see Figure 1) to start the installation process.



Figure 1. I-link's installation wizard window.





Start software the first time

When execute I-link for the first time, the user must introduce the follow username and password.

User: master Password: 9000

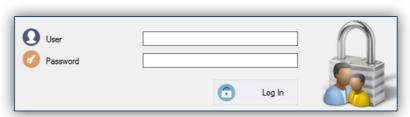


Figure 2. User's authentication window.

Once the credentials are set, press the **Login** button opens automatically

IMPORTANT: FOR SECURITY REASONS IT IS RECOMMENDED TO CHANGE THE DEFAULT USERNAME AND PASSWORD AFTER THE FIRST SUCCESSFUL ATHENTICATION.

Users

The I-link software provides several options to manage the software language, create and modify users and also to grant their permissions.

To switch user is needed press the **User Login** button (placed in the top right part of the main menu).

Users are divided in three types according to their permissions as follows:

- Administrator: The user has full control over the software. This means that any user with administrator permissions can configure all elements of the control panel (points, relays, cameras, etc), interact with it in online mode, manage the users who have acces, update the firmware of the control panel or update the I-link.
- Supervisor: this type of user can update the software and interact with the control panel in online mode (sending commands, take action on events, ...) but can not modify any aspect of the configuration.
- Technician: the technician user type can update the I-link software and monitor the functionality of the control panel in online mode.

The **Setting Users** button allows to open the windown in Figure 3, where you can add a new user, modify an existing one or delete an account. To perform any of the three actions mentioned, the user must have **Administrator** permissions.

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Figure 3. Configuration menu for users.

Select the **Add** option Add to add a new user, and then set the user name, the new password, confirm the password, select the access level, the language and finally press the **Add** button to save it.

However, to modify the user's password or the language, select the **Modify** option of Modify, set the user name, password and edit the necessary fields, finally click on **Modify** to save the changes. In this case, just an **Administrator** user can modify the account of a **Supervisor** or **Technician** user. Like to modify the account of an **Administrator** can just be done from the same account or from the account **master** (which is given by default in the I-link).

Finally, to delete an account choose the **Delete** option elete, set the user name and current password of the user to be deleted and finally press the **Delete** button elete.





Program structure

The main menu of the program is always visible and it allows the user access to the most important functionalities, which are briefly described below:



Figure 4. Top structure of the main menu of I-link

- 1. <u>CONFIGURATIONS</u>: It is the structure where the main adjustments are made, such as creating a new configuration file, open an existing one, import it from several programs provided by Cofem, exporting it, closing it. It is also possible editing the control panel's configuration, points, relays, zones, maps and cameras.
- 2. <u>EDITION</u>: This option allows you to set the maximum number of control panels to be connected, the connection type (TCP/IP or RS485), the display style, the option to view multiple cameras in the same tab, get the online mode validation code (on request) or install the driver to validate the USB connection.
- 3. <u>COMMUNICATIONS</u>: In this window, the communication with the control panel is configured by setting the necessary parameters as IP address, the port, etc.
- 4. <u>DOWNLOAD / UPLOAD:</u> It allows downloading all configurations (control panel, points, relays and zones) from the control panel to the software. It is also possible to upload the entire configuration generated in the software into control panel or delete the configuration contained control panel. Furthermore, in this section users can download the history log of the control panel in the software.
- 5. <u>ONLINE</u>: Prior the activation of this mode, please go the section **Online Mode Activation** in Management Online of the Control Panel. This mode offers important benefits of information for the controller's installation, allowing the visualization and perform actions on all events produced in the control panel more easily than from itself.
- 6. MULTIPLE CAMERAS: It enables viewing up to 12 cameras simultaneously.
- 7. <u>FIRMWARE</u>: A user with administrator rights can easily update the firmware of the control panel through this section of the software.
- 8. <u>UPDATE:</u> Updates the software to the last available version automatically.

It is possible to observe on Figure 5, the configuration of the I-link, which is always shown at the bottom of the main window of the program. It shows the connection status, the name of the



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configuration file, the number of control panels, points, relays, and zones. It also contains the screen resolution, the performance of the CPU and RAM, the date, time and the language used (pressing the language button it is possible change it). To hide or show this information bar, press the **Information** button .



Figure 5. General information shown at the bottom of the I-link main





EDITION

The fact that there is a multitude of configurations in the installations and all of them different, causes that each user needs to cover some specific requirements of the software. For this reason, the I-link allows the user to configure several aspects of the software, thus adapting to any configuration.

To that end, before opening any configuration, the user must enter the **Edition** tab menu.

When entry, a window like one the shown in the Figure 6 will appear.

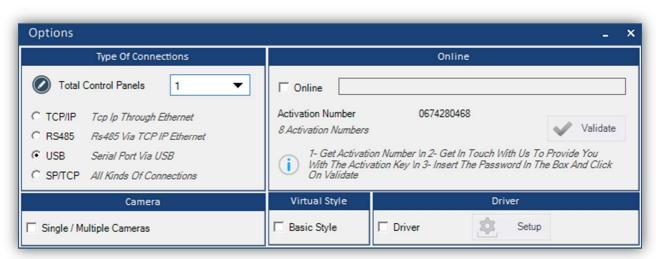


Figure 6. Menu to configure functional and visual aspects of the I-link

The user can edit the following software options:

- The maximum number of connections and the type of connection set to communicate with the control panel. The connections that user can choose are the following:
 - 1. TCP/IP. Through Ethernet.
 - 2. RS485. Through Ethernet converter (for example Moxa).
 - 3. USB. Serial port via USB.
 - 4. SP/TCP. Supports all previous connections.
- Activate Online mode. In the chapter Management Online of the Control Panel, specifically
 in Extension the software, the steps to follow to activate the Online mode are detailed.
- Enable the option to view multiple cameras simultaneously. To enable this option, the user must check the box. However, if the user just want a camera must uncheck the box.
- The basic style of the software, deletes the colorful structures, thus increasing the performance of the software. To enable the basic style check the box.



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Install the driver that allows configuring the serial communication port of the computer, so
that the I-link may communicate with the control panel. In other words, if the user do not
install the driver, the I-link may not communicate with the control panel trough serial port
(USB). Once installed, if the O.S. is Windows 7, it can see in the Device Manager of the PC the
data like the Figure 7.

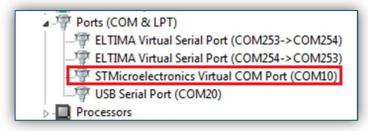


Figure 7. Information of the serial port in Windows 7





OPERATION AND CONFIGURATION

Start a configuration

First, create a new configuration to work with the software. To that end, press the Configurations

button Configurations in the main menu and the Add button or failing that, if you already have saved configurations, they are opened simply by pressing the **Open** button and selecting the path where the file is located

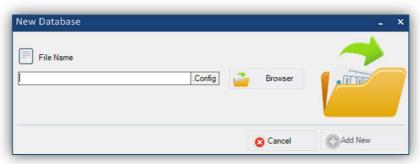


Figure 8. Create a new configuration file.

When opening an existing configuration, the program asks the user if want to work with this file or if prefers to create a backup file, to make modifications to the copied file. Thus, the user can recovery the data in case of error.



Figure 9. Create a new configuration file.

All configurations are saved automatically when the software is closed. To close any configuration press the Close button



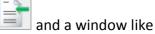


Import a configuration file

The versatility of the software allows users to work from the I-link with configurations created on other applications of Cofem like *EASY CoNET*, *EASY Lyon* or the mobile platform *Cofem Installers*. For this, it is necessary import the data in the following way:

To import a configuration, you must not have any configuration open (except when import an .acv

file into the current). To enter the menu, click the **Import** button Figure 10 will appear.



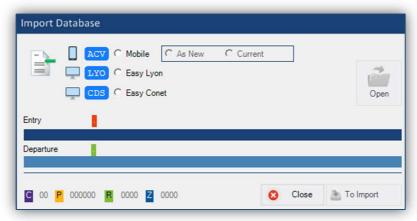


Figure 10. Menu to import configurations from other Cofem platforms

In this menu, select the platform of the file to be imported and then open the folder where the configuration file is located. Once the path is selected, the names of the files will automatically appear

in the input and output tabs. To start the import process press the **Import** button . When finished, the new generated .config file is automatically stored in the same path where the imported file is stored.

At the bottom shows the elements of the configuration: the number of control panels, points, relays and zones. When importing a configuration file with .acv extension (Cofem Installers), the I-link allows doing it in two different ways:

Import a file **As new**, in this way the program generate an empty configuration as a base on which it will be imported. On the other hand, when you selecting as **Current**, it allows importing an *.acv* configuration overwriting it over an existing one. This means that the software will insert all configurations of the imported file into current file and in the case there are repeated configurations, the software will update them, as they are stored in the imported file.

When you importing an .acv configuration file, the I-link configures by default the control panel one as a Zafir if it has two or fewer configured loops and as a Lyon if it has more than two. To change the type simply follow the steps detailed in the Chapter of **Control Panels Configuration**.





Export a configuration file

The same way that the software can import compatible configurations, it is also capable of generating compatibles configurations with the Cofem Installers platform. For this, it is necessary to export the configuration from the software in the following way:

First, the configuration must be opened in the I-link. Once open, to export a configuration, press the **Export** button and a window like the one in Figure 11 will automatically be opened.

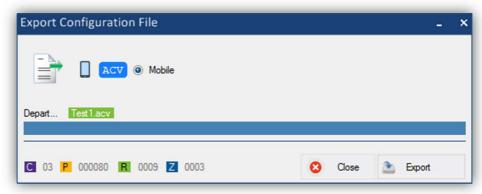


Figure 11. Menu to export a configuration

The new generated .acv configuration file is stored in the path:

C:\Users\Usuario1\Documents\Cofem\I-LINK\WORKSPACE\EXPORTED\ACV

Workspace

When a configuration file is opened in I-link, on the left side of the main menu, a workspace appears with a drop-down that shows all elements that make up this configuration. Furthermore, at the bottom there is a quick search option for points, relays and zones. To use it, select any of the three options and fill the empty fields. This window can enabled or disable by clicking on the **Workspace**

button (in the **Configurations** tab). In addition, if you click twice on any element, the configuration of it is opened directly.





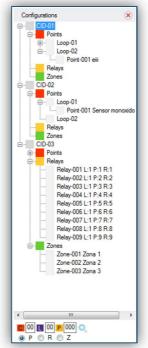


Figure 12. Workspace

Control panel configuration

When opening a configuration file, the user already can begin, edit the parameters of the elements.

To access the configuration of the control panel, click the **Control panel configuration** button (in the **Configurations** tab) and a window like the one in figure 13 will automatically open. In this window, can add a new configuration of a control panel, modify the parameters of an existing one or delete it directly. Before editing any parameter, verify that any of the three options is selected in the actions tab. **(1)**

The main settings to edit from this menu, to add or modify a control panel, are:

- The type of control panel can be Compact Lyon, Lyon or Zafir. (2)
- The control panel number, which serves as identifier when configuring points, relays or zones. This number cannot be greater than 32. The loops number, depending of the control panel can be two or more. Furthermore, more loops can be add if the installation required. (3)
- The delay times of the general sounder relay, fault relay and of the autoevacuation function. These delays allow a certain time to act before the relays activated. (4)
- Change the password of the level two and level three. (5)
- The start of day mode, night mode and the days of the week that will remain in night mode. This is used so that the relays have a different behavior by day and night, so the day mode can be activate or deactivate for all days of the week independently, so that the selected days will be kept in night mode the 24 hours of the day. (6)
- The welcome message that appears in the control panel and activate the option of synchronize the date and time of the control panel with that of the computer. (7)





• The **Data view** window shows a list of the control panels with their configuration parameters. **(8)**

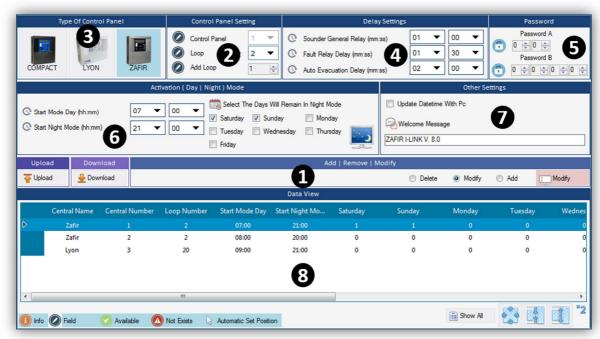


Figure 13. Menu for the configuration of the control panels from the I-

Therefore, select the **Add** option of the I-link, then fill in all fields previously mentioned, and finally click the **Add** button of the I-link, then configurations is automatically stored in **Data View**.

However, to modify the configuration of a control panel, select the control panel in **Data View** list, then select the **Modify** option Modify, edit the necessary parameters and click the **Modify** button In the **Data View** the configuration already modified will appear.

To delete a control panel, select the the **Delete** option letter, choose the control panel in **Data**View list and click **Delete** button letter. The follow figure present the confirmation menu to delete any control panel, which shows the information of the associated elements to the control panel.

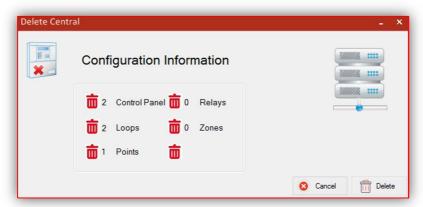


Figure 14. Menu that shows the information of the configuration of the control panel to be deleted.





Before uploading any configuration (of a control panel, point, relay or zone) from the software to the control panel or downloading form control panel to the software, the user must to establish communication between them either via USB or Ethernet (see **Communications** chapter).

To upload the control panel configuration select the configuration in the **Data View** list, press the **Upload** button and then window like the one in figure 15 will appear. To start the upload process click the **Update now** button When the status bar is in 100% it is means that the upload process has finished, to close the window click on **Close** button Close.

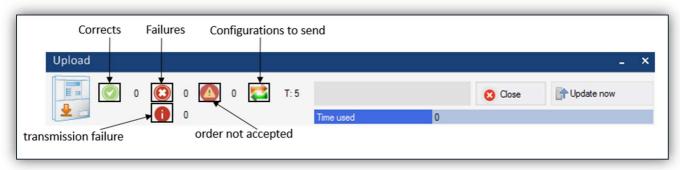


Figure 15. Menu to upload the configuration of a control panel from the program to the control panel.

However, to download the configuration from the control panel click the **Control panel Download** button button. In this window select the central number and click the **Download** button If the download process has been successful, the configuration information of the control panel should appear as shown in Figure 16.

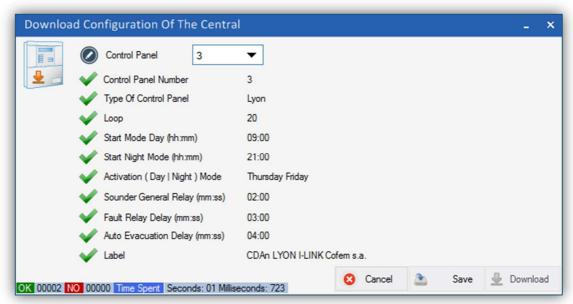


Figure 16. Menu to download the configuration of a control panel from the control panel to the program.





Points configuration

This window allows the points configurations, to access it click the **Point Configurations** button



(in the Configurations tab).

Before configuring a point, ensure that at least one control panel configuration is stored in the software. The main actions to be carried out on the points are: add a new point, modify one existing or delete individually. (1)

The basic parameters that are edited to add or modify a point are detailed below: (2)

- The number of the control panel and loop associated to the point. The maximum number of loops depends on the loops configured in the configuration menu of the control panel.
- The point number corresponds to the order of the point within the loop and cannot be greater than 199. In addition, the software provides the option to insert it automatically or manually (check/uncheck the option Auto Number). If done automatically, it increases its value by one as the points are added. However, if done manually it is necessary be avoid repeating numbers with already configured point, in which case the software returns an error message.
- The serial number is a number of a maximum five digits. This number links the physical element that forms it and can be found in the physical label of the point.
- The label is the text associated to the serial number and allows a maximum of 20 characters.

Then select the type of point from the list below and if necessary is possible to add any comments. (3)

A30HAS

A30XHA

A30XHTCO

A30XTA

SIRAY

PUCAYEXT

MDA2Y

MSTAY

MDA1Y

KMAY

MYOA

PUCAY

At the bottom of the points configuration is the **Data viewer**, which shows the points list configured with their features. This option allows filter the points by the control panel number, loop number, point number or label. To list points, choose the control panel number, the loop number or the point number and press the **Show all** button Show All. To list all points, choose the "MAX" option as shown in figure 17.

It is also possible export this list in .csv format by selecting the Excel icon . The file is saved by default in the following path: (4)

C:\Users\User1\Documents\Cofem\I-LINK\WORKSPACE/EXPORTED/EXCEL





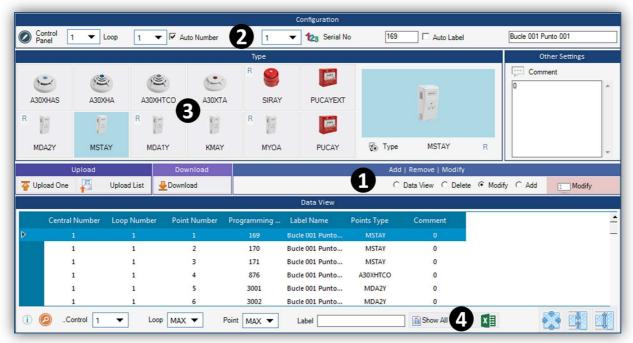


Figure 17. Menu to configure points from I-link.

As in the same case of the control panels, select the **Add** option Add to add a new point to I-link configuration, then fill all fields, and finally click the **Add** button Add. To modify a point configuration, selected it in the list, select the **Modify** option Add. To modify a point configuration, selected it in the list, select the **Modify** option Add button and the necessary parameters and click on **Modify** button For delete a point you must select the **Delete** option Selected, select it in **Data View** list and click **Delete** button Delete. The **Data View** option simply displays the information of the point selected in the list.

When uploading points, from the I-link to the central, there are two options: upload a point individually or upload a list with all points shown in the **Data View** list.

To upload a point individually, you must select that point in the list and press the **Upload point** button

Pupload One

However, to upload a list of points, fill the fields of the **Data View** and click on **Upload**list of point button

For download points from control panel, click **Point Download** button and a window like the one in Figure 18 will open. Once inside, select the control panel, the loop (in case of downloading the points of all loops, select the "MAX" option) and the point or points (selecting the "MAX" option) and click on **Download** button. At the bottom of the window, the section called Log contains a register of the points that have been downloaded with their configuration parameters.





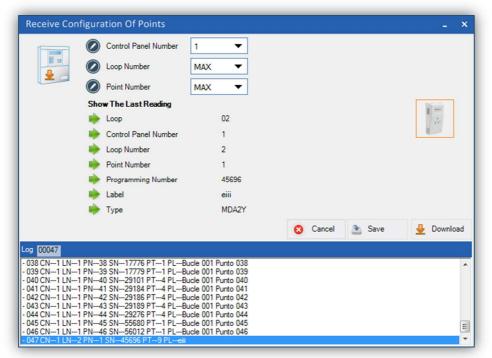


Figure 18. Points download menu from the central to the program.

The example of the previous figure presents the download of all points (of all loops) of the central number 6.

Note: Remember to establish communication between the control panel and the program before loading or downloading configurations.

Relays configuration

For access to the configuration menu, click the **Relays configuration** button (in the **Configurations** tab). Before configuring any relay, ensure that have points stored in the configuration.

This menu presents all information necessary to correctly configure the relays. As in the previous configurations, the actions to be performed are: add, modify or eliminate a relay. (1)

The configuration of the relays is done as in the control panel:

• Link the relay to the point, for this select the control panel and the loop corresponding to the point. Then, clicking on the field of the point automatically shows the points containing relays. The software returns an error message if the selected loop has no point containing relays. When you select the point, appears an image of the point type to the MDA2Y (module of two relays) under the image you can choose which relays (R1 or R2) is configured. Subsequently, a numerical value is assigned to the relay to identify it in a same control panel (it can be a maximum of 32 in the *CompactLyon*, 64 in *Zafir* and of 199 in *Lyon*) and a label, which can be automatic or manual, of up to 20 characters. (2)



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- Set the delay times, depending on the point that causes the activation of the relay. This point can be a push button (configured as day or night mode) or a detector (also configured as day mode or night mode). That is, configuring these times allows the relay to be triggered immediately, after a certain time that the alarm is triggered or that does not trigger directly. Depending on the configuration of the point that causes the trigger of the relay if it is a detector configured in day mode or night mode, or if it is a push button in day mode or night mode. The maximum time allowed is 9:59 minutes (3)
- Set the type of relay action: (4)

1. Sounder

2. Operation

3. Relay Crossed L

- 4. Relay Crossed S
- 5. Relay
- 6. No (Deactivated)

- Set the activation type: (5)
 - 1. General activation: The relay is triggered with any alarm.
 - 2. By zone: The activation of the relay occurs when an element of the selected zone is in alarm. There are two options to configure the zone. One is before configuring the relay (see **Zones configuration**) or at the moment of configuring it, pressing the **Zones configuration** button.

Like the Points configuration, to shows the relay in **Data view**, select the control panel number, the loop number, the relay number or the label. If you want list all relays you must choose the "MAX" option in the control panel box.

It is also possible to export the relays list (on the same path as in the section of points configuration) in .csv format by filling in the fields of the control panel, relays, label and pressing the **Excel** icon





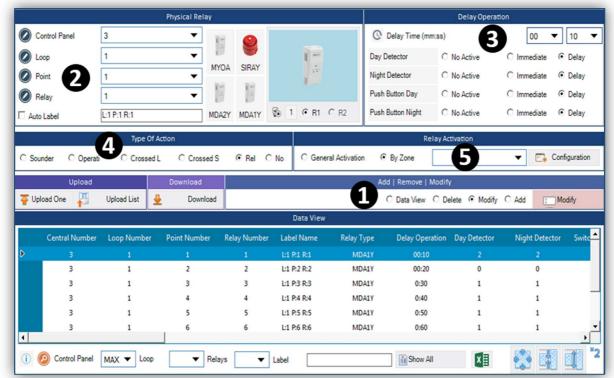


Figure 19. I-link menu to configuring the parameters of the relays.

To add a new relay, click on the **Add** option Add, then edit its parameters and click the **Add** button to save the new configuration.

To modify the relay configuration, first click on **Modify** option Modify, then select it in the **Data**View list, edit the necessary parameters and click on **Modify** button to save the new configuration.

Instead, for delete a relay, select the **Delete** option Delete, select it in the **Data View** list and click on **Delete** button Delete Delete.

Before uploading or downloading any relay, verify if the communication between the I-link and the control panel is right.

To upload just a relay from I-link to the control panel, select it in the **Data View** list and click on **Upload relay** button However, for upload all relays of the **Data View** list fill the fields of the control panel, relay or label and click on **Upload list of relays** button

To download relays from the control panel to the I-link, press the **Relay Download** button and a window like the one in figure 20 will open. In this window, select the control panel number and

Download button. In the relay configuration section there is the information of the last relay and in the list of relays shows the different lists associated with the activation of the relays.

the relay number or in the case of downloading all relays choose the "MAX" option and click on





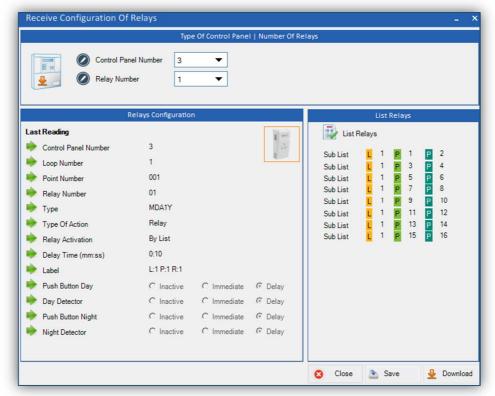


Figure 20. Relay download menu from the control panel to I-link.

Zones configuration

To enter in the zones configuration menu, click on **Zones configuration** button (in the **Configurations** tab).

The main options to do in this menu are: add a new zone, modify an existing one o delete it. (1)

When accessed for the first time, the option by default is the **Data view** Option just allows visualize the saved zones configuration. Nevertheless, to show the zones in the Data View list, you must first select the control panel number in the **Zones Configuration** section.

The parameters to edit to configure a zone are the following:

- The control panel number corresponding to the zone, the zone number (up to 99 maximum per control panel) that will serve to identify the zone in the list and a label of maximum 20 characters. (2)
- Select the points list that set the zone. To do so, choose, in each case, the loop that contains the starting point and the end. In this option, you can add up to 8 combinations in the same zone. (3)

Note: You cannot include the same point in two different alarm zones.





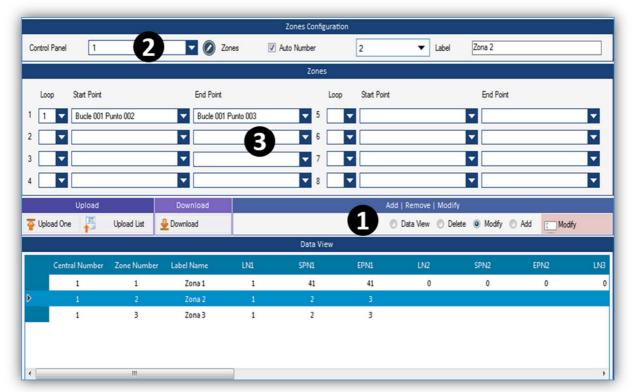


Figure 21. Menu to configure the parameters of zones in I-link

Select the **Add** option of to configure a new zone, then edit its parameters and finally click on **Add** button to save the new configuration. Instead, to configure one that already exists, select the corresponding control panel in the **Zones Configuration** section to display all the zones in the **Data View** list, then select the zone to modify and the **Modify** option and after editing the necessary parameters click on **Modify** button to save the configuration. For delete a zone, select the **Delete** option opelete, then select it in the **Data View** list and click on **Delete** button opelete

The procedure to uploading or downloading the zones is the same as the points or relay, i.e. to upload just a zone to the control panel, select it in the **Data View** list and click on the **Upload zone** button Upload One. To upload a set of zones that appears in the **Data View** list click on **Upload list of zones** button Upload List.

To download the zones configured in the control panel press the **Zones download** button and will appears a window like one the Figure 22.







Figure. 22. Menu to download the configuration of zones from the control panel to the I-link.

Print configuration

I-link allows print all saved configurations. To enter to the print configuration menu, click on the

Print configuration button (in the **Configurations** tab). From the menu, select the control panel number and the elements to be printed. In the case of the points, they can be printed all at once or by loops.

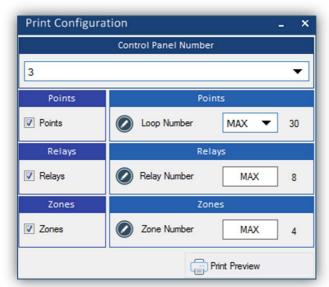


Figure 23. Menu to print the saved configurations in the I-link.



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Pressing the **Print Preview** button opens the preview window like the one in Figure 24, which shows a preview of the configuration report. To print the report select the printer, if you want to print a page or all and press the **Print** button.

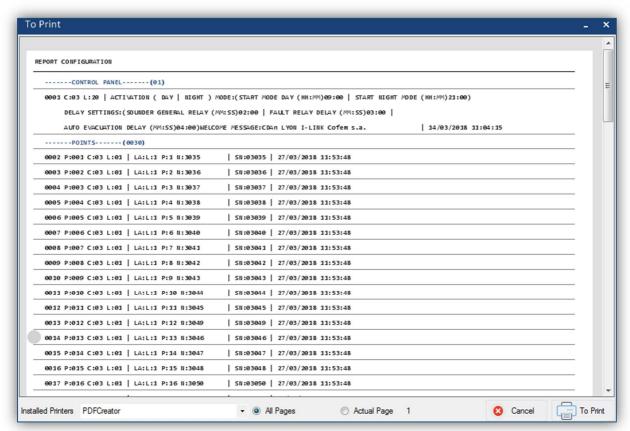


Figure 24. Preview of the configuration report.





GRAPHIC REPRESENTATION

Maps configuration

The purpose of the maps is to interact with the points of the installation easily and thus can be locate physically the events received in the control panel.

To configure a map, open the configuration menu of maps (pressing the Maps configuration button



in the **Configurations** tab). This menu is divided in several structures, which are detailed below:

- The central structure shows the distribution of the points over the imported image. Here, can add, edit or delete the points on the map. To obtain a greater accuracy to place the points or the cameras on the map, the software shows the cursor position to the horizontal and vertical axis. In addition, it is possible to zoom the image with the mouse scroll or move the imagen with the left mouse button. (1)
- The "Points" structure contains the points list and cameras saved in the I-link configuration. Furthermore, it has a cursor to move around the map when the user does not need to insert any element. (2)
- The map preview shows to see how the map looks with the points. (3)
- The "Properties" structure present the specifications of selected point, such as its label or its geometric properties on the map. Also contains the button to add a new map. (4)
- The list of configured maps, where it is possible to rename the map, replace one with another, export it as an image or delete it. In the list, each map appears with the number of points and cameras configured. (5)





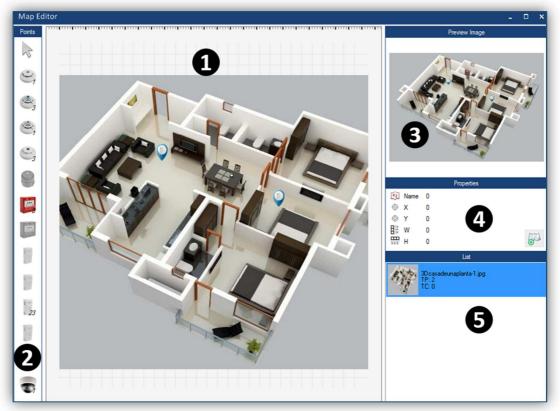


Figure 25. Maps configuration menu in the I-link.

The image that is used as map must have a valid format. Therefore, the formats that the program accepts are: .png, .jpg and .jpeg.

To add a new map, click on the **Add map** button (in the **Properties** section) and select the imagen in the corresponding path. When add a map, the image is opened automatically in the central structure and added this to the list of configured maps.

The software just allows add points and cameras that have been previously configured. For this reason, before adding a point or a camera check if they are correctly configurations.

In the **Points** section, the correctly configured points and cameras are enabled allowing to add them to the map. The numbers that are next to the icons of the points refer to the times this type of point is repeated in the I-link configurations. To add a point, select it and place it on the map. Then, a window like the one in Figure 26 appears, in which choose the control panel and loop corresponding to the point and if want to associate a camera. The software returns an error if the control panel and loop do not match with the point.





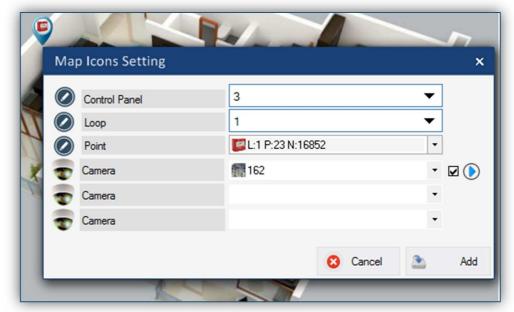


Figure 26. Menu to setting the parameters of the points on the map.

If the color of the point's label is red (as shown in Figure 26), it means that the point is already on the map, so the software avoids repeating points.

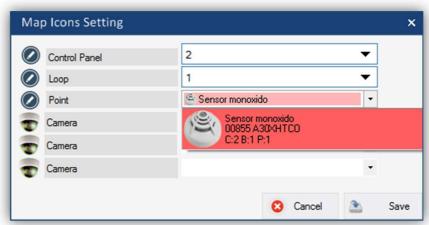


Figure 27. Duplication of points on the map.

Before associating a camera with a point on the map, it must be configured. The chapter **Camera Configuration** explains how to configure a camera.

The software allows associating a maximum of three cameras per point. In case of associating three cameras, only the first can have configured the *autoplay* function. This function is enabled by checking the box next to play icon and works like this: when an event occurs (alarm, fault ,...) in the associated point on the map the video of the camera will appear automatically in the "Camera" section of the **Online** mode. In addition, it is possible to associate the same camera to different points.

On the map, it is possible to check the point configuration, placing the cursor over its icon. The information of the point that appears is the following:







Figure 28. Point information.

- Control panel
- Loop
- Point
- Serial Number
- Label
- Type
- Cameras

After adding a point, the program offers the possibility to see the associated cameras live. To do this, right-click on the point icon and select the **View of the camera** option, as shown in Figure 29.

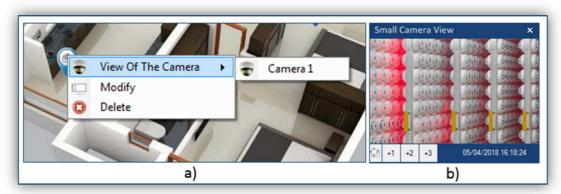


Figure. 29a. Settings menu of points on the map after inserting. 29b. Small camera view from map menu.

In the camera view, it is possible to adjust the size of the window with the +1, +2 and +3 buttons. Where +1 is the smallest size and +3 is the largest.

In the **Porperties** window, there are the label and position of the selected point on the map with respect to the horizontal and vertical axis.

Finally, by selecting the map in the list and by pressing the right mouse on it, it is possible to change the name of the map, replace the map image with another one, export the map as an image or delete it.

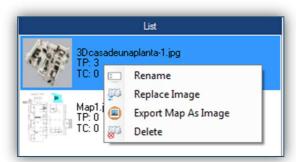


Figure 30. Main settings of the maps.





To rename the map, select that option and edit the name of the new map in the window in the window of the Figure 31.

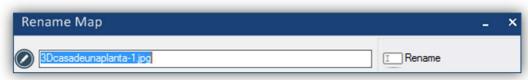


Figure 31. Menu to rename the map.

If select the **Replace Image** option, the window of Figure 32 is opened showing, on the one hand, the image of the old map and, on the other hand, that of the new map. To select the new map click on

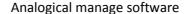
the **New map** button . In this case, the software keeps the structure of configured points, changing one image for another simply, without having to re-insert the points.



Figure 32. Pop-up menu to change the map image.

On the other hand, when exporting the map, the program exports it with the points configured in the image. This image is saved in the following default path:

C:\Users\User1\Documents\Cofem\I-LINK\MAP-SNAPSHOT







Cameras configuration

I-link allows working with IP cameras. These cameras work using the IP protocol and are capable of send of sending video and audio signals through any computer connected to the Internet.

To access to the Cameras configuration menu, click on **Cameras configuration** button (in the **Configurations** tab). When entering, the software shows a structure like the one in Figure 33 (but empty), which consists of the following sections:

- The camera viewer allows viewing the video of the configured camera. The software incorporates additional functions (located at the bottom of the viewer) such as: pause, stop or resume video recording, rotate the image 180°, make a screenshot, consult the configuration parameters of the camera or the status of the communication. In addition, if the camera allows it, it is possible to change the focus position manually, using the arrows at the ends of the screen. (1)
- The list of cameras configured with their configuration parameters (label, IP address and port). (2)
- The actions to make, either add a new camera, modify an existing one or eliminate it. (3)
- Every IP camera has a user and password associated to access its configuration, therefore, to make any configuration these parameters must be inserted, in addition to its IP address and port. The software allows associating a label to identify the camera in case there are several configured. (4)
- Adjust the quality of the image, from 5 to 25 frames per second. Furthermore, it allows activating the Onvif protocol, which guarantees interoperability between cameras of different commercial brands. (5)
- Enable or disable the option to make a capture of the image and the option of playing the camera when selecting it in the list. To enable either of these two options, check their corresponding boxes. (6)







Figure 33. Menu to configure cameras from the I-link.

To add a camera in the I-link configuration, select the **Add** option Add and fill the following parameters: IP address, port, user, password and identification label. Finally, to enable or disable the

Capture and Autoplay functions, check their boxes and click on the Add button to save the new configuration.

At the end of the configuration, it is possible to access to the commented functions in the section of camera's viewer (rotate image, make a capture, etc.), by right clicking on the image that appears in the camera's viewer. To make a capture of the camera image, the camera has to in play mode. The captures saved in the following path:

C:\Users\User1\Documents\Cofem\I-LINK\WORKSPACE/SNAPSHOT/

To adjust the quality of the image, it is possible to increase or decrease the number of frames per second.

On the other hand, to modify the configuration of a camera, select the **Modify** option Modify, edit the necessary parameters and press the **Modify** button to save the configuration. To delete a camera select the **Delete** option Delete, then choose the camera in the list and click on the **Delete** button .





COMMUNICATIONS

First, select in the Edit menu the type of connection and the number of exchanges that will connect to the I-link.

In the case of communicating with the control panel through an USB cable, it is necessary to install the driver (commented in the **Edition** chapter) and configure the parameters that are detailed below. It should be noted the importance of correctly configuring the parameters (both USB and Ethernet), otherwise, the I-link will not allow access to many of its functions.

To enter to the communications menu, click on the **Communications** button menu.



of the main

As shown in Figure 34, there are two possible ways to communicate:



Figure 34. Menu to choose the type of connection with the control panel.

• **Serial Port:** This communication is done through the USB protocol. For this reason, the cable has to comply with the USB 1.1 regulation, with connector type A to connect the PC and type B for the end that connect with control panel.

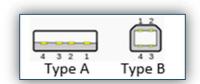


Figure 35. Connectors of the USB cable

By selecting the **Serial Port** option, a window like the one in Figure 36 opens. Here, introduce the port used by PC to communicate with the control panel (in the corresponding control panel number). Click on the **Update** button , to update the port list automatically. In case the port does not appear, reinstall the communication driver. After entering the parameters click on the **Connect** button to establish the connection.







Figure 36. Menu to set the configuration parameters of the serial port.

The blink of the led **TxD** indicates that the correct connection. It is also possible to check the communication parameters, by clicking on the **Information** icon :

CID 02 Version 6.1 Loop Total (2) PortName COM4 BaudRate 9600 DataBits 8 Parity None StopBits One Handshake None

Figure 37. Communication parameters

In addition, from this window, the I-link allows users with administrator permissions, to update the firmware of the control panel, by pressing the **DFU** icon (for the firmware update consult the **Firmware** chapter).

• Ethernet: The connection between the PC and the control panel can be through an Ethernet network, via an RS-485 converter module, because the control panels do not allow direct connection to Ethernet. In case of using a Moxa, to configure it in a local network (LAN), follow the steps of the document Manual of Use of the Ethernet Module that facilitates COFEM with the purchase of the module. If connect the module in other network (different to LAN), contact the network administrator to configure the module. At the end of the configuration, the user must know the IP address and the port of the module to enter subsequently them in the I-link.







Figure 38. Ethernet to RS-485 converter module.

In the Ethernet connection menu, shown in Figure 38, you have to fill in the IP address field

and port that correspond to the number of the control panel and click **Connect**. If the connection is correct, the green led of **Port** will be on and orange led of **Status** are will blink.

Note: The port that has the Ethernet module, by default, in a local LAN network is port 4001.

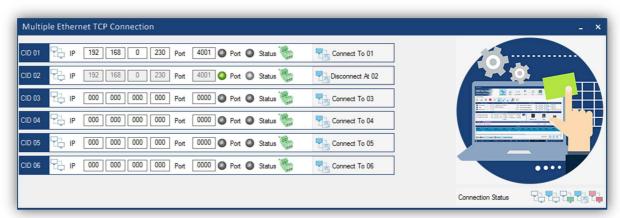


Figure 39. Connection menu of the I-link with the control panel via Ethernet.





GENERAL DOWNLOAD / UPLOAD

From the I-link it is possible to send and receive all configurations of the control panels, points, relays and zones stored in the control panel, in addition to receiving all events registered in the history and even delete the items saved in the configuration of the control panel. To access to this

functions, click on the **Download/Upload** tab of main menu. Before performing any of the following actions, communication must be established between the program and the control panel.

General download

This function allows to receive all configuration stored in the control panel simultaneously.

When clicking the **Download general** button , a window like the one shown in Figure 40 will open automatically. Here, select the control panel number and check the boxes of the items to download.

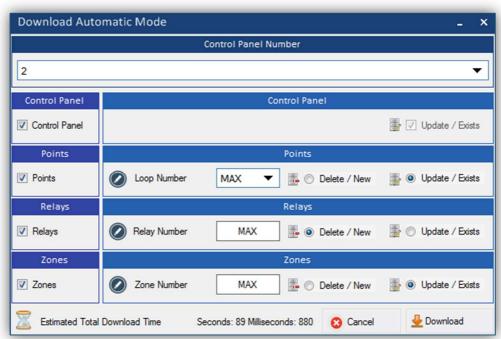


Figure 40. Menu to receive the general configuration stored in the control panel.

In the points section, it is possible to choose between downloading all the points of a loop or of all the loops (by selecting the "MAX" option). In the case of relays and zones, simply check their boxes and all configurations will be downloaded.

When saving the configuration in the software, it offers two possibilities. The **Delete/New** option Delete / New consists of deleting the configuration stored in the I-link and adding the downloaded





Finally, click on the **Download** button to start the general downloaded process.

General upload

This function permits sending to a control panel all configurations saved in the I-link. The operation is simple, when uploading the configuration, the control panel delete the saved configurations automatically and add the new configurations of the I-link. In the case of not selecting any element (control panel, points, relays or zones) the control panel will keep the configuration it had.

For example, to upload the configuration of the points and relays and keep the configuration of the control panel and zones, simply have to check in the upload general menu the box corresponding to the points and relays, as shown in the Figure 41.

To access to this function, click on the **Upload general** button



Figure 41. Menu to send the general configuration of the I-link to the central.

The procedure is similar to that of download general. That is, first select the control panel number and then choose the items to upload. In the points, it is possible choose between uploading the points of a loop or all points of all loops. To start the general upload process, click on the **Upload** button









History download

The control panel stores a register of all events that have occurred in chronological order, from the most recent to the oldest, with a maximum of 1021 events. From the I-link it is possible to receive all these events, downloading the history of the control panel. Like from the control panel, the software allows to filter the events by type, either alarms, faults, etc.

Furthermore, the I-link offers other complementary functions, to facilitate the user the management of events such as saving the history in different formats, printing it, select the last event, etc.

To enter to the history menu, click on the **Download history** button . Next, a window appears like the one shown in Figure 41.

In this menu, the software offers two options to work with the history. One is to open a file that is saved previously, clicking on the **Open** button and other is to download the history of the control panel.

To do the latter, select the control panel number, then insert the number initial and final of the list and finally click on the **Download** button If do not fill the boxes of the initial number and final, the software download by default the 1021 events that store in the control panel. At the end of the download, the software allows to filter the events according their type.

In addition, if the **Select the last one** function (located at the bottom of the window) is checked, select at all times the last event it is receiving, showing the most current events.

In the example of the Figure 42, the download of all events from 1 to 20 of control panel number 2 is shown.







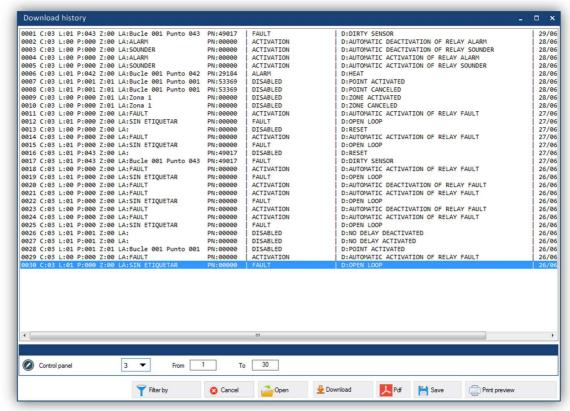


Figure 42. Menu that shows the history of the control panel.

When finish the download process, the program allows filtering the received events by type and/or the date. To access the filter menu, click on the **Filter by** button Filter by.

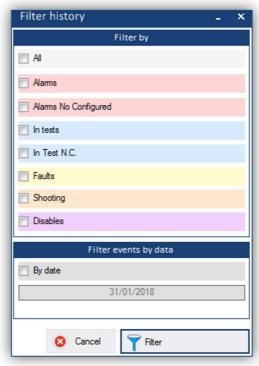


Figure 43. Menu to filter the events of history.



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It is possible to save the register of the downloaded events in different formats: format .pdf, clicking on the **PDF** button or format .pro, clicking on the **Save** button.

To print the history click on the **Print preview** button Frint Preview. The Figure 44 shows the preview of the history before being printed.

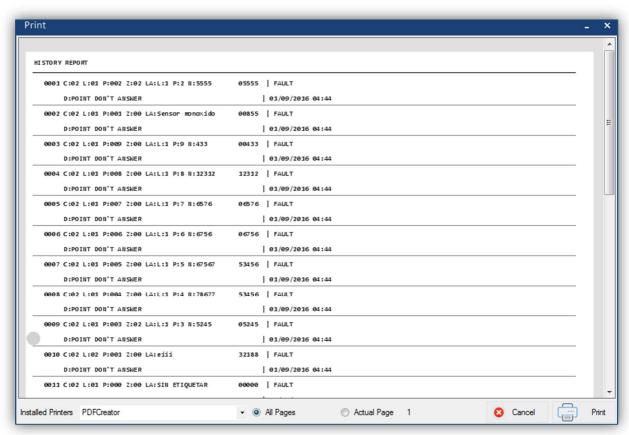


Figure 44. Preview of the history report.

Before to print, select the printer and the option of print all pages or just a current page. Finally, click on the **Print** button to print the final report.

Next, there is done a brief description of the information that appears in the history report:

- C → Control panel
- L → Loop
- P → Point
- Z → Zone
- LA → Label
- NS → Serial number
- D → Description





Delete general configuration (in the control panel)

The software is able to delete the configurations stored in the control panels in a simple and intuitive way.

The fact of deleting the general configurations of the exchanges from the I-link, offers the installer advantages in terms of resources and time.

Click on the **General delete** button , to access to the menu of the delete general configuration.

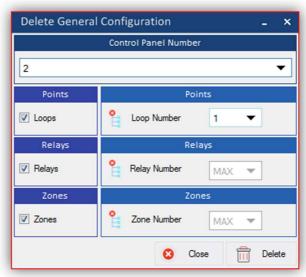


Figure 45. Menu to delete the general configuration stored in the control panel.

When entering to the menu, select the control panel number and check the boxes of the items to be delete. In the points, it is possible select it of a loop or of all loops. Then, click on **Delete** button

Delete and window like the one in the Figure 46 automatically opens.

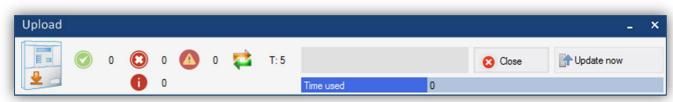


Figure 46. Confirmation menu to delete the general configuration.

Finally, click on the **Update now** button to start the delete process.





MULTIPLE CAMERAS

The I-link offers the possibility of observing all the cameras configured simultaneously (maximum 12 cameras), thus facilitating the control of the cameras.

To access to the menu of the multiple cameras, press the **Multicamera** button. Entering, can observe a window divided into 12 sections (as in Figure 47), which correspond to each of the cameras configured.



Figure 47. Multicamera menu that shows all configured cameras in I-link.

To view the cameras trough this window have to configure in the **Configuration of cameras** menu previously.

The example in the Figure 47 shows that cameras 1 through 10 are configured and activated. However, camera number 11 is configured but not activated on this window. The box of the number 12 appears empty because in the configuration of cameras there are only 11 configured.

To activated them, click-right on the box and appears a menu at the bottom part. In this menu select the camera in the empty pull-down where the label of the camera will appear once the camera has been selected. In addition, this menu the following functions: play , stop , rotate the image

make a capture , see the connection parameters of the camera and if the camera allows, change the focus with the cursors located at the ends of the image.





MANAGEMENT ONLINE OF THE CONTROL PANEL

Software extension

The I-link contains an option of continuous communication with the exchanges, more commonly known as Online mode.

To access the functionalities of this work mode, you have to contact with COFEM and provide the activation number found in the **Edition** menu (see **EDICIÓN** chapter). Then, will receive via email or telephone, the activation key to insert and validate. Once validate the key, you have to check the Online box, to enable the Online button in the I-link.

The activation of the Online mode will endure while do not uninstall the software.

Structure of Online mode

After the successful activation process, you can already get the functions offered by the Online mode.

This mode permits to the installation controller, to act on the connected control panels, without having to be present in the same place. Another important feature that facilitates the user's management of the control panel is that allows monitoring and managing the produced events, in a simpler and more intuitive way than from the front panel of the control panel.

It is important consider that during the time that Online mode is open, changes to the configuration are not allowed from the front panel of the control panel, to avoid possible data conflicts.

Note: Remember to open the Online mode, first establish the communication with the control panel (see the **Communications** chapter). Furthermore, it is worth noting that the software does not allow working with other modes (to configure items, download or upload items, etc.) simultaneously that you are working with Online. Therefore, at the end of the Online mode close it to access other functionalities.

To enter in the Online mode, click on the **Online** button like one in the Figure 48.

of the main menu and open a window





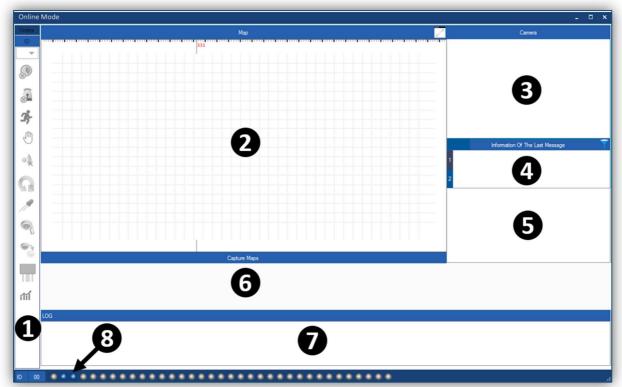


Figure 48. Structure of Online mode from which the events received from the control panel can be managed.

The structure is distributed of the following way:

- Orders: This section shows all buttons corresponding with the different orders that can be performed from the front panel of the control panel and others that are performed form the access level 1, which are the following: (1)
 - ➤ No delay: Disables the delays of the configured relays.
 - ➢ Silence sounders: Deactivates all relays that are configured as sounders.
 - > Evacuation: Activate all relays configured as sounders and operations.
 - ➤ Manual mode: Set the control panel in manual mode and disables the automatic activation of relays.
 - ➤ Stop buzzer: Stop the buzzer when it is ringing in the control panel.
 - ➤ General reset: Executes a full reset of the control panel.
 - > System test: Turn on all LEDs and darken the screen.
 - > Test mode: Set the central in test mode or normal mode, by zones or general.
 - ➤ Enable/Disable: Allows disable or enable points or zones of the control panel.







- ➤ Logical relays: Activates or deactivates the logical relays and the configured as sounders or operations, separately.
- > Monitor: Shows in real time the values of concentration of smoke or temperature of detectors.
- **Map:** In this window appears the point and its associated map, in which the most current event has occurred. So helping the user to locate the point physically. To the map appears, previously you have to add the point on the map (see the **Map configuration** chapter). **(2)**
- Camera: As in the map, when an event occurs at a point associated with a camera, it appears in this window. Allowing the user to see what happen at all times. In addition, this window offers several additional functions like make a capture, see the camera information, rotate, play, pause, stop the image and (if the camera allows it) change the focus using the cursors located at the ends of the image. (3)
- Information of the last event: In this section, the first and last events produced in the control panel connected to the I-link are shown. (4)
- Events list: Here, all events produced in the control panel with their information appear organized in a list, except for the events related to the activation/deactivation of general relays and logic relays. The list is organized by chronological order, i.e. the first event is the oldest event while the last is the most current. The user can reset the events, clicking-right on them. It is also possible to filter the events according to their control panel and their type. (5)
- Capture of maps: All maps associated with points with events are displayed. In this case, the user can choose the map he wants to open in the Maps window, because in that window just the map associated with the last event produced appear. (6)
- Event log (LOG): Here, the date and hour of the events produced in the control panels and the actions that perform form the Online mode are recorded, either reset an alarm, activate a relay, enable a point, etc. (7)
- Activate of control panels: It contains the buttons to activate the control panels in Online
 mode. The buttons can be three colors depending on their status: the gray means that the
 control panel is not connected to the I-link, while the blue means that the control panel is
 connected but it is not activated in the Online mode and finally the green means that the
 control panel is activated in Online mode. (8)





Operation of Online mode

To start working with Online mode, have to activate the control panel (or control panels), clicking on the **Activation** button corresponding to its ID (control panel number) located in the **Activate of control panels** (at the bottom of the Online window). The green button indicate that the activation process in Online mode has been successful.

Note: To activate the control panel, the **Activation** button corresponding to its ID must be blue. If the button is gray, connect the control panel with I-link (see the **Communications** chapter).

By activating the control panel, a pop-up window like one in Figure 49 is opened, which downloads all events of the control panel automatically.

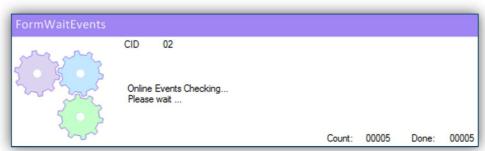


Figure 49. Pop-up window from which the events of the control panel are received.

After receiving all events, the pop-up window closes automatically. The figure 49 shows that when activating the control panel number 2, the I-link receives (in the **Event list** of the Online mode) all the events of the control panel in chronological order. That is, the first event that occurs appears first on the list and as more events occur, it adds them to the list. Each type of event has a color, for example, pink with an alarm, yellow with faults, etc.

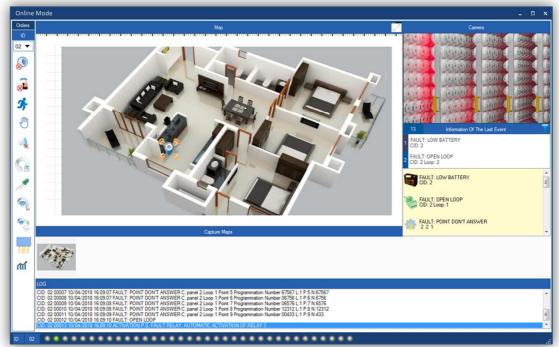


Figure 50. General structure of the online mode with the events of a control panel connected to the I-link.





To filter the events, depending on its control panel or its type, click on the **Filter** button and a window like the one in Figure 51 opens.

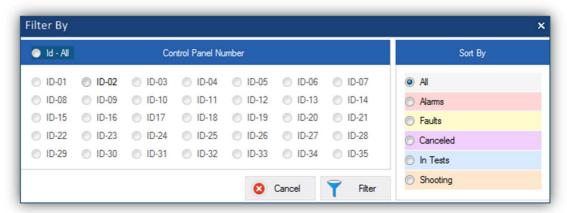


Figure 51. Menu to filter the events according to their control panel and their type.

To reset an event, select it from the list of events and right-click on it until a window as the one shown in the following figure appears. When selecting the **Rearm-Reset** option the event automatically disappears from the list and the control panel.



Figure 52. Reset an event from the I-link.

In this example, the map and the camera appear because one of the received events has occurred at a point that has a map and a camera associated with it. On the map, it is possible to move the image and adjust the zoom to obtain a greater accuracy of the physical situation of the point. In addition, if click-right on the point, it is possible to see through the camera and to monitor a point.



Figure 53. View or monitor a point.





There are two ways to monitor a point: from the **Orders** section or directly from a point when an event occurs in it. In the first case, when entering the monitoring menu (by clicking the **Monitor**

button (i), select the control panel, the loop and the point to monitor. While in the second case,

when entering the menu, just click on the **Monitor** button and the graph begins to sample the different values of temperature or smoke concentration (depending the type of detector). In both cases, a window like the one in Figure 54 opens.

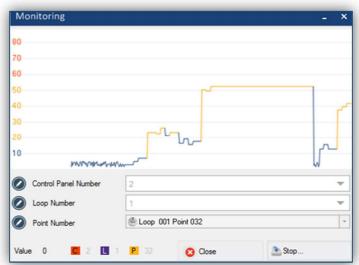


Figure 54. Monitoring graph of a smoke detector.3

In addition, when activating the control panel in the Online mode, the **Orders** section is enabled automatically. In the case of activating several control panels, it is possible to send the orders to all or separately. To do it individually, choose its ID (at the top), instead, to send the orders to all control panels, select the option "MAX".

The first seven orders are activated directly by pressing their button. However, for the rest of orders you have to follow some steps to activate them. Next, presents a brief explanation how activate them:

• The Figure 55 shows the menu to activate the Test mode of a control panel. To access to the menu click on the **Test Mode** button.



Figure 55. Activation menu of Test Mode in a control panel.





This menu offers two possibilities: activate the Test mode in general o by zone. In both cases, to activate the Test mode, check its box (for the zones select also the zone number) and click on the In Tests button Normal button.

• The menu shown in Figure 56 allows enable/disable zones or points individually. To enter, click on the **Enable/Disable** button



Figure 56. Menu to enable or cancel points or zones of a control panel.

By default, the configured points and zones in the control panel be enabled .To cancel them, in the menu, select the zone or point to be canceled and click on the **Cancel** button. To enable again, press the **Enable** button.

• The figure 57 shows the activate/deactivate menu of logical relays configured in the control panel. To enter, click on the **Activate relays** button



Figure 57. Menu to activate/deactivate logical relays in the control panel.

In the menu, it is possible to activate or deactivate any relay that is configured in the control panel. This menu also allows activating all relays configured as sounders (clicking on the **Activate sounders** button) or activating them configured as operations (clicking on the **Activate operations** button).

When finish working with the Online mode, before closing the window, deactivate the control panel, pressing the button corresponding to its ID, in the Central Selector. When the button is blue, the Online mode can be close





FIRMWARE

One of the keys of the I-link is that it allows to update the firmware version of the central remotely. However, only users with administrator permissions can do so.

To update the firmware it is necessary that the control panel is connected with PC trought an USB cable and in **DFU Mode**. There are two ways to update the firmware:

• Manually: To enter mode DFU in the control panel manually, turn on the control panel pressing and holding the STOP BUZZER and RESET keys at the same time. By starting the control panel, it shows on the display that is in **DFU Mode**.

Finally, in the I-link click on the **Firmware**



button of the main menu.

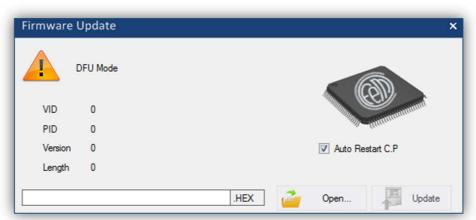


Figure 58. Menu for updating the firmware of the control panel.

Automatically: From the USB comunications menu, press the DFU button which will be
enabled when the control apmel is connected. Whe pressing the DFU button, the control
panel get into DFU mode automatically and the menu of updating the firmware on the I-link
opens.

In the update menu, select the path of the .hex file to be loaded in the control panel, clicking the **Open** button open. If the **Auto Restart C.P.** box is checked, the control panel will restart at the end of the update process. When loading the file, on the left side of the menu appears its information: like firmware version or the size.

Lastly, click on the **Update** button Update to start the update process.





UPDATE I-LINK

The user can check the if the I-link version is the last. To check it, click on the **Upadte** button of the main menu. If there are not updates avalable, when opening the menu, this inform us that do not exist updates avalables. If, instead, there are updates available, by entering appears a window like the in Figure 59.

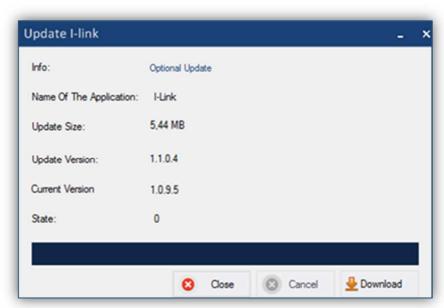


Figure 59. Update menu of the I-link.

This window shows information about the software like the type of the update (optional or security), size of the update, the update version and current version. When clicking the **Download** button the software starts the download, showing the status by a progess bar at all times.

It is also possible that by starting the software requests an optional update or security update. If it is an optiona update, it is possible do not to update it and the I-link will be executed. Althought if it is a secuity update, it is necessar to update it to continue using the software.