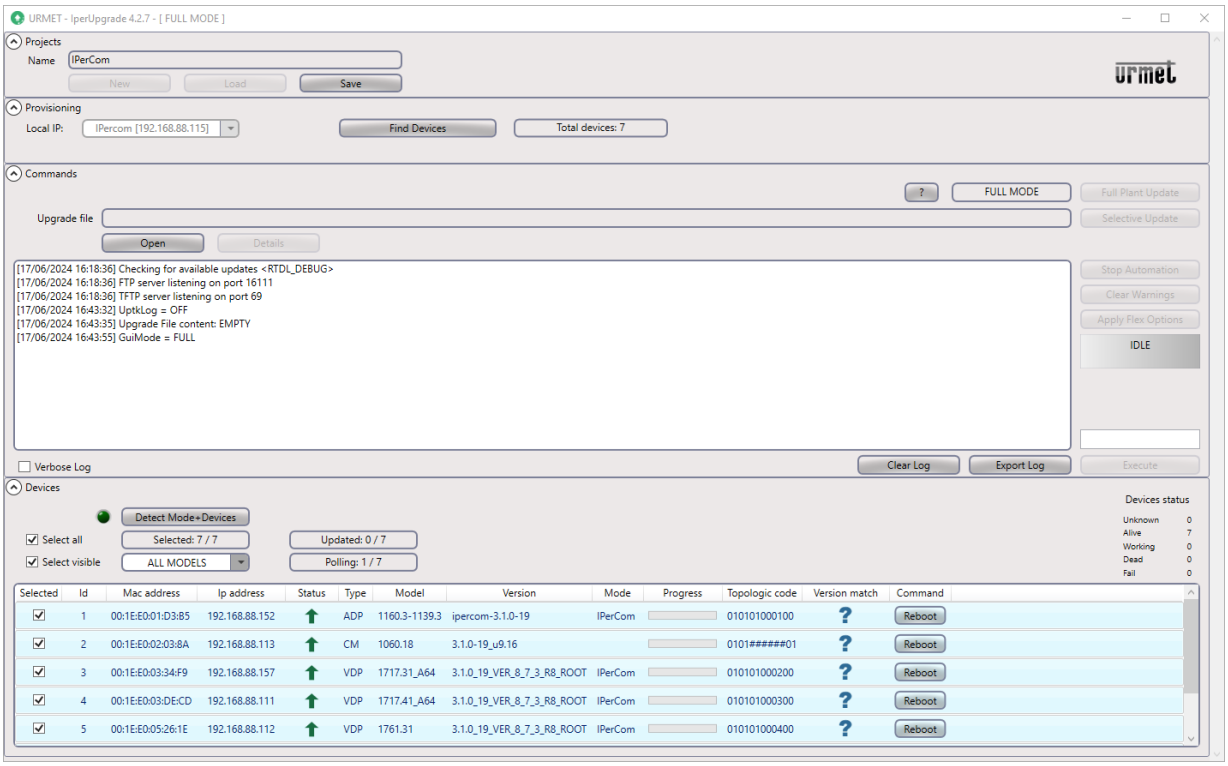
Mod. 1060

DS1060-126E **LBT20463**

IPERUPGRADE INSTALLATION AND USER BOOKLET



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1 INTRODUCTION

The *IPerUpgrade* application allows updating the firmware of IPerCom system devices. The list of devices that can be updated is shown in the following table:

System	Device	Ref.
IPerCom	Call Module (Elekta)	1060/12-13
	Call Module (Elekta Steel)	1060/17-18-23
	Modular Calling Station with 1060/48	1060/48 (*)
	Entry Panel (Sinthesi Steel)	1060/71-74-75-78
	Entry Panel (Mikra2)	1060/21-33-34
	Private Call Module (Mikra2)	1060/22
	Switchboards (software application and device)	1060/41-42
	Video door phone 7'' *VOG*^{7}	1761/31-31U-32-33-33U
	Video door phone 5'' *VOG*$^{5+}$	1761/15-15U-16-16U-18-19
	Video door phone 5'' *VOG*^{5}	1761/6
	Video door phone 10'' MAX	1717/21-21U-22-22U-23-23U
	Video door phone 7'' Basic	1741/1-2-3
	Video door phone 7'' MAX	1717/3x-4x
	Video door phone 10'' (for Chinese market only)	1761/23
	IperCom Client (software application)	1060/43
	Door phone Miro	1160/3
	Server	1060/1
	Gateway 2Voice	1083/59
	Clock Module	1060/85
	IPerCom Gateway for Windows (software application for Chinese market only)	---

Table 1: list of IPerCom devices that can be updated by IPerUpgrade

*(*): 1060/48 is the reference code of the audio/video IP module. For the other reference codes that make up the push button panel, see the relevant booklets on the website **www.urmet.com** or **the system technical manual for the installer**. 1060/48 and 1168/1 (display module) are the only modules that can be updated.*

The *IPerUpgrade* application also allows updating the call forwarding devices and video door phones with integrated call forwarding device shown in the following table:

System	Device	Ref.
2Voice	Multi-user call forwarding device	1083/83
	Call forwarding device	1083/58-58A
2-wire system	Call forwarding device	1722/58-58A
	Call forwarding device	1723/58-58A
	Video door phone with call forwarding	1723/98
4+n door phone	Call forwarding device	9854/58

Table 2: list of call forwarding devices and their related system that can be updated by IPerUpgrade

When describing how to perform the firmware upgrade, reference will be made to an IPerCom system: what is reported also applies to the updating of devices listed in ***Table 2***, except contrary indication.

To perform the upgrade correctly, the PC where the IPerUpgrade application is running must be connected to the IPerCom system by means of a LAN cable and not via Wi-Fi. Furthermore, the LAN cable must be connected to one of the system switches and not to the router.

The IP address of the network card, through which the PC (where IPerUpgrade is running) connects to the IPerCom system, must belong to the same IPerCom subnet.

To be upgraded, the Switchboard and IperCom Client software applications must be running on 2 separate PCs and the IPerUpgrade application must be running on a third PC.

The firmware upgrade of the other IPerCom devices (Relay Actuator, Key Reader, Lift Interface, iPassan Controller, IPerTalk Server and RTSP Cameras) is not made via IPerUpgrade.

2 HARDWARE AND SOFTWARE REQUIREMENTS

PC hardware and software minimum requirements are the following:

- Windows 10 / 11 operating system with quad core CPU and frequency greater than 2GHz;
- SSD disk with capacity of 256GB or greater (no hard disk);
- 8GB or more RAM memory;
- 1 network card 10/100/1000 Mbit/s.

3 INSTALLATION

The installation procedure starts launching the related set up file, which can be downloaded from ***Urmet site*** (login is required).

During the installation phases, follow the indications displayed from time to time in the different windows.

To perform correctly the installation procedure of IPerUpgrade application, the user must access the PC with system administrator rights; otherwise, the installation will not be properly performed.

After having chosen the installation language, the following window is displayed:

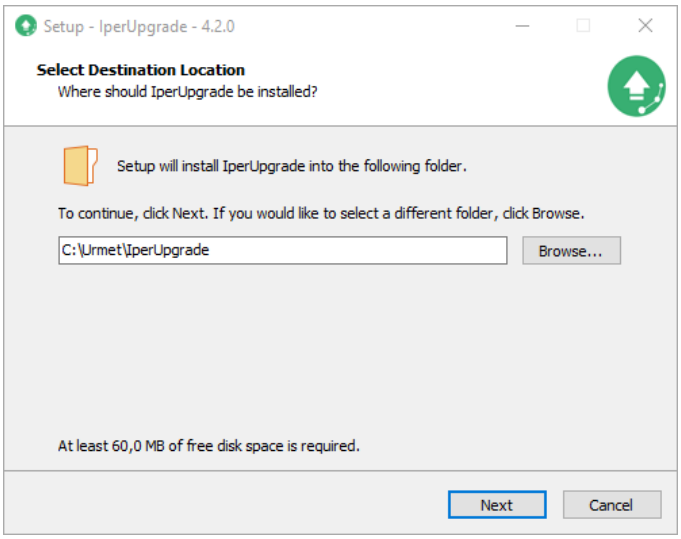


Figure 1: installation phase

The folder where the application will be installed is highlighted (you can change the folder using the "*Browse*" button). By pressing the "*Next*" button, this screen appears:

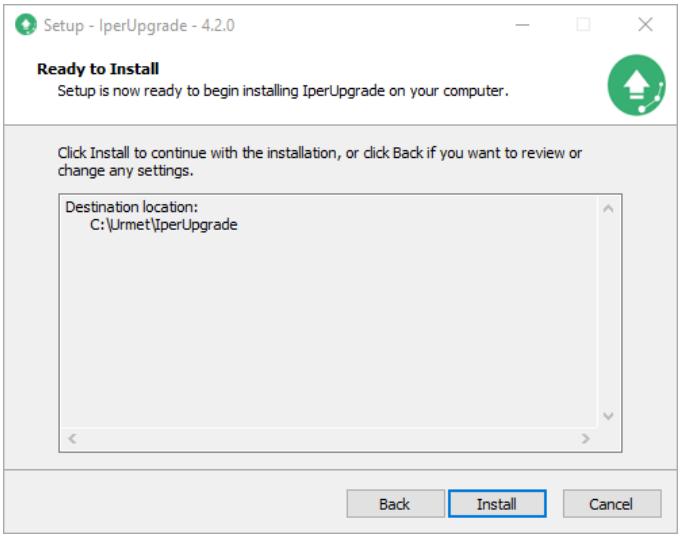


Figure 2: installation phase

Click on button "*Install*" to start installation process:

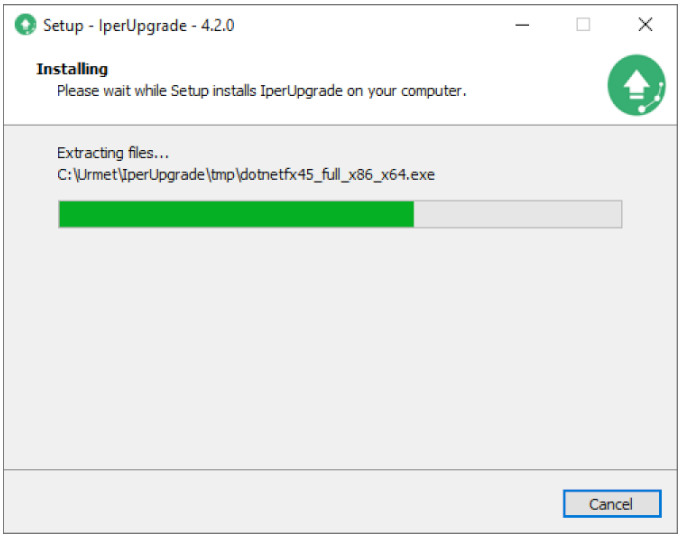


Figure 3: installation phase

At the end of the installation, the following window appears:

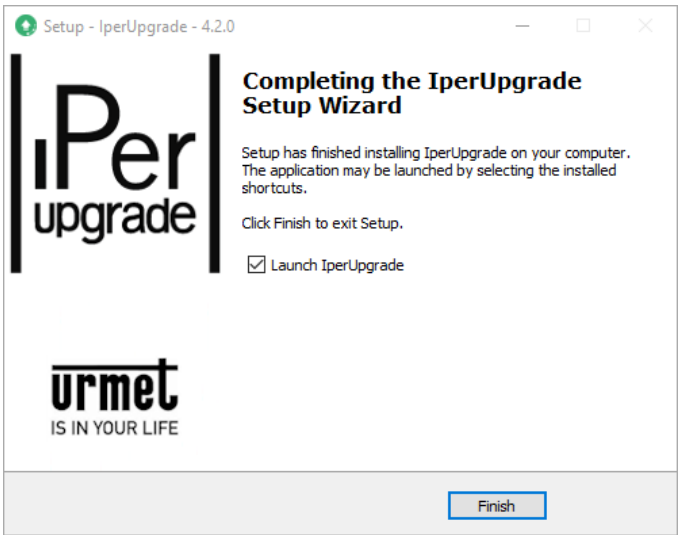


Figure 4: installation phase

Installation of application has been completed properly.

Check then that the folder where the application has been installed (*C: \Urmet\IPerUpgrade* for example) allows the user a complete access. To check this:

- Start "*File Explorer*" and find *IPerUpgrade* application folder,
- Click with the right-hand button of the mouse on the chosen folder and select the menu item "*Properties*",
- Click on the tab "*Security*" and check that the user or the group have the *full control* of the folder.

4 WINDOWS FIREWALL CONFIGURATION

During the first run of the application (click 2 times with mouse on related executable file desktop shortcut), Windows operating system could ask the user to open the ports on IP network used for communication between IPerCom system and *IPerUpgrade* application. This operation is needed to make the system work properly. If the protection is performed by *Windows Firewall* module, the following message will be displayed:

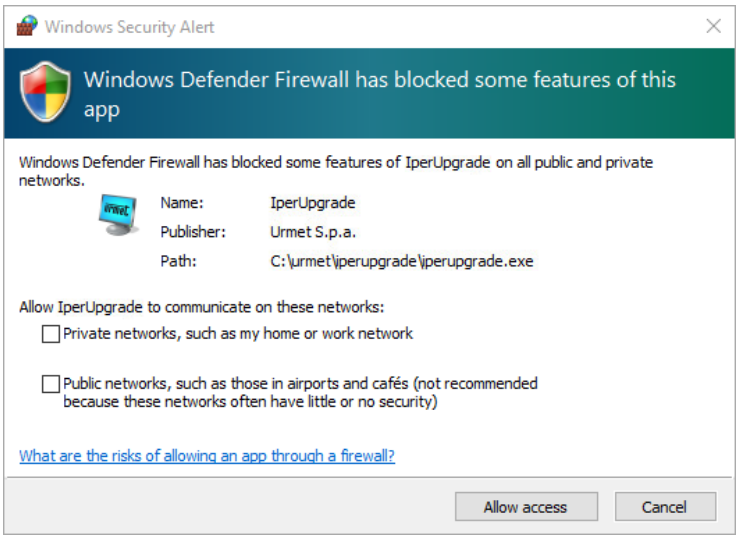


Figure 5: opening Windows firewall ports

You must select both types of networks and press the "*Allow access*" button to continue.

5 AUTOMATIC UPDATE TO THE LATEST VERSION AVAILABLE

At each start the application checks if there is a more updated version than the one installed on your own PC in presence of an Internet connection.

If these two conditions are met, a message like the one below is displayed:

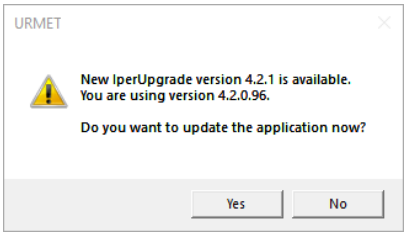


Figure 6: most updated version available

Press the "*Yes*" button to start downloading the new version:

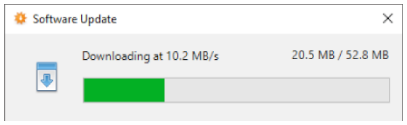


Figure 7: latest version downloading

As soon as the upgrade is finished, the installation starts.

Upgrades can be optional or mandatory: in this last case if the upgrade is not performed, it is impossible to start the application.

If the lack of Internet connection persists for a period longer than 3 months, *IPerUpgrade* shows the following warning (every time the application is started):

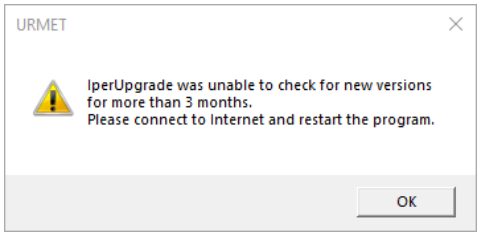


Figure 8: failure to check for updates for more than 3 months

By pressing the "*OK*" button, the application starts anyway.

6 HOW TO UPDATE AN IPERCOM SYSTEM

Below are briefly listed the steps to follow to update an IPerCom system, just after installing *IPerUpgrade*. For further details on each individual step, consult the relevant paragraph highlighted in the different points below.

1. Launch *IPerUpgrade* clicking 2 times with mouse on related executable file desktop shortcut. The following window is shown:

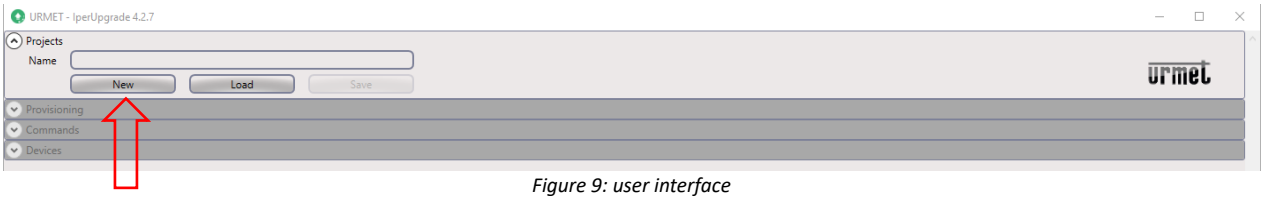


Figure 9: user interface

2. Press the "*New*" button (red arrow above) to create a new project and, in the relevant window that opens, give it a name, and save it (see ***Projects section*** for further details). The following window is then shown:

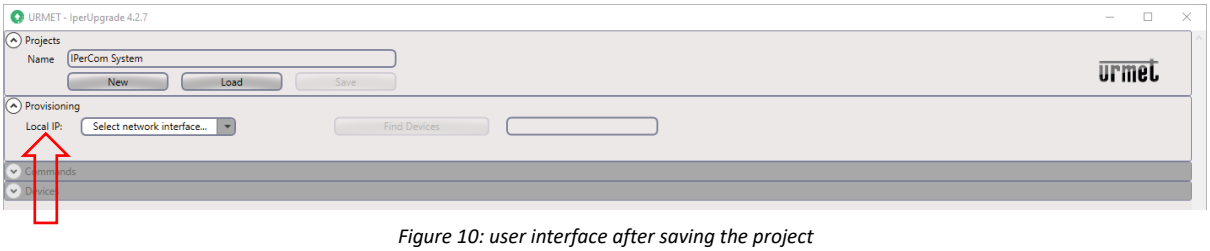


Figure 10: user interface after saving the project

3. Select the network interface through which the PC connects to the IPerCom system by means of drop-down menu "*Local IP*" highlighted with red arrow in the figure above (see ***Provisioning section*** for further details). The following window is shown:

Figure 11: user interface after choosing network interface

4. Press button “*Find Devices*” (red arrow above) to get the number of devices. The following window is shown:

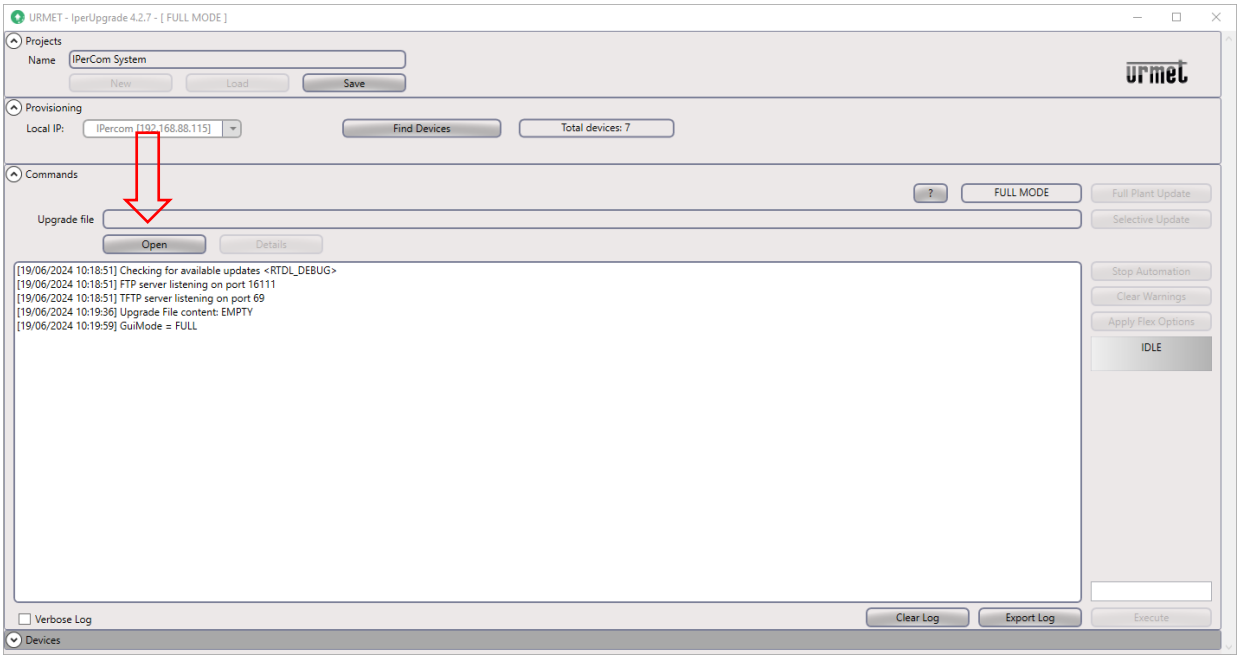


Figure 12: user interface after device discovering

5. Press the button “*Open*” (red arrow above) to import an update file (see ***Commands section*** for further details). The following window is shown (after the import):

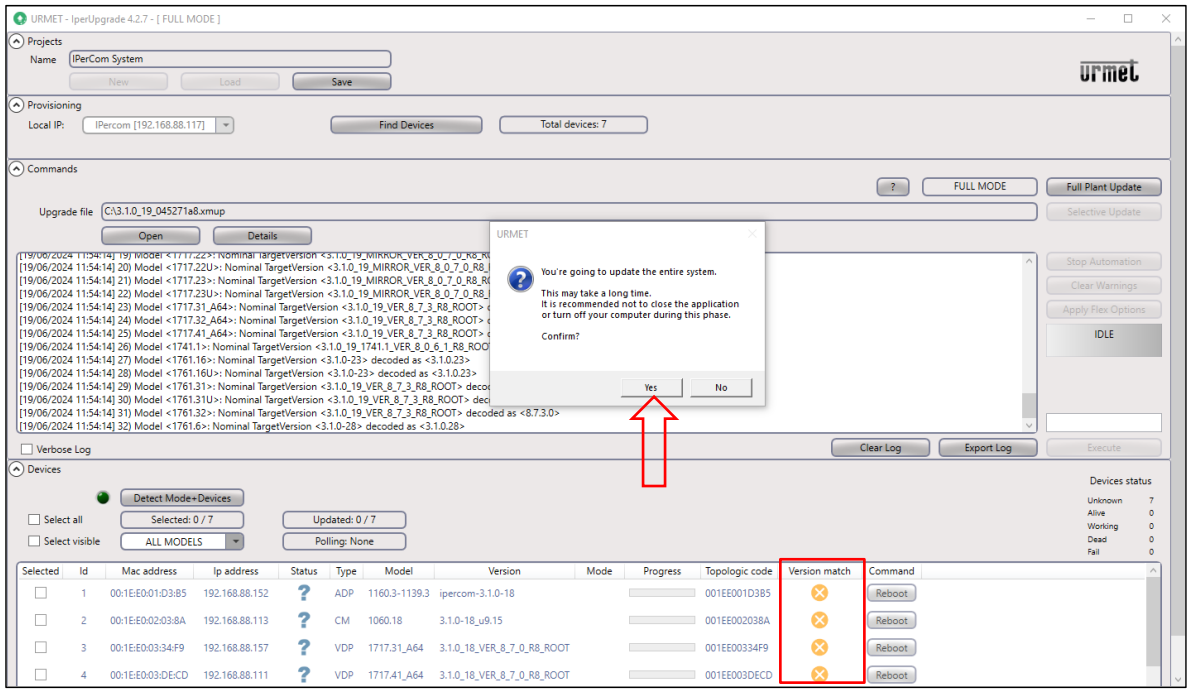


Figure 13: user interface after update file import

The "*Version Match*" column shows the icon  (red box), meaning that the devices are not aligned to the imported update file.

6. Press button "*Yes*" (red arrow) to update the plant; the correct end of the update is indicated by the icon  in the column "*Version Match*", as shown in the following window:

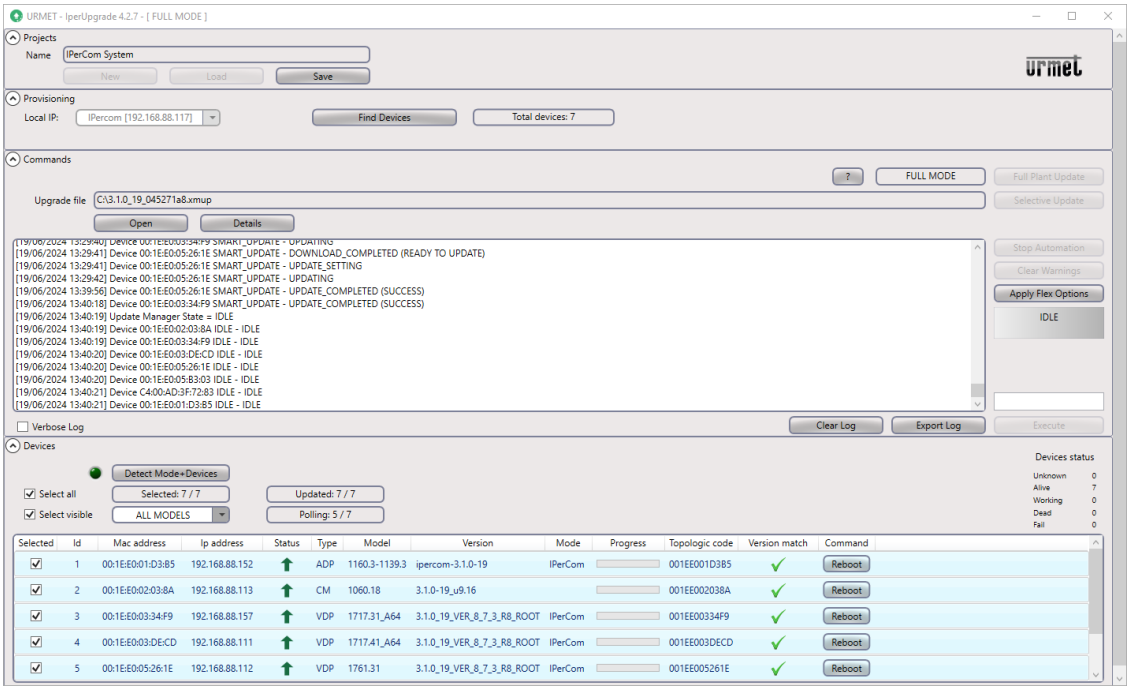


Figure 14: user interface after end of the update

The following paragraphs refer to a more advanced use of *IPerUpgrade*.

7 IPERCOM DEVICES UPGRADE MODES

The firmware upgrade of the devices of an IPerCom system can take place in 2 different ways, depending on whether there is at least 1 appropriately configured *Server* 1060/1 in the system. In detail this means that the *Server* must be:

- present in the system configuration;
- configured to upgrade other system devices.

*Refer to **the system technical manual for the installer** for the 2 points written above.*

The 2 update methods will be described in more detail below, underlining the differences.

7.1 IPERCOM SYSTEM WITHOUT SERVER 1060/1 CONFIGURED TO UPGRADE DEVICES

If the IPerCom system has no *Server* 1060/1 or no *Server* 1060/1 present in the system is configured to update devices, the upgrade of all devices is carried out exclusively by *IPerUpgrade* application.
This also applies to any new devices added to the system.
In this case the *IPerUpgrade* operating mode is called **FULL MODE**.

*Call forwarding devices can only be upgraded via IPerUpgrade in **FULL MODE**.*

7.2 SYSTEM WITH AT LEAST ONE SERVER 1060/1 CONFIGURED TO UPGRADE DEVICES

If the IPerCom system has at least a *Server* 1060/1 configured for device updating, the firmware update task is partly delegated to *IPerUpgrade* and partly to the *Server* 1060/1.
The devices that are updated by *IPerUpgrade* are shown in the following table:

System	Device	Ref.
IPerCom	Server	1060/1
	Video door phone 7'' *VOG*[7]	1761/31-31U-32-33-33U
	Video door phone 10'' MAX	1717/21-21U-22-22U-23-23U
	Video door phone 7'' Basic	1741/1-2-3
	Video door phone 7'' MAX	1717/3x-4x
	Video door phone 10''	1761/23

Table 3: devices that are upgraded by IPerUpgrade in a system with Server 1060/1 properly configured

At this stage of the update the *IPerUpgrade* operating mode is called **ACTIVE MODE**.

Once these devices have been updated, the *Server* 1060/1 takes care of updating the rest of the system; during this phase *IPerUpgrade* switches in another operating mode: **PASSIVE MODE**. In this operating mode it is possible only to view the update phases of the other devices.

The most important advantage of using this update mode is that, once the system has been updated and *IPerUpgrade* has been closed, any new devices added afterwards can be directly updated by the *Server* 1060/1.

Updating the devices via *Server* 1060/1 can be used also in the case of a first update of an IPerCom system that has just been installed but is not yet in operation. The points listed below must be followed:

1. using the *IPerUpgrade* application, upgrade the *Server* 1060/1 (disconnected from the system) to the required IPerCom version;
2. create a basic IPerCom configuration that includes only the *Server* 1060/1 by means of the IPerCom *configurator*;
3. configure the *Server* 1060/1 so that it can upgrade the other system devices (by means of the IPerCom *configurator*);
4. distribute the configuration thus created to *Server* 1060/1;
5. connect the *Server* 1060/1 to the system.

In this way, the *Server* 1060/1 can upgrade the other devices in the system: any devices added later will be still upgraded by the *Server* 1060/1.

*Refer to **the system technical manual for the installer** for steps 2, 3 and 4.*

If there are several Servers 1060/1, it is necessary to upgrade them via IPerUpgrade in step 1 and configure one of them so that it upgrades the other devices. Any other Server 1060/1 added later to the system need to be upgraded via IPerUpgrade.

*If with IPerUpgrade you connect to the system while Server 1060/1 is updating some devices, IPerUpgrade starts in **PASSIVE MODE**. In **PASSIVE MODE** IPerUpgrade can only monitor the update phases of the various devices (for further details see chapter **Update of the entire system (ACTIVE MODE and PASSIVE MODE)**).*

*If after connecting a device to be updated, IPerUpgrade is opened before the 1060/1 Server has started updating the device itself, IPerUpgrade starts in **ACTIVE MODE**: in this situation the device can only be updated by IPerUpgrade.*

The upgrade mode via Server 1060/1 is available from IPerCom version 2.1.

*It is important to underline that in **ACTIVE MODE** IPerUpgrade can also update any custom video door phones among those listed in **Table 3**, something that the 1060/1 Server cannot do except in a single case. This topic will be seen in detail in paragraph **Custom Video Door Phones**.*

These 2 operating modes (**FULL MODE** and **ACTIVE/PASSIVE MODE**) will be described in detail in the following paragraphs. It is important to note that in both cases, the main purpose is to update the IPerCom system.

8 MAIN STEPS IN THE UPGRADE PROCESS OF AN IPERCOM SYSTEM

Regardless of the operating mode (**FULL MODE** or **ACTIVE/PASSIVE MODE**), the upgrade process can be divided into 6 steps:

1. create a new project,
2. select the network interface through which to connect to the system,
3. acquire the devices that need to be upgraded,
4. select and import the upgrade file,
5. start the device upgrade phase,
6. save the project.

Regarding point 2, pay attention to the fact that the IP address of the network card, through which the PC (where IPerUpgrade is running) connects to the IPerCom system, must belong to the same IPerCom subnet.

For a correct outcome of the update, verify that:

- the PC where the *IPerUpgrade* application is running is connected to the IPerCom system via LAN cable,
- the LAN cable is connected to one of the system switches and not to the router.

*It is advisable to save the project after the end of the update: in this way, during a second system update, by opening the previously saved project, you avoid having to re-select the network card and acquire the devices to be updated again (see paragraph **Saving the project** for further details).*

The firmware upgrade of the various devices in an IPerCom system is performed using a single file with .mup (Multiple Upgrade Package) extension or with .xmup extension (Extended Multiple Upgrade Package): these files contain the single upgrade files for every device.

Xmup files are supported by IPerUpgrade version 4.2.

*Devices reported in **Table 2** (in general call forwarding devices) are upgraded through a file with .zip extension (different zip depending on the type of call forwarding device to be upgraded).*

A file with .mup or .xmup extension allows simultaneous upgrade of devices in an IPerCom system; .zip files, on the other hand, can only simultaneously upgrade call forwarding devices of the same type.

The operation of the user interface of the *IPerUpgrade* application in **FULL MODE** will now be described (how to create a project, acquire the list of devices, update them, and save the project). Then the differences compared to the **ACTIVE MODE** and **PASSIVE MODE** will be listed.

*There is another operating mode (DISABLED MODE) which occurs if two or more IPerUpgrade applications (on different PCs) connect to the same IPerCom system. This operating mode will be described in detail in paragraph **IPerUpgrade starts in DISABLED mode.***

9 USER INTERFACE: FULL MODE

After starting *IPerUpgrade*, the following screen appears:

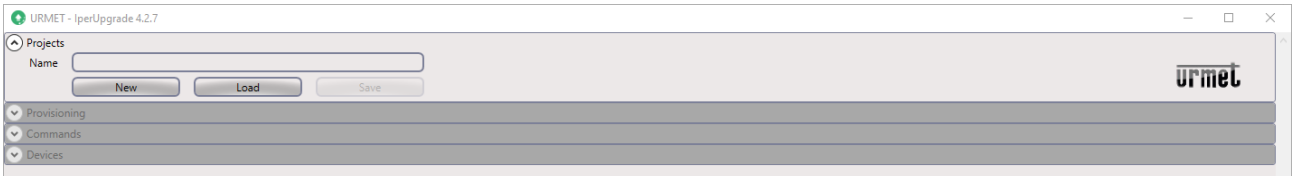


Figure 15: application start up

The user interface is divided into 4 sections, which can be opened or closed using buttons  and  . The sections are:

- "*Projects*",
- "*Provisioning*",
- "*Commands*",
- "*Devices*".

The operation of these sections is described in detail below.

9.1 PROJECTS SECTION

In the "*Projects*" section it is possible to create a new project (using the "*New*" button) or open an already created and saved project (using the "*Load*" button):

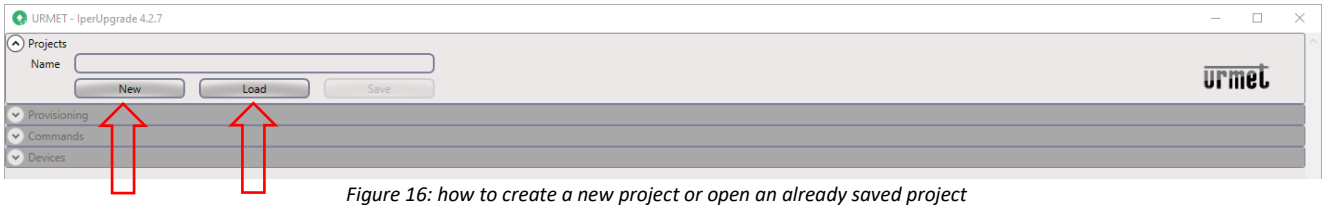


Figure 16: how to create a new project or open an already saved project

The "*New*" button opens a window through which it is possible to give a name to the project and define the path where to save it.
The "*Load*" button opens a window through which it is possible to open a project previously created and saved in a specific path.

The "*Save*" button (when enabled) allows saving the project.

Project files have .pln extension.

It is advisable to associate a project to each IPerCom system: in this way, every time a firmware upgrade of the system is required, it is sufficient to open the relevant project which will automatically load the network card (with its IP address) used to connect to the IPerCom system and the list of connected devices.

After creating a new project, the "*Provisioning*" section is enabled, as shown in the following figure:

Figure 17: "Provisioning" section enabled

Opening a project that has already been saved, data for the "Provisioning" section are uploaded automatically.

The "*Provisioning*" section is explained in the next paragraph.

9.2 PROVISIONING SECTION

In the "*Provisioning*" section it is possible to select the network interface through which the PC connects to the IPerCom system. This is possible through the "*Local IP*" drop-down menu:

Figure 18: network interface selection

To find out the IP and MAC addresses of the network interface through which you are connected to the IPerCom system, you need to click on the item "Open Network and Internet settings", which appears by pressing the right mouse button the icon  *at the bottom of right on your PC monitor. A screen opens with the list of available networks. After pressing the corresponding "Properties" item, you can view the IP address and MAC address.*

After selecting the correct network interface, the "*Find Devices*" button is enabled:

Figure 19: "Find Devices" button enabled

Pressing "*Find Devices*" button, the number of devices (that can be upgraded) connected to the IPerCom system are discovered.

After the discovering of the devices *IPerUpgrade* displays the operating mode in the upper part of the application (on the left together with the software version):

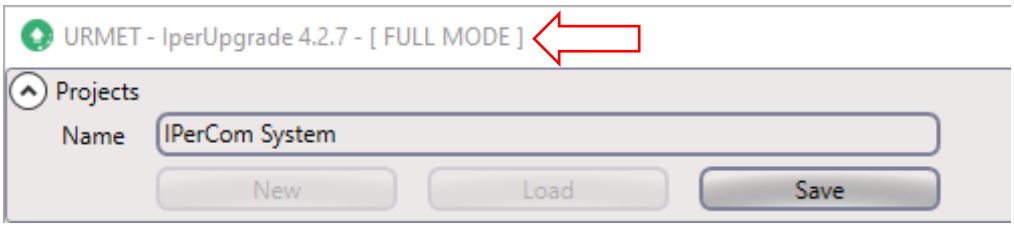


Figure 20: operating mode

*In the case of **ACTIVE MODE** operation IPerUpgrade also shows a dialogue box, which notifies the installer of the operation mode (in addition to the display in the application bar).*

If a previously saved project is opened, the operating mode is indicated as soon as the list of devices to be updated is loaded.

9.3 COMMANDS SECTION

In the "*Commands*" section you can choose the firmware upgrade file, import it into *IPerUgrade* and start the device upgrade phase. The "*Commands*" section appears as shown in the figure below (after the device discovery):

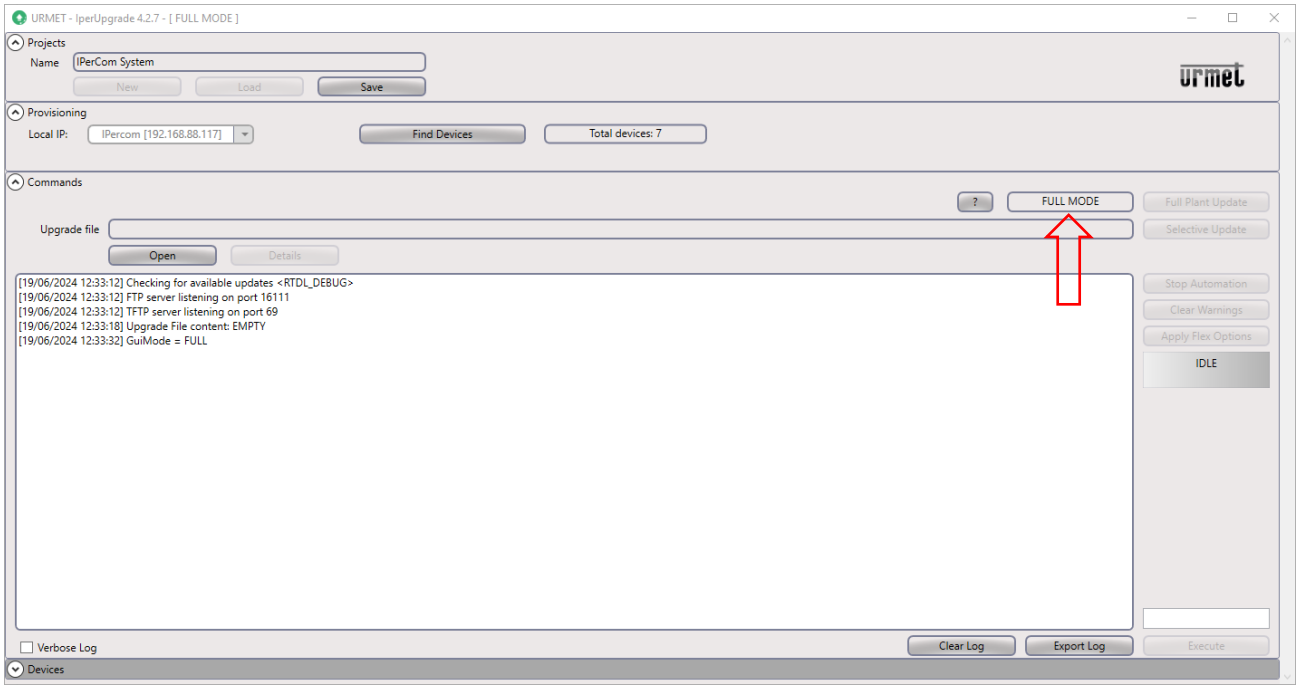


Figure 21: "Commands" section

The "*Commands*" section also shows the operating mode of *IperUpgrade* (in this case **FULL MODE**).

9.3.1 IMPORTING THE FIRMWARE UPGRADE FILE

The "*Open*" button allows selecting the firmware upgrade file from your PC or Urmet cloud. Three types of files can be selected:

- files with .mup extension for IPerCom devices (Multiple Upgrade Package);
- files with .xmup extension for IPerCom devices (Extended Multiple Upgrade Package);
- files with .zip extension for call forwarding devices.

The first second types of files allow you to simultaneously upgrade the devices of an IperCom system (among those listed in ***Table 1***).

The third type of file allows you to simultaneously upgrade call forwarding devices of the same model (among those listed in ***Table 2***).

By pressing the "*Open*" button, a window like the one shown below appears:

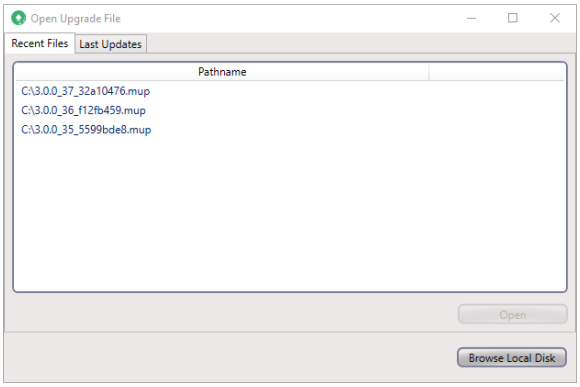


Figure 22: choose of the upgrade file

The firmware upgrade file can be selected in 3 different ways, described below.

9.3.1.1 Selecting the upgrade file from recently imported ones

The "*Recent Files*" tab shows the last 10 firmware upgrade files that have been imported, sorted from the most recent to the least recent. To import a file, it is necessary to select it and then press the "*Open*" button:

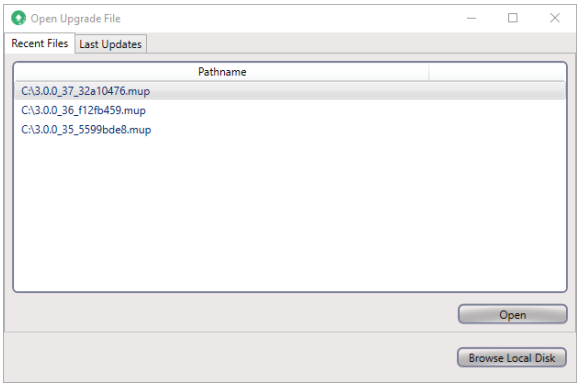


Figure 23: upgrade file selected

After pressing the "*Open*" button, the previously chosen update file is imported into *IperUpgrade*. During this phase, a window with a green progress bar, a list of the various device models and the relevant version of the upgrade file included in the mup or xmup file appears.

When the window in question disappears, this means that the import phase has completed correctly and the installer is asked whether he wants to update the system:

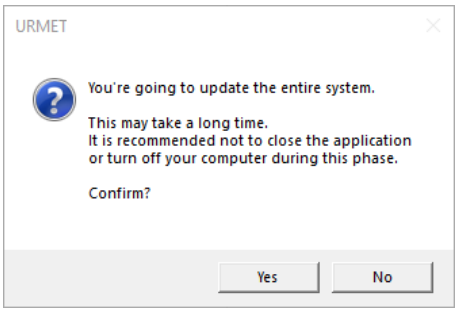


Figure 24: dialogue box for full plant update

For how to update the entire system or just part of it, see the paragraphs ***Device upgrade: FULL MODE*** or ***Device upgrade: ACTIVE MODE and PASSIVE MODE***.

*If no upgrade file has been opened and imported yet, the window in **Figure 22** is empty.*

If the upgrade file is no longer present on your PC or has been moved to another folder, after selecting it and pressing the "Open" button, the following window is displayed:

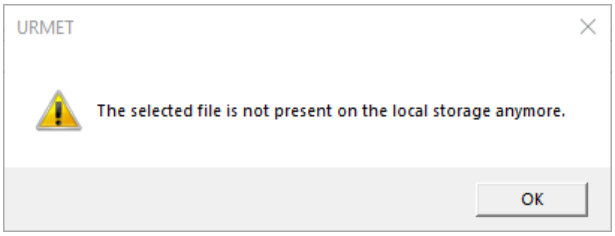


Figure 25: upgrade file no longer exists

9.3.1.2 Selecting the upgrade file from Urmet cloud

The "*Last updates*" tab contains only the latest versions of IPerCom upgrade files officially released on Urmet cloud:

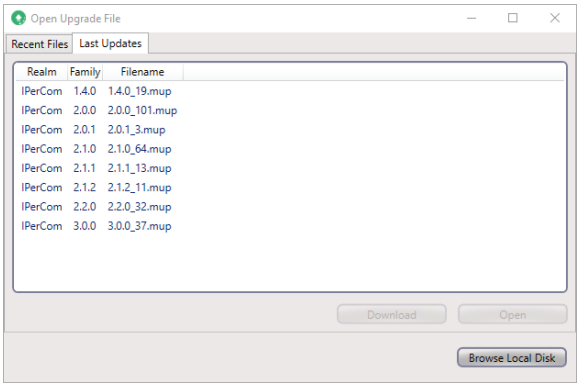


Figure 26: latest officially released upgrade files

The "*Realm*" column refers to the video door phone system for which the upgrade file was created (now the only video door phone system is IPerCom); the "*Family*" column refers to the IPerCom system version; the "*Filename*" column shows the name of the officially released upgrade file.
To import a file, it is necessary to select one and press the "*Download*" button:

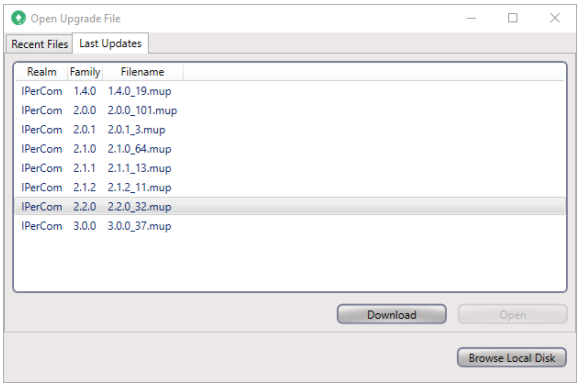


Figure 27: upgrade file selected

A window opens where you can save the upgrade file on your PC, then the download step begins:

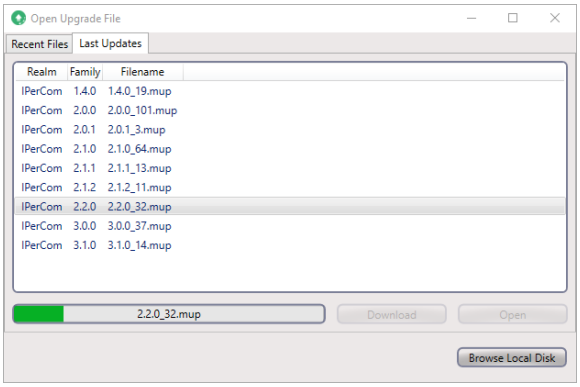


Figure 28: upgrade file downloading

At the end of the download step, use the "*Open*" button to import the upgrade file as described above; at the end of the import phase, the installer is asked whether he wants to update the system, as already shown in ***Figure 24***.

For how to update the entire system or just part of it, see the paragraphs ***Device upgrade: FULL MODE*** or ***Device upgrade: ACTIVE MODE and PASSIVE MODE***.

To download the officially released IPerCom upgrade files from the Urmet cloud, the PC must have an Internet connection.

For version 3.1.0 of IPerCom there will be two update files: the installer will be able to choose whether to download the update file with the YnO application for the MAX and VOG[7] video door phones or the one with the YnO UP application for the same video door phones. The YnO application is compatible with Yokis V5 devices while the YnO UP application is compatible with Yokis V6 devices.

9.3.1.3 Selecting the upgrade file from your PC

Press the "*Browse Local Disk*" button to select the upgrade file from your PC. Once selected, the import step begins and ends as described above.

For how to update the entire system or just part of it, see the paragraphs ***Device upgrade: FULL MODE*** or ***Device upgrade: ACTIVE MODE and PASSIVE MODE***.

9.3.2 DEVICE UPGRADE: FULL MODE

After the import of the update file into *IPerUpgrade* is finished, a dialogue box appears asking the user whether he wants to update the entire system or not:

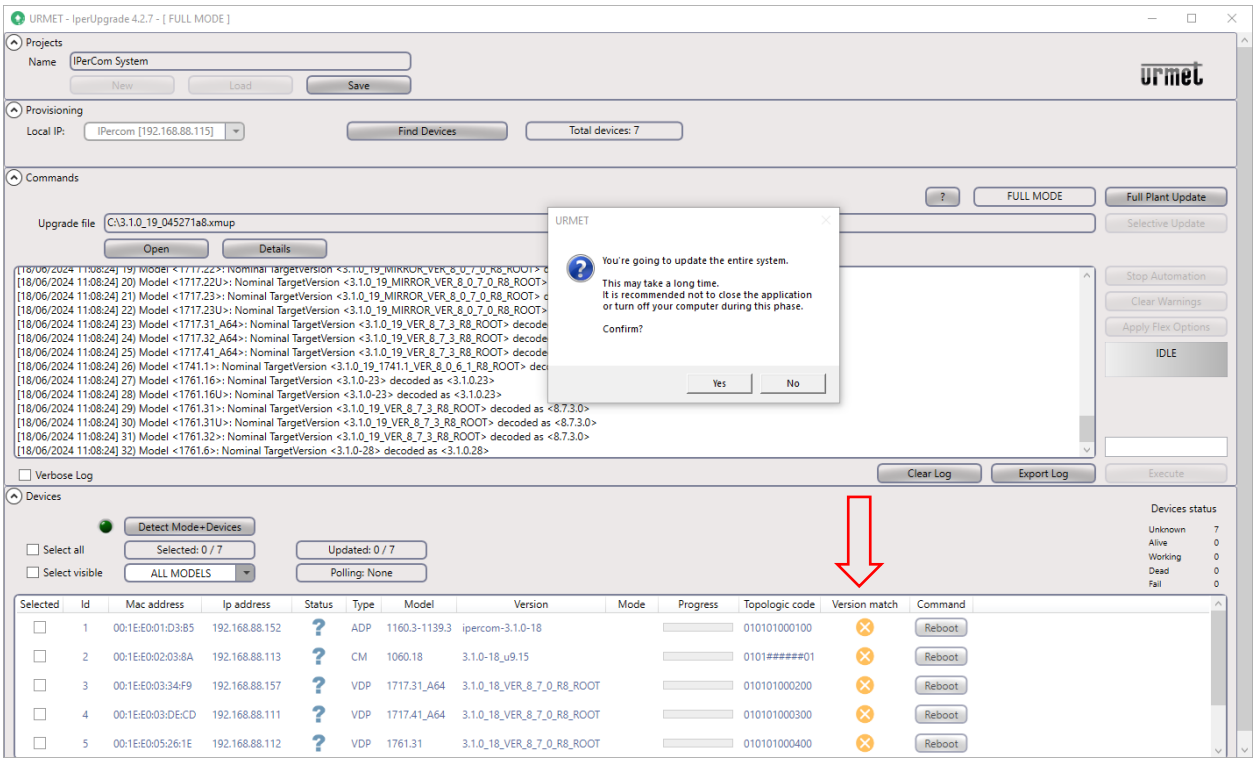


Figure 29: end of the import phase

<u>If it is necessary to update the entire system</u>, press the "*Yes*" button, if instead it is necessary to update only part of the system's devices, press "*No*" button. The 2 update modes will be seen in detail in the next paragraphs and refer to the operating mode **<u>FULL MODE</u>**<u>, that is the upgrade of all devices will be made by the application *IPerUpgrade*</u>.

In the image above you can also see that the symbol  appears in the "*Version Match*" column, meaning that the firmware version of all the devices in the system does not match that of the update file imported from *IPerUpgrade* (red arrow).

If an update file is imported into IPerUpgrade and if the system has already been updated to the same imported update file, the following message is shown:

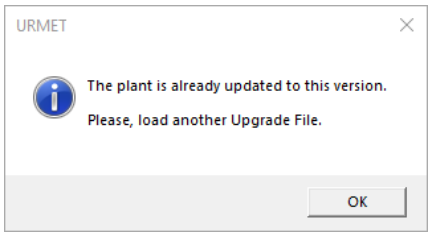


Figure 30: system already updated

The symbol ☑ appears in the "Version Match" column and there is no possibility to update the system.

9.3.2.1 Update of the entire system (FULL MODE)

To update the entire system in **FULL MODE**, after importing the upgrade file in *IPerUpgrade*, press the "*Yes*" button (red arrow) in the figure below:

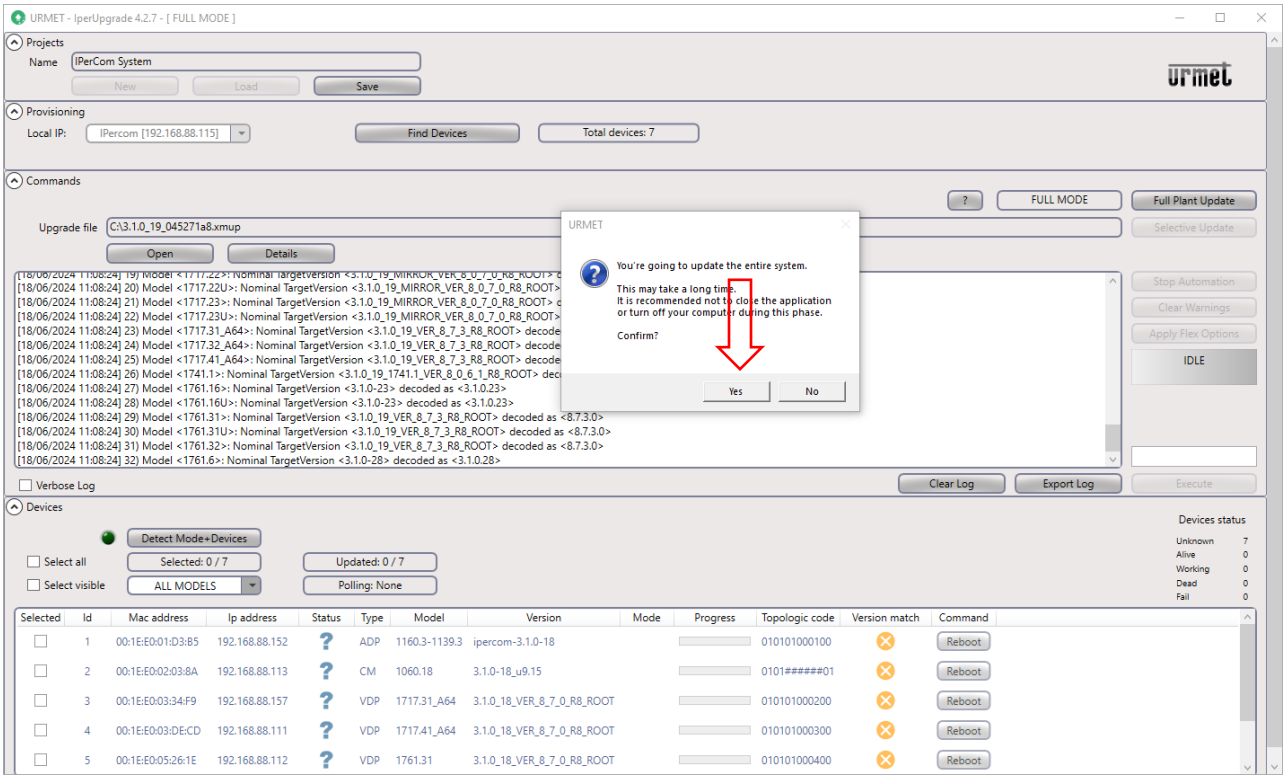


Figure 31: upgrade of the whole system

*The same result can be obtained by pressing the "No" button and then pressing the "Full Plant Update" button. This way of proceeding can be useful for carrying out checks on the devices found by IPerUpgrade and their firmware version before proceeding with the update (for further details see **Devices section**).*

In both cases even if devices are not selected (all or in part), they are automatically selected when the update phase starts.

The upgrade process starts as shown in the figure below:

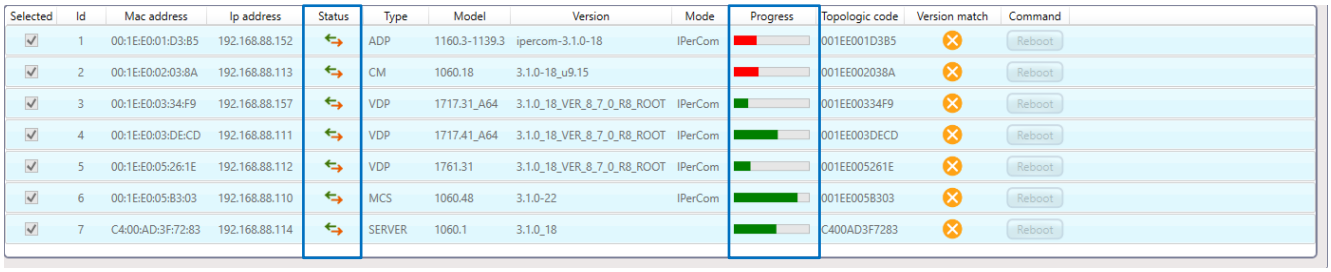


Figure 32: upload and upgrade phases

Two different phases are requested for updating the devices:

- upload phase, that is the single firmware upgrade file is uploaded to all the selected devices that need to be upgraded (green progress bar in the "*Progress*" column);
- upgrade phase, that is the devices are upgraded to the new version (red progress bar in the "*Progress*" column).

In both cases status of devices show icon  in "*Status*" column, that is firmware upgrade in progress.

"*Status*" and "*Progress*" columns are in blue boxes in ***Figure 32***.

When the progress bar is red, the devices are out of service.

During the whole upgrade phase do not turn off your PC or close IPerUpgrade application, as this may affect the correct upgrade of the devices. As a result, we recommend using a PC powered by the 230Vac mains.

During the phase of upload and upgrade the "*Commands*" section appears as shown below:

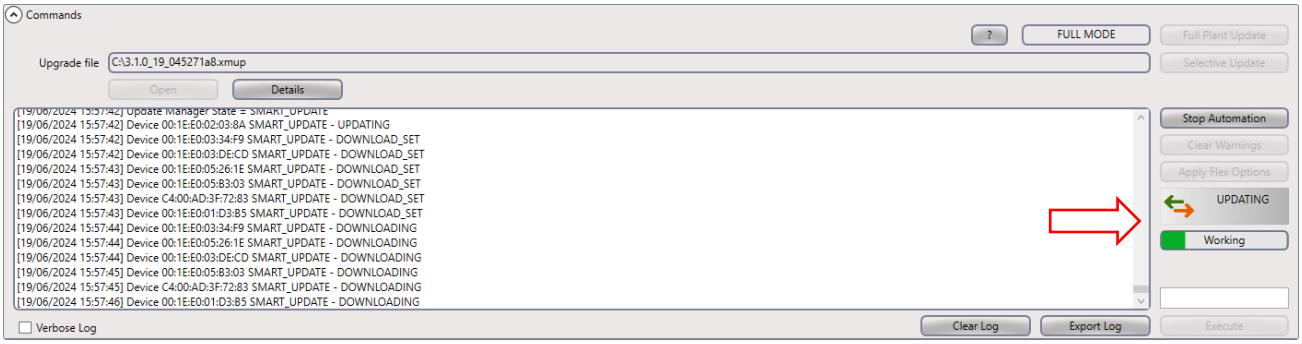


Figure 33: "Commands" section during the upload and upgrade phase

The update phase is highlighted by a green progress bar and an appropriate icon (see red arrow in the figure above).

The "*Details*" button shows a window with the list of the various device models and the relevant version of the upgrade file included in the mup or xmup file:

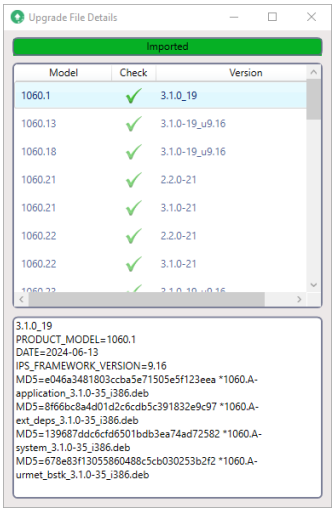


Figure 34: update file imported successfully

If a firmware upgrade file for call forwarding device is imported, a single device model is displayed in the window above.

The "*?*" button allows accessing a short online help of the application.

During the update phase, there is a default automatic mechanism for restoring any errors and repeating the update cycle (for maximum 5 times) if one or more devices fail to update. The "*Stop Automation*" button allows you to block this mechanism by pressing the "*Yes*" button in the relevant dialogue box:

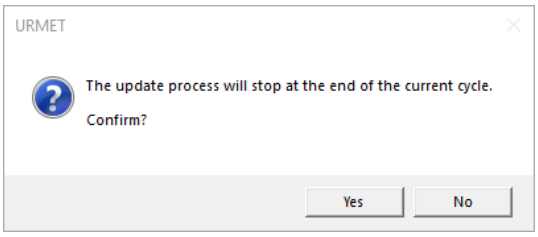


Figure 35: request to stop the update process at the current cycle

In this case any failed update messages on one or more devices must be manually deleted and a following update cycle must be started manually. If the automatic mechanism is not removed, the above is performed automatically a maximum of 5 times. For further details see ***IPerUpgrade fails to upgrade all devices***.

The success of the update procedure is indicated by a green tick for each system device in the "*Version Match*" column (green box):

Selected	Id	Mac address	Ip address	Status	Type	Model	Version	Mode	Progress	Topologic code	Version match	Command
☑	1	00:1E:E0:01:D3:B5	192.168.88.152	↑	ADP	1160.3-1139.3	ipercom-3.1.0-19	IPerCom		001EE001D3B5	✓	Reboot
☑	2	00:1E:E0:02:03:8A	192.168.88.113	↑	CM	1060.18	3.1.0-19_u9.16			001EE002038A	✓	Reboot
☑	3	00:1E:E0:03:34:F9	192.168.88.157	↑	VDP	1717.31_A64	3.1.0_19_VER_8_7_3_R8_ROOT	IPerCom		001EE00334F9	✓	Reboot
☑	4	00:1E:E0:03:DE:CD	192.168.88.111	↑	VDP	1717.41_A64	3.1.0_19_VER_8_7_3_R8_ROOT	IPerCom		001EE003DECD	✓	Reboot
☑	5	00:1E:E0:05:26:1E	192.168.88.112	↑	VDP	1761.31	3.1.0_19_VER_8_7_3_R8_ROOT	IPerCom		001EE005261E	✓	Reboot
☑	6	00:1E:E0:05:B3:03	192.168.88.110	↑	MCS	1060.48	3.1.0-23	IPerCom		001EE005B303	✓	Reboot
☑	7	C4:00:AD:3F:72:83	192.168.88.114	↑	SERVER	1060.1	3.1.0_19			C400AD3F7283	✓	Reboot

Figure 36: devices upgraded

In the "*Version*" column for each device the corresponding firmware version present in the mup or xmup file imported in *IPerUpgrade* is shown.

*At the end of the upgrade procedure, it is possible to check on the system video door phones that the firmware release corresponds to the one installed. For further details, see the user's manuals of the single video door phones on website **www.urmet.com**.*

9.3.2.2 Selective update (FULL MODE)

The "*Selective Update*" button allows you to update only the devices selected in the "*Devices*" section, therefore it is useful when it is not necessary to update the entire system but for some need you want to update only one or more devices.
In **FULL MODE** this function is useful for example if some devices with different firmware versions are added to an already updated and functioning system. In this case, opening a project already saved and associated with the system to be updated, after importing the update file, the following window appears:

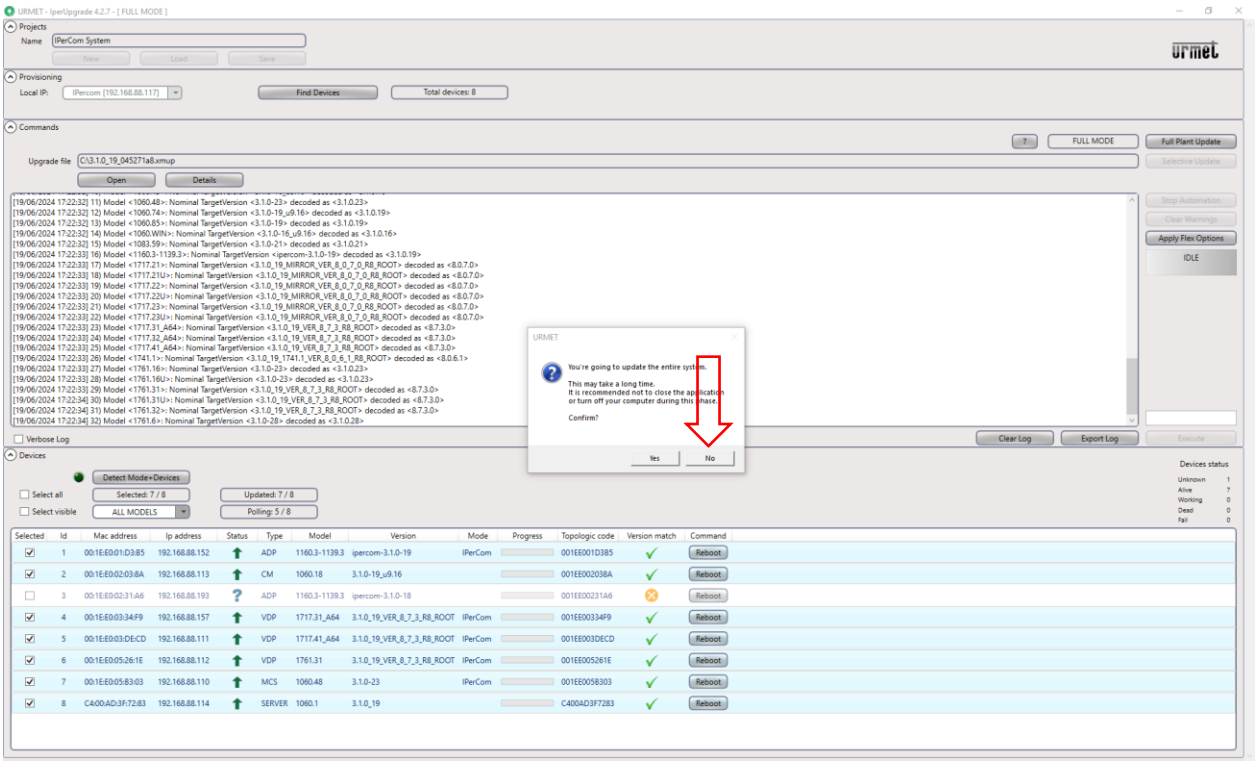


Figure 37: procedure to upgrade one or more devices and not the entire system

By pressing the “*No*” button (red arrow), you can identify the device or devices to be updated (red box):

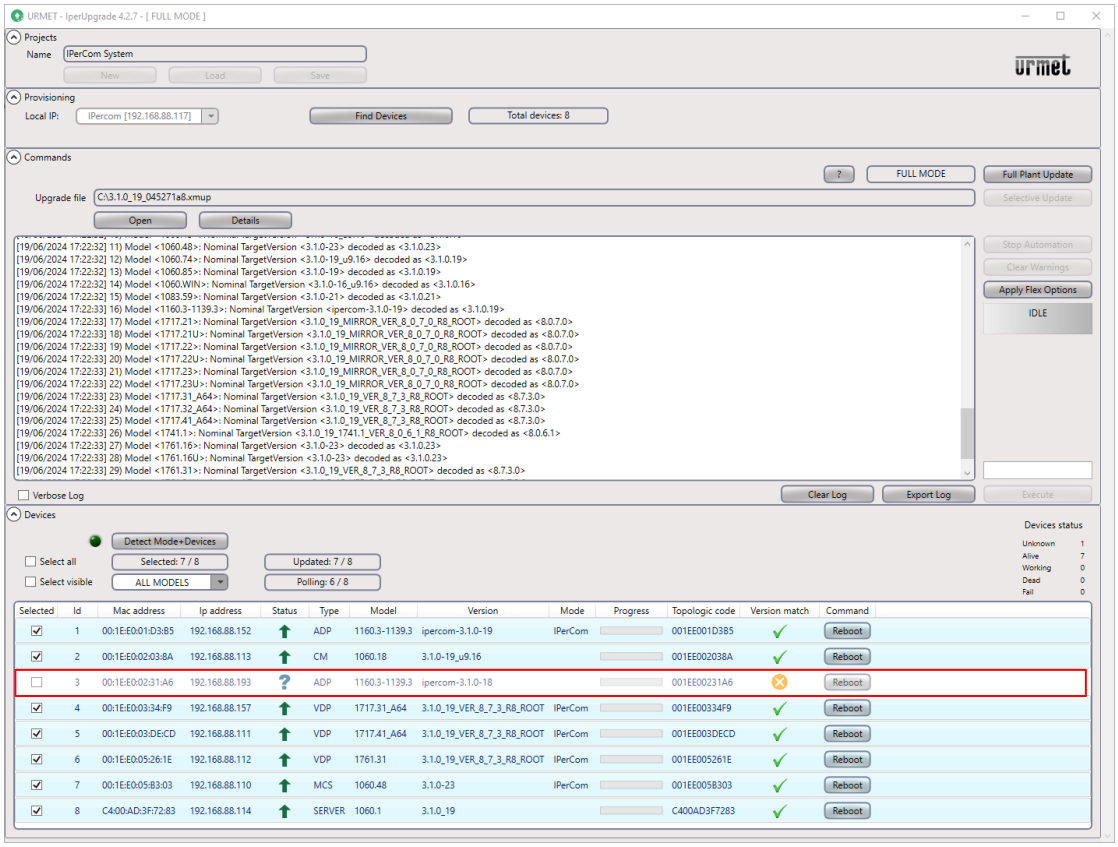


Figure 38: device added to be updated

After selecting the device to update only, press the button “*Selective Update*”:

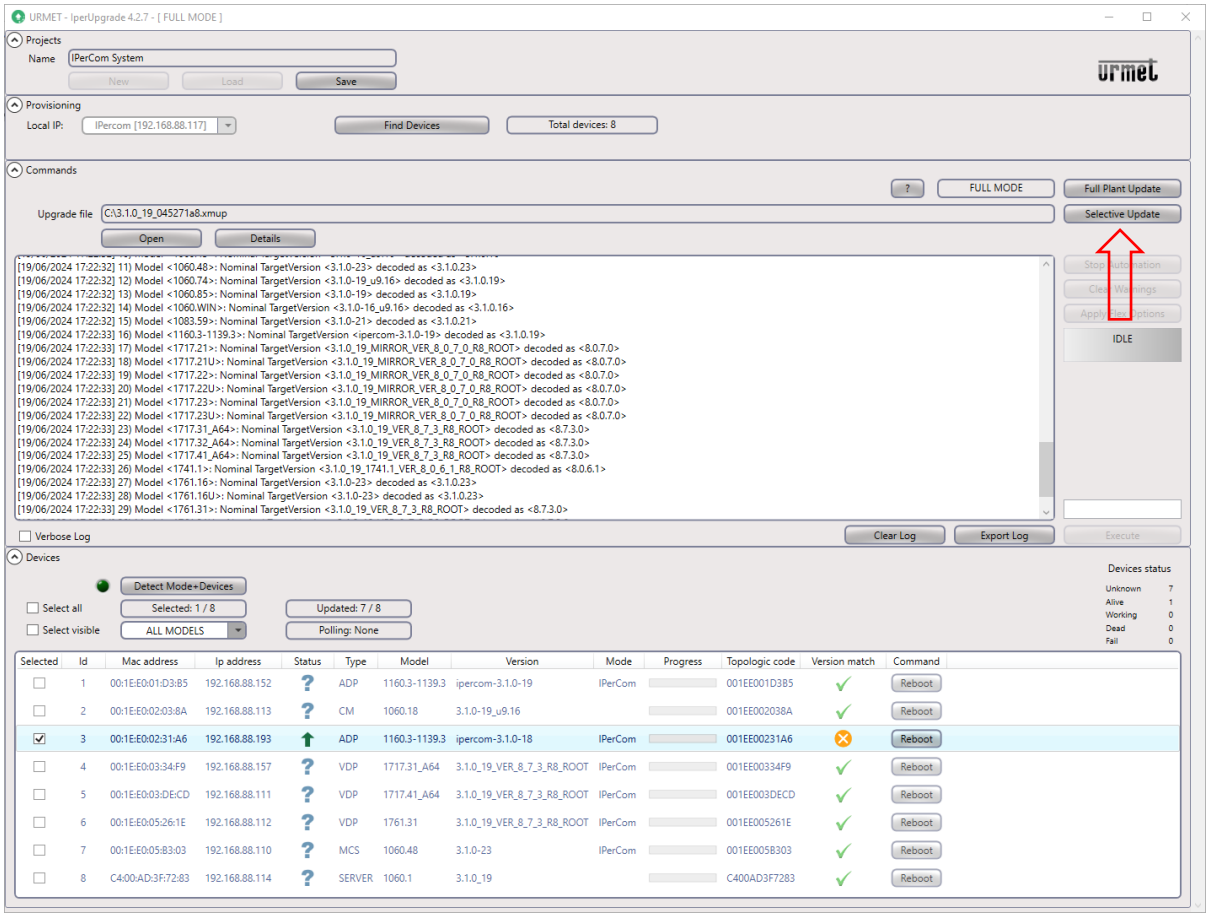


Figure 39: device to be updated selected

Pressing this button starts the update of only the selected devices, after confirming the operation in the relevant dialogue box:

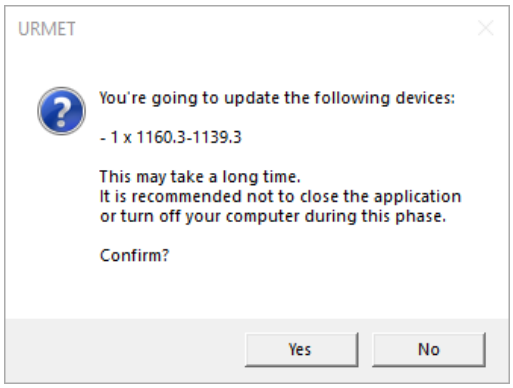


Figure 40: dialogue box of selective update

The update mode is like that seen for updating the entire system (for further details see ***Update of the entire system (FULL MODE)***).

*To quickly identify the devices to be updated (in the case of large systems) simply invert the selection highlighted in **Figure 38** with the "Invert selection" item or select all the devices ("Select all" checkbox) and exclude those already updated ("Exclude updated ones" item). For all details about these menus see **Device selection and filtering**.*

Updating devices with different firmware versions added to an already updated system can also be done simply by pressing the "Full Plant Update" button: in this case only the devices whose firmware version is not aligned with the update file imported into IPerUpgrade will be updated. Similarly, updating the entire system can be done via the "Selective Update" button by selecting all the devices.

The "Selective Update" button is activated if among the selected devices there is at least one that is not aligned with the update file imported into IPerUpgrade.

9.3.3 DEVICE UPGRADE: ACTIVE MODE AND PASSIVE MODE

IPerUpgrade starts in **ACTIVE MODE** if the two conditions reported below are respected:

- in the system to be upgraded there is at least one *Server* 1060/1 configured to upgrade other system devices;
- none of the *Servers* 1060/1 are upgrading other devices.

*The **ACTIVE MODE** can also be detected while IPerUpgrade is running using the "Detect Mode + Devices" button.*

What was reported for the "*Projects*", "*Provisioning*", "*Devices*" and "*Commands*" sections remains almost similar to what was written previously for the **FULL MODE**.

The main differences are listed below.

1) After the discovery of the devices, *IPerUpgrade* shows a dialog window through which the **ACTIVE MODE** is notified:

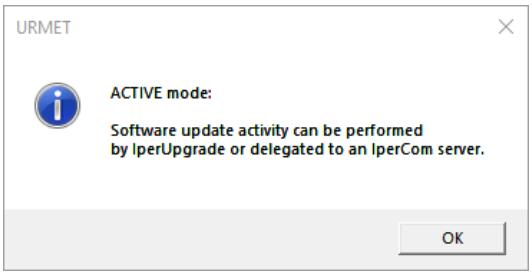


Figure 41: ACTIVE MODE notification

2) The upper part of the application (on the left together with the version application) shows the label **ACTIVE MODE** instead of **FULL MODE** (after the device discovery):

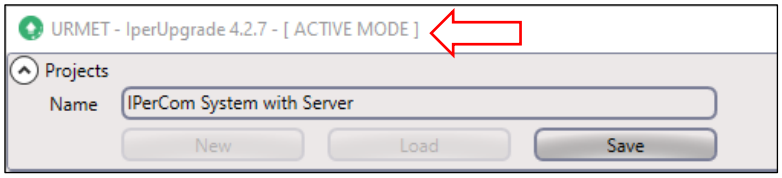


Figure 42: ACTIVE MODE displayed in the upper part of application

3) In the section "*Commands*" the label **ACTIVE MODE** instead of **FULL MODE** appears:

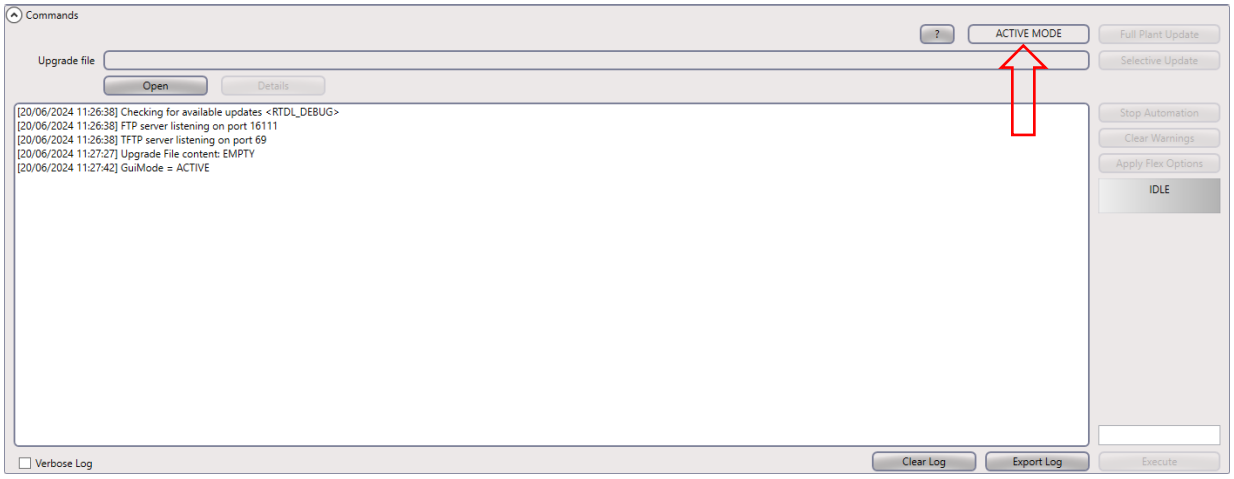


Figure 43: ACTIVE MODE label in the "Commands" section

4) In **ACTIVE MODE** if you want to update the entire system, IPerUpgrade takes care of updating only the devices listed below:

System	Device	Ref.
IPerCom	Server	1060/1
	Video door phone 7'' *VOG*[7]	1761/31-31U-32-33-33U
	Video door phone 10'' MAX	1717/21-21U-22-22U-23-23U
	Video door phone 7'' Basic	1741/1-2-3
	Video door phone 7'' MAX	1717/3x-4x
	Video door phone 10''	1761/23

Table 4: devices that can be upgraded by IPerUpgrade in ACTIVE MODE

Once the devices shown in ***Table 4*** have been updated, the *Server* 1060/1 will take care of updating the rest of the system; during this phase *IPerUpgrade* switches in **PASSIVE MODE**. In this operating mode it is only possible to view the update phases of the other devices. The transition between **ACTIVE MODE** and **PASSIVE MODE** occurs automatically: this is valid if you update the entire system via the "*Full Plant Update*" button or by pressing the "*Yes*" button in the dialogue box that appears after importing the update file (mup or xmup) into *IPerUpgrade*.

The 2 update methods (already seen for **FULL MODE**) will now be described, that is updating the entire system or making a selective update.

9.3.3.1 Update of the entire system (ACTIVE MODE and PASSIVE MODE)

To update the entire system in **ACTIVE MODE**, after importing the upgrade file in *IPerUpgrade*, press the "*Yes*" button (red arrow) in the figure below:

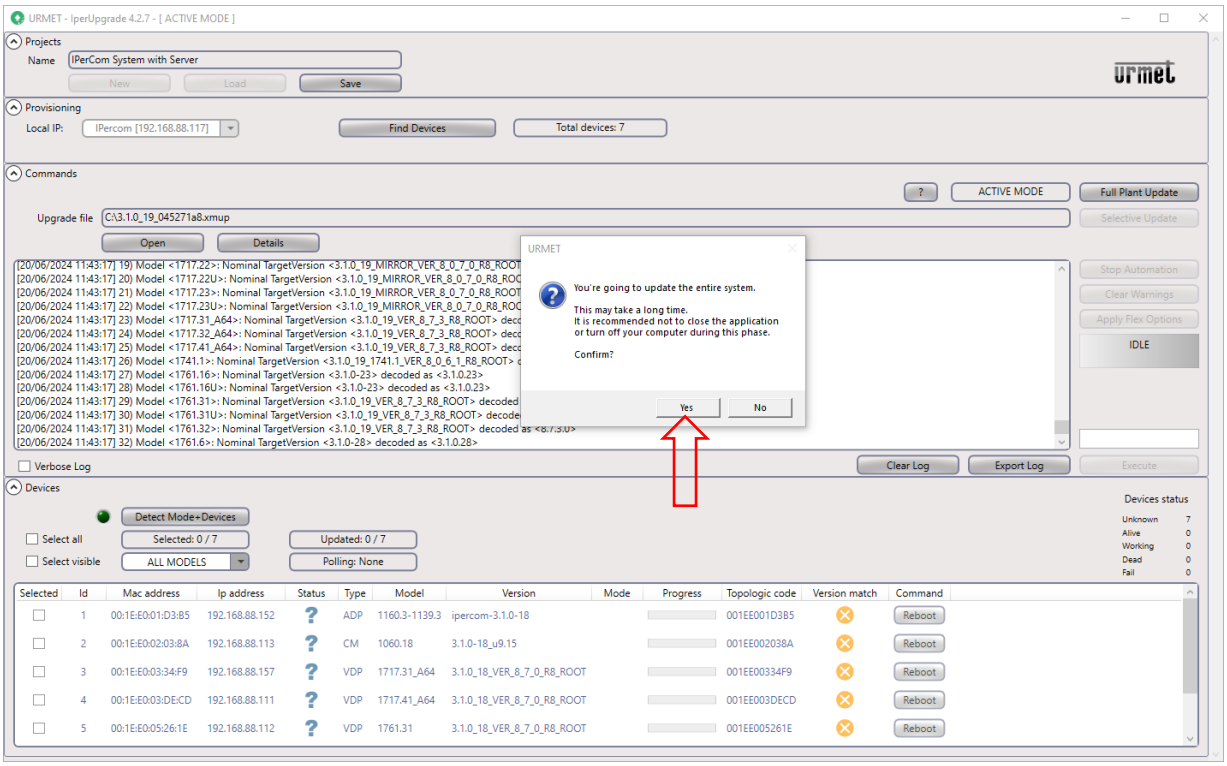


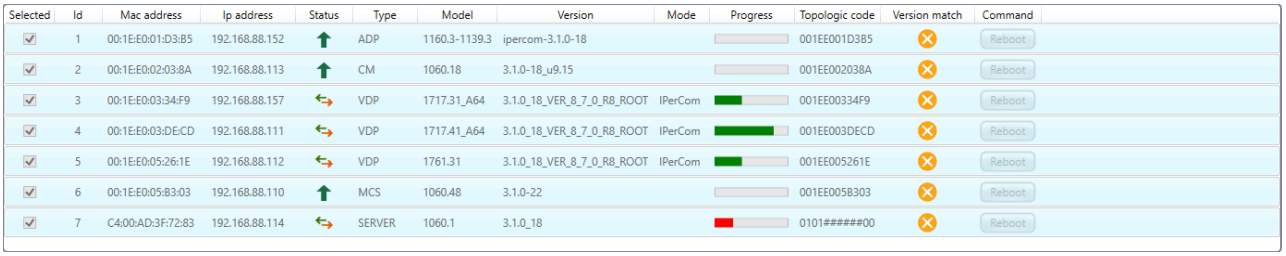
Figure 44: upgrade of the whole system in ACTIVE MODE

The same result can be obtained by pressing the "No" button and then pressing the "Full Plant Update" button. This way of proceeding can be useful for carrying out checks on the devices found by IPerUpgrade and their firmware version before proceeding with the update.

In both cases even if devices are not selected (all or in part), they are automatically selected when the update phase starts.

If an update file is imported into IPerUpgrade and if the system has already been updated to the same imported update file, the same message reported in Figure 30 is shown.

The upgrade process starts with *Server* 1060/1 and video door phones as shown in the figure below and as was reported in point 4 of the previous paragraph:



Selected	Id	Mac address	Ip address	Status	Type	Model	Version	Mode	Progress	Topologic code	Version match	Command
☑	1	00:1E:E0:01:D3:B5	192.168.88.152	↑	ADP	1160.3-1139.3	ipercom-3.1.0-18			001EE001D3B5	⊗	Reboot
☑	2	00:1E:E0:02:03:8A	192.168.88.113	↑	CM	1060.18	3.1.0-18_u9.15			001EE002038A	⊗	Reboot
☑	3	00:1E:E0:03:34:F9	192.168.88.157	⇆	VDP	1717.31_A64	3.1.0_18_VER_8_7_0_R8_ROOT	IPerCom		001EE00334F9	⊗	Reboot
☑	4	00:1E:E0:03:DE:CD	192.168.88.111	⇆	VDP	1717.41_A64	3.1.0_18_VER_8_7_0_R8_ROOT	IPerCom		001EE003DECD	⊗	Reboot
☑	5	00:1E:E0:05:26:1E	192.168.88.112	⇆	VDP	1761.31	3.1.0_18_VER_8_7_0_R8_ROOT	IPerCom		001EE005261E	⊗	Reboot
☑	6	00:1E:E0:05:B3:03	192.168.88.110	↑	MCS	1060.48	3.1.0-22			001EE005B303	⊗	Reboot
☑	7	C4:00:AD:3F:72:83	192.168.88.114	⇆	SERVER	1060.1	3.1.0_18			0101######00	⊗	Reboot

Figure 45: upload phase and upgrade phase

The update phase of the single device involves an upload phase of the firmware update file (green progress bar in the "*Progress*" column) and an upgrade phase (red progress bar in the "*Progress*" column), as already seen before.

In both cases status of devices shows icon  in "*Status*" column, that is firmware upgrade in progress.

Once the update of the *Server* 1060/1 and the *VOG*[7], *Max* and *Basic* video door phones has been completed, *IPerUpgrade* automatically switches to **PASSIVE MODE** operation and the *Server* 1060/1 begins to update the rest of the system:

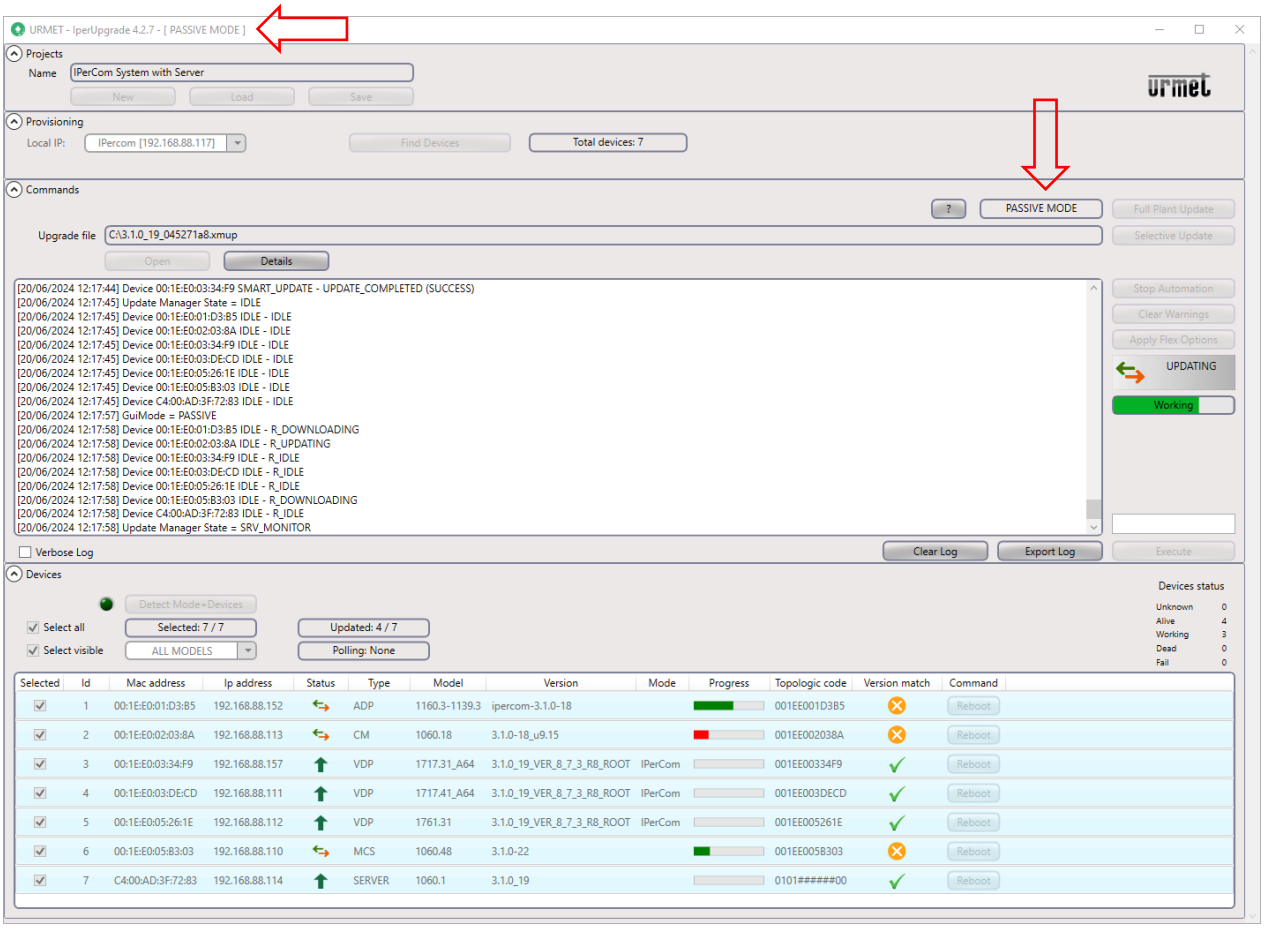


Figure 46: update of the rest of the system

In **PASSIVE MODE** *IPerUpgrade* can only monitor the update phases of the various devices.

The new operating mode is displayed on the top bar of the application and in the "*Commands*" section (red arrows).

*When the progress bar is red, the devices are out of service (both in **ACTIVE** and **PASSIVE** operation modes).*

*During the whole upgrade phase do not turn off your PC or close IPerUpgrade application (both in **ACTIVE** and **PASSIVE** operation modes), as this may affect the correct upgrade of the devices. As a result, we recommend using a PC powered by the 230Vac mains.*

During the phase of upload and upgrade in **ACTIVE** mode the "*Commands*" section appears as shown below:

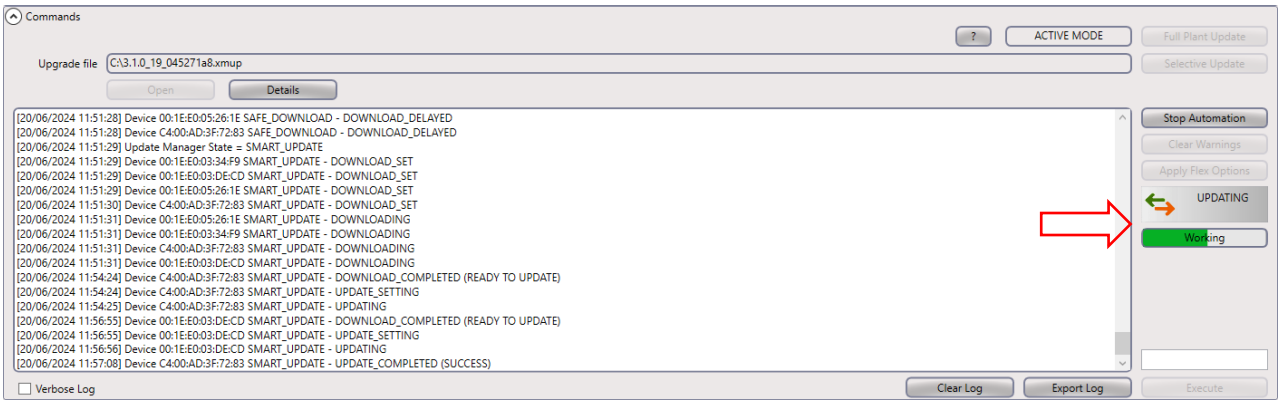


Figure 47: "Commands" section during the upload and upgrade phase

The update phase is highlighted by a green progress bar and an appropriate icon (see red arrow in the figure above).

The "*Details*" button shows the same image as when the import process of the update file into *IPerUpgrade* ends, that is a window with a list of the various device models and the relevant version of the upgrade file included in the mup or xmup file:

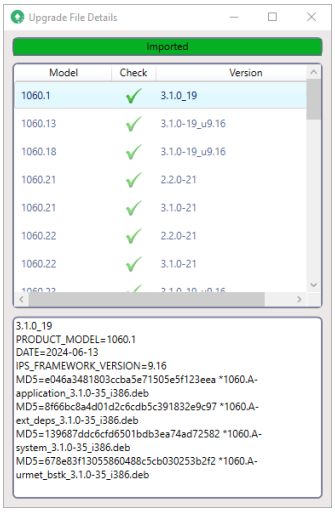


Figure 48: update file imported successfully

The "*?*" button allows accessing a short online help of the software.

During the upgrade phase of **ACTIVE MODE**, there is an automatism for the points listed below:

- transition from **ACTIVE MODE** to **PASSIVE MODE**,
- restoring any errors found during the upgrade process (**ACTIVE MODE** and **PASSIVE MODE**),
- repeating the update cycle (for maximum 5 times) if one or more devices fail to update (**ACTIVE MODE** and **PASSIVE MODE**).

The "*Stop Automation*" button allows you to block this automatism by pressing the "*Yes*" button in the relevant dialogue box:

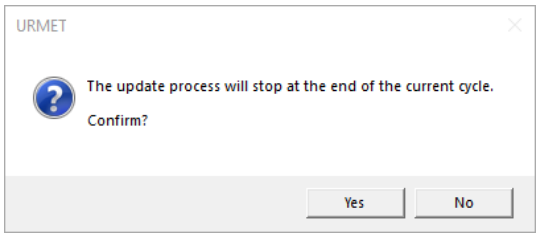


Figure 49: request to stop the update process at the current cycle

In this case the automatic transition from **ACTIVE MODE** to **PASSIVE MODE** will no longer occur and furthermore any failed update messages must be deleted manually and a following update cycle must be started manually (only for the **ACTIVE MODE**). If the automatism is not removed, the 3 points listed above are performed automatically for a maximum of 5 times. For further details see ***IPerUpgrade fails to upgrade all devices***.

*During the **PASSIVE MODE** the button "Stop Automation" is frozen.*

The success of the update procedure is indicated by a green tick for each device in the "*Version Match*" column (green box):

Selected	Id	Mac address	Ip address	Status	Type	Model	Version	Mode	Progress	Topologic code	Version match	Command
☑	1	00:1E:E0:01:D3:B5	192.168.88.152	↑	ADP	1160.3-1139.3	ipercom-3.1.0-19	IPerCom		001EE001D3B5	✓	Reboot
☑	2	00:1E:E0:02:03:8A	192.168.88.113	↑	CM	1060.18	3.1.0-19_u9.16			001EE002038A	✓	Reboot
☑	3	00:1E:E0:03:34:F9	192.168.88.157	↑	VDP	1717.31_A64	3.1.0_19_VER_8_7_3_R8_ROOT	IPerCom		001EE00334F9	✓	Reboot
☑	4	00:1E:E0:03:DE:CD	192.168.88.111	↑	VDP	1717.41_A64	3.1.0_19_VER_8_7_3_R8_ROOT	IPerCom		001EE003DECD	✓	Reboot
☑	5	00:1E:E0:05:26:1E	192.168.88.112	↑	VDP	1761.31	3.1.0_19_VER_8_7_3_R8_ROOT	IPerCom		001EE005261E	✓	Reboot
☑	6	00:1E:E0:05:B3:03	192.168.88.110	↑	MCS	1060.48	3.1.0-23	IPerCom		001EE005B303	✓	Reboot
☑	7	C4:00:AD:3F:72:83	192.168.88.114	↑	SERVER	1060.1	3.1.0_19			0101######00	✓	Reboot

Figure 50: devices upgraded

In the "*Version*" column for each device the corresponding firmware version present in the mup or xmup file imported in *IPerUpgrade* is shown.

At the end of the upgrade procedure, it is possible to check on the system video door phones that the firmware release corresponds to the one installed. For further details, see the user's manuals of the single video door phones on website www.urmet.com.

9.3.3.2 Selective update (ACTIVE MODE)

The "*Selective Update*" button allows you to update only the devices selected in the "*Devices*" section, therefore it is useful when it is not necessary to update the entire system but for some need you want to update only one or more devices. To do this, after importing the update file, the following window appears:

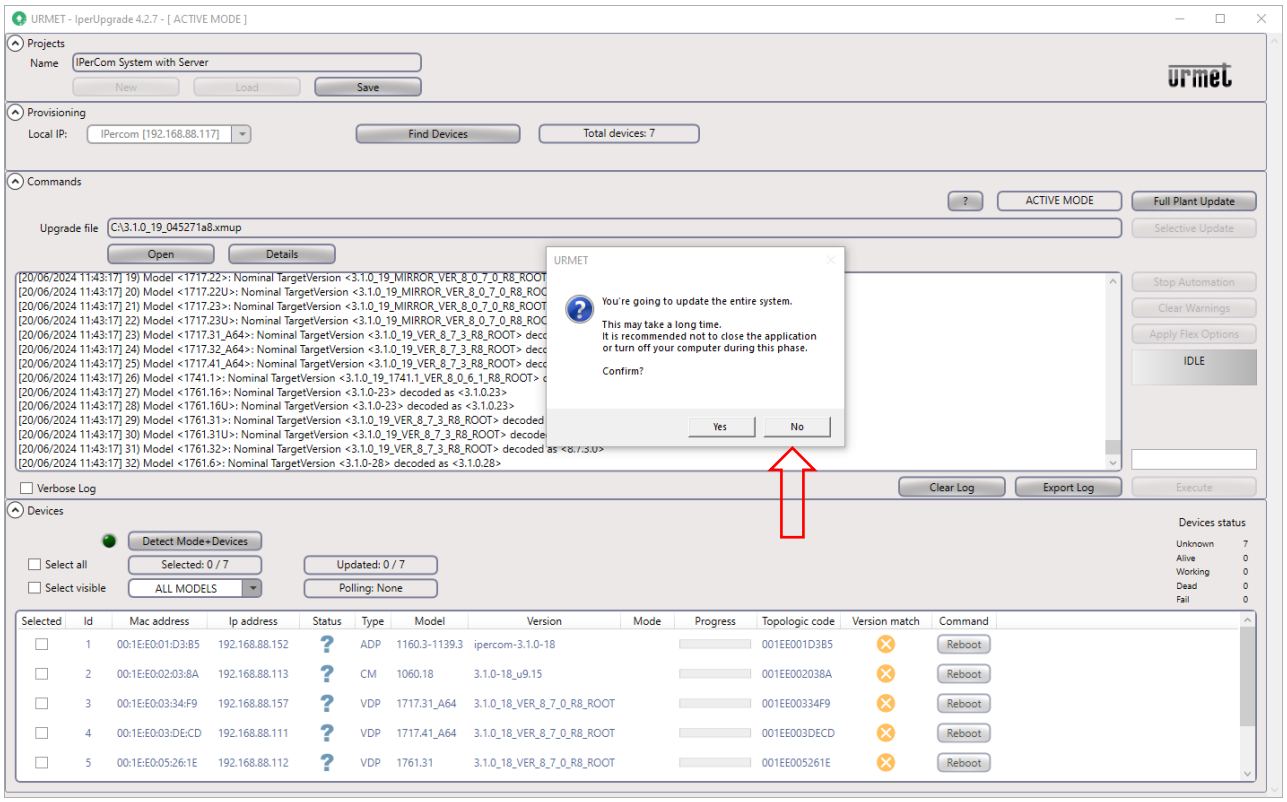


Figure 51: how to partially update the system

By pressing the "*No*" button (red arrow), you can identify the device or devices to be updated in the section "*Devices*" (red box) and press the button "*Selective Update*" (red arrow):

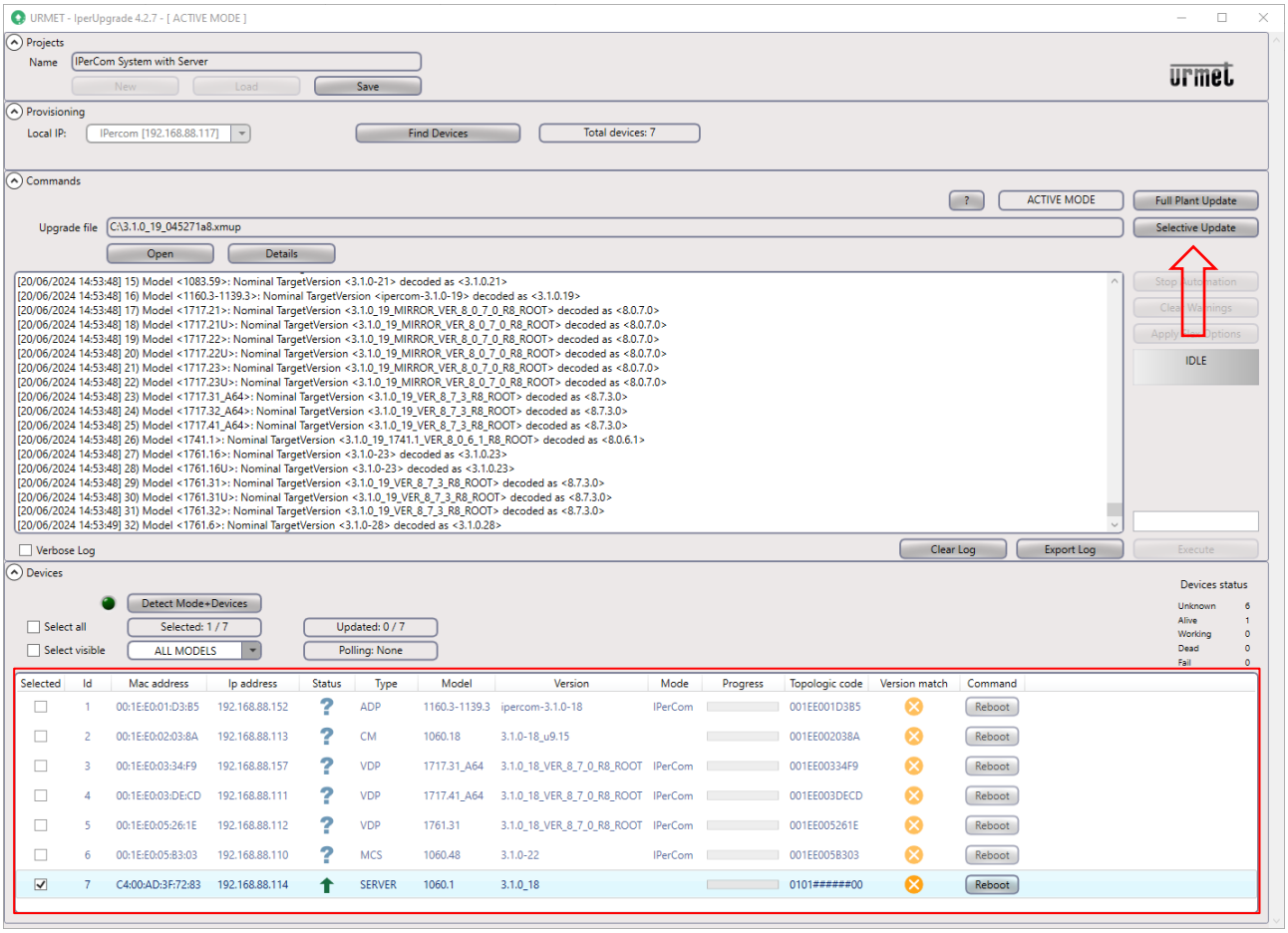


Figure 52: selective update

Pressing this button starts the update of only the selected devices, after confirming the operation in the relevant dialogue box:

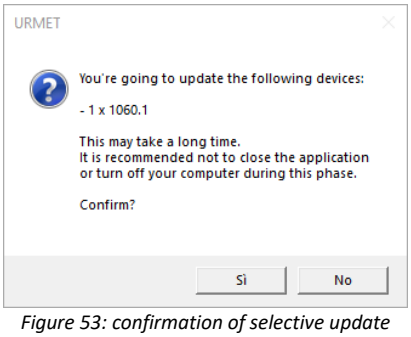


Figure 53: confirmation of selective update

The update mode is like that seen for updating the entire system in **FULL MODE**, that is the device update is performed by *IPerUpgrade* and not by *Server* 1060/1.

*If all the devices are selected and the entire system is then updated using the "Selective Update" button, the update mode is like **FULL MODE** (that is, there is no transition from **ACTIVE MODE** to **PASSIVE MODE**).*

If you select and update only the 1060/1 Server configured to update the devices, it is necessary to close the IPerUpgrade application so that the Server can update the rest of the system.

The 1060/1 Server configured to update the other devices does not update any other Servers present in the system.

*Any device added to the system will be updated by the 1060/1 Server; the only exception may occur if custom video door phones are added (see paragraph **Custom Video Door Phones**).*

9.3.4 STARTING IPERUPGRADE WHILE THE SERVER IS UPDATING ONE OR MORE DEVICES IN THE SYSTEM

If *IPerUPgrade* is started while the *Server* 1060/1 is updating one or more devices, *IPerUpgrade* starts in **PASSIVE MODE**. This is notified by the following dialog that appears after scanning the devices:

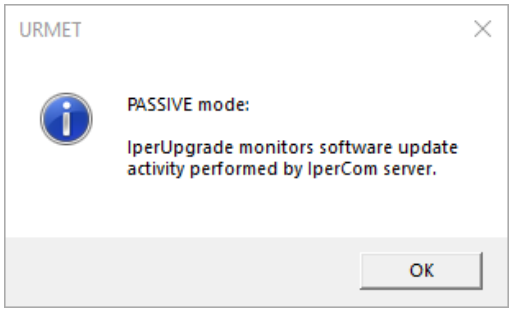


Figure 54: IPerUpgrade starts in PASSIVE MODE

9.4 DEVICES SECTION

The "*Devices*" section is accessible after loading the update file and possibly after updating the system. In more detail, after loading the update file the following dialog box appears:

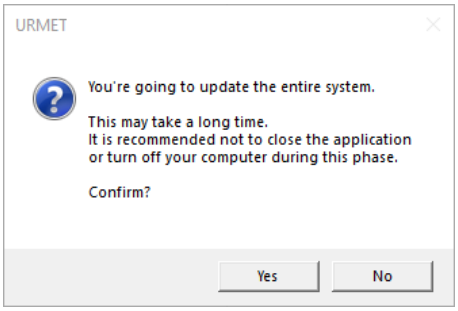


Figure 55: dialogue box for full plant update

If you press the "*Yes*" button, you must wait for the end of the entire system update process to access the "*Devices*" section; if you press the "*No*" button instead, the "*Devices*" section is immediately available. In both cases, the following window is shown:

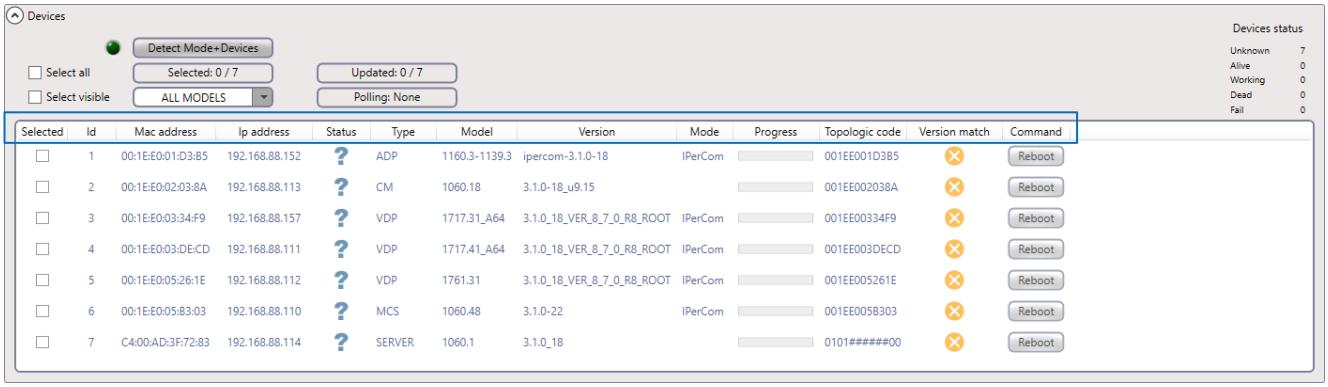


Figure 56: "Devices" section

The "*Devices*" section displays the devices in the IPerCom system to which you are connected and which can be upgraded via *IPerUpgrade*. For each device, a series of information is reported such as IP address, MAC address, model of device found (blue box). The detailed list is reported in paragraph ***Information on the devices***.

Furthermore, you can also do the following:

- select and filter the devices found in different ways;
- detect the presence of new devices connected to the system when *IPerUpgrade* is running;
- detect the operating mode of *IPerUpgrade*, when it is running.

All these operations will be illustrated in detail in the paragraph ***Device selection and filtering***.

*Any other IPerCom devices connected to the system but not present in **Table 1** are not displayed in the "Devices" section, as they cannot be upgraded via IPerUpgrade.*

9.4.1 DEVICE SELECTION AND FILTERING

Below is the operation of the checkboxes and drop-down menus present in the red box in the "*Devices*" section:

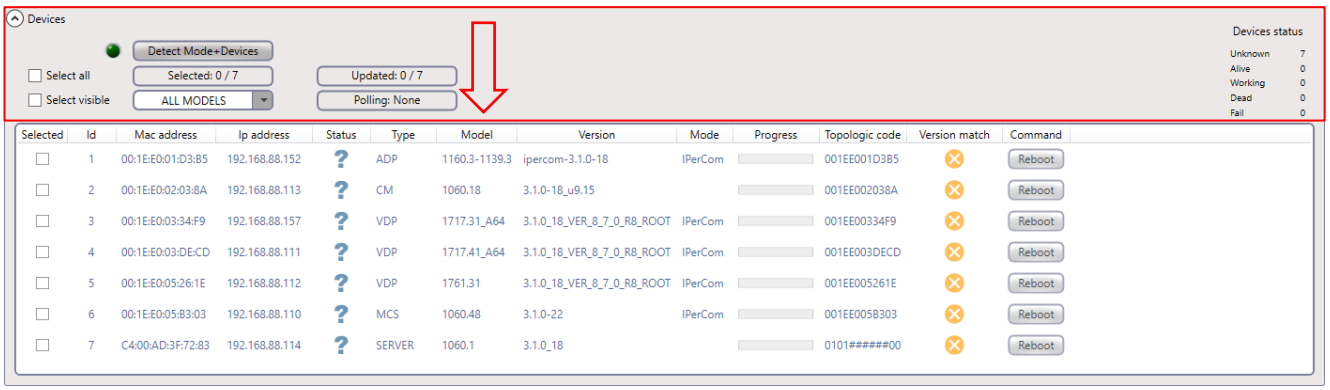


Figure 57: flags and drop-down menus in "Devices" section

Checkbox "*Select all*": if selected, this checkbox allows selecting all the devices found with the "*Find Devices*" button (even those not displayed in the list after a filtering operation performed with the "*ALL MODELS*" drop-down menu). If not selected, none of the devices found are selected.

Drop-down menu "*ALL MODELS*": this drop-down menu allows filtering the list of devices found based on a single device model (see "*Model*" column with red arrow). Only device models found with the "*Find Devices*" button are available in the drop-down menu, but not all the available models.

Checkbox "*Select visible*": if selected, this checkbox allows selecting only the devices displayed in the "*Devices*" section; for example, if the "*ALL MODELS*" drop-down menu filter is set to 1060.48, selecting the "*Select visible*" checkbox selects only devices of model 1060.48 and not the other devices found with the "*Find Devices*" button. If this box is not checked, no device displayed in the list will be selected.
This function is useful if, in the presence of many devices, you need to select only those corresponding to the model chosen before.

Field "*Selected x/y*": this field displays the number of devices selected: "*y*" is the total number of devices found, while "*x*" is the number of devices selected. If x and y have the same value, then all devices have been selected, even if those displayed in the list are fewer (because of setting the "*ALL MODELS*" drop-down menu to a specific device model).

Field "*Polling*": this field shows the value "*None*", as no device has yet been selected. As soon as you select all the devices or even one, the polling service starts.

Field "*Updated*": this field shows the number of updated devices, after starting the upgrade process.

Button "*Detect Mode + Devices*": see paragraph ***New devices connected to the system and operating modes for IPerUpgrade***.

Further sorting and filtering operations can be done by right-clicking the mouse in the white box where the devices are listed. The following drop-down menu appears (red arrow):

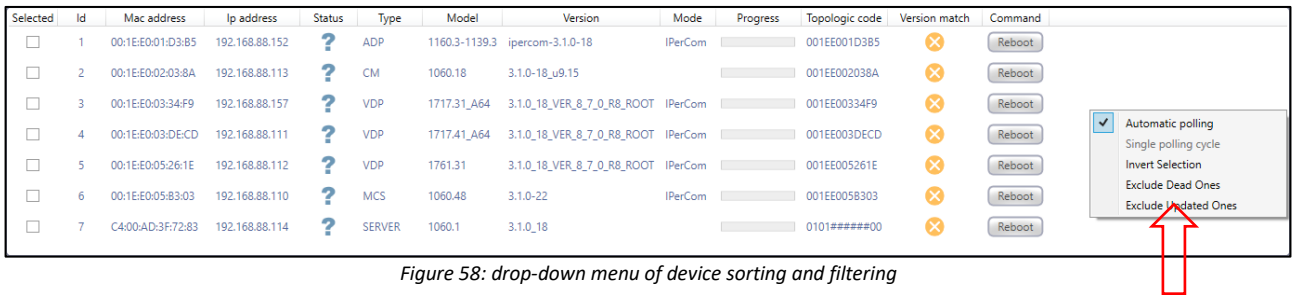


Figure 58: drop-down menu of device sorting and filtering

Menu "*Automatic polling*": if selected (default choice), polling will occur cyclically on each selected device; if deselected, the menu "*Single polling cycle*" is enabled: pressing on this menu, a polling session of all selected devices will start from the first and end on the last device. For a further polling cycle press the "*Single polling cycle*" menu again (for the result of the polling see paragraph ***Device status information***).

Menu "*Invert selection*": this menu allows inverting the current selection of the various devices (from selected to unselected and vice versa).

Menu "*Exclude dead ones*": this menu allows deselecting devices that are no longer connected to the system or, more generally, devices that cannot be reached via polling. These devices (if selected) are marked in the "*Status*" column by a red arrow (for further details, see paragraph ***Information on the devices***).

Menu "*Exclude updated ones*": this menu allows deselecting the devices whose firmware release corresponds to the one that was uploaded in the "*Commands*" section, i.e. the devices that was already updated (for further details, see paragraph ***Commands section***).

9.4.1.1 Device status information

On the right side of the "*Devices*" section there is a summary table on the operating status of the devices, as shown below:

- number of devices in "*Unknown*" status, that is devices not selected in the list,
- number of devices in "*Alive*" status, that is devices which are normally working (devices that respond to polling),
- number of devices in "*Dead*" status, that is devices which are not normally working (devices that do not respond to polling),
- number of devices in "*Fail*" status, that is devices whose upgrade process is not completed,
- number of devices in "*Working*" status, that is devices whose upgrade process is still running.

9.4.1.2 New devices connected to the system and operating modes for IPerUpgrade

The "*Detect Mode + Devices*" button allows:

- detect the presence of new devices connected to the IPerCom system,
- detect a change in the operating mode of *IPerUpgrade*, when it is running.

The 2 functions are explained in more detail below.

Presence of new devices

After importing the update file and pressing the "*No*" button in the relevant dialog box, the "*Devices*" section is enabled, as shown in the following figure:

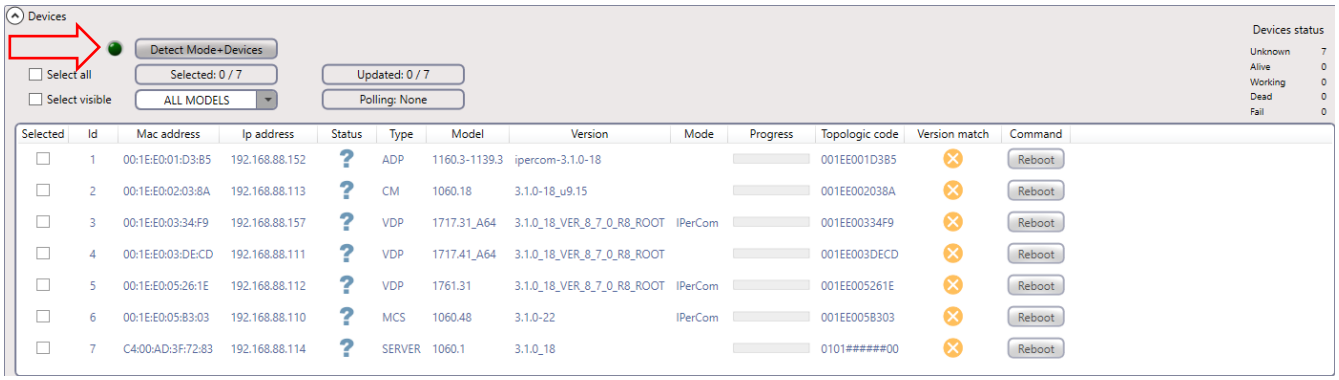


Figure 59: device discover (green circle off)

The circle to the left of the "*Detect Mode + Devices*" button is off (see red arrow in the figure above).
If new devices are connected to the system, the circle in question lights up green, as shown in the figure:

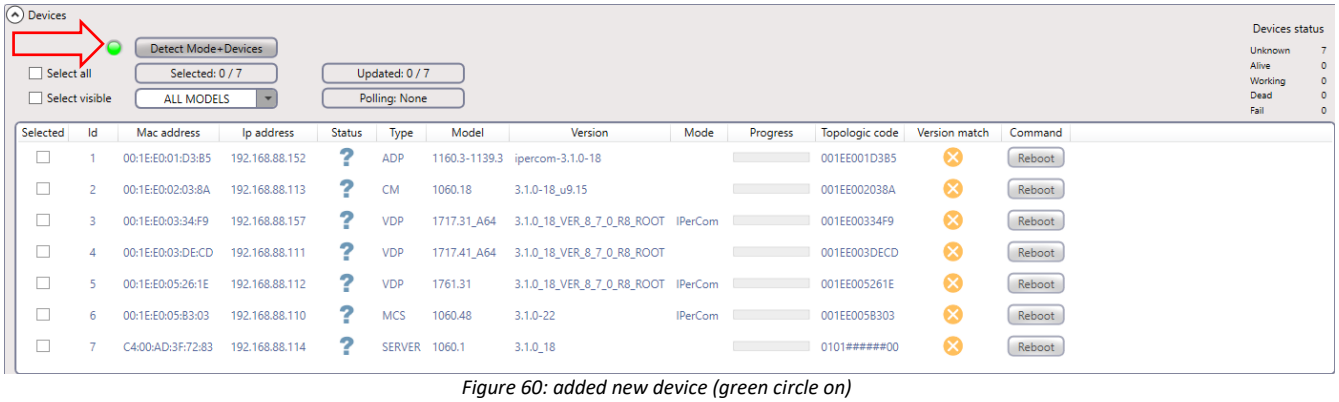


Figure 60: added new device (green circle on)

This happens if the new devices are connected to the system while *IPerUpgrade* is running.

By pressing the "*Detect Mode + Devices*" button, the new devices connected to the system are added to the list and the circle turns dark green again:

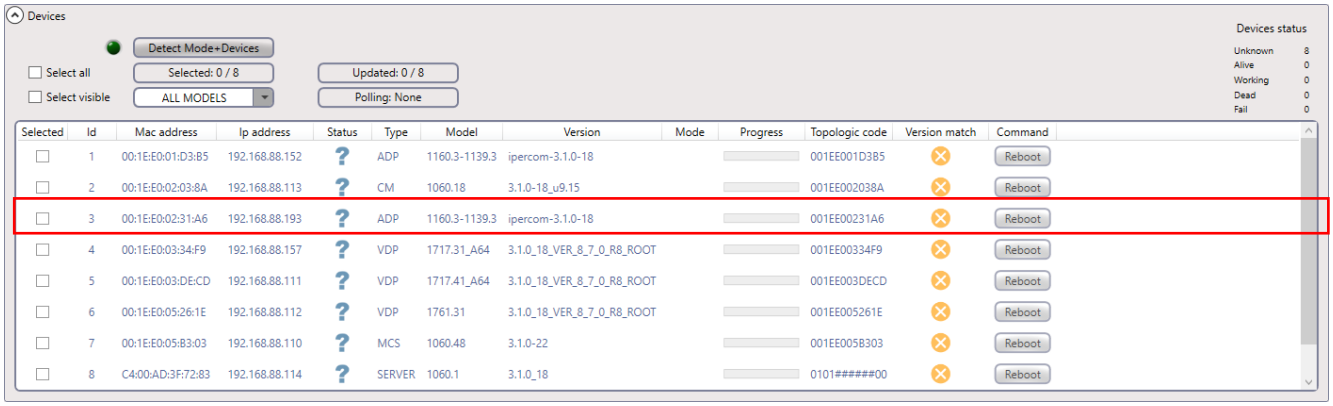


Figure 61: new device added to the list

If you connect to the system by creating a new project, the new devices are added directly to the list generated with the "Find Devices" button.

Changing operating mode

The "*Detect Mode + Devices*" button is also useful for forcing a change in *IPerUpgrade* operating mode, when it is running: for example, if you configure a *Server* 1060/1 to upgrade the other system devices, *IPerUpgrade* operation switches from **FULL MODE** to **ACTIVE MODE**. Press the "*Detect Mode + Devices*" button to force this mode change, which is confirmed by the following message:

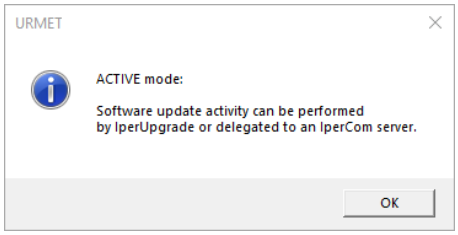


Figure 62: switch to active mode

The mode change is shown in the upper part of the application (on the left along with the version):

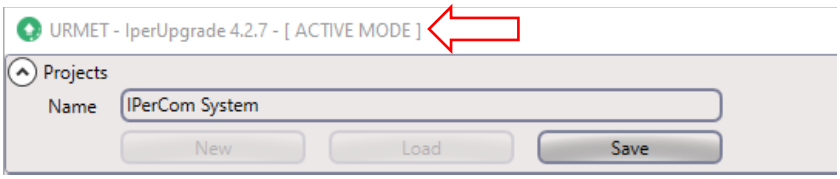


Figure 63: active mode

A similar message is displayed if the *Server* 1060/1 configured to update system devices is no longer configured to perform this operation or is disconnected from the system (again after pressing the "*Detect Mode + Devices*" button):

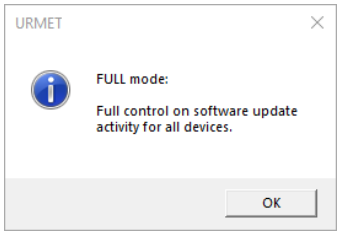


Figure 64: switch to full mode

The operating mode is also displayed in the "Commands" section, as described in the relevant paragraph.

The change of operating mode is not shown by any change in the colour of the green circle to the left of the "Detect Mode + Devices" button.

*For more information on **ACTIVE MODE**, see paragraph **Device upgrade: ACTIVE MODE and PASSIVE MODE**.*

*The pop-up message relating to **FULL MODE** is reported only through the "Detect Mode+Devices" button and not when opening a project after scanning the devices.*

9.4.1.3 Information on the devices

For each device, a series of information is reported which may vary depending on the operation being performed with *IPerUpgrade*. This information is grouped in a series of columns whose name, meaning, value and possible icon is shown in the following table:

Column Name	Meaning/Possible values	Icon
Selected	Flag to select/deselect a device	
ID	Unique identifier of the device	-----
Mac address	Device MAC address	-----
IP address	Device IP address	-----
Status	*Alive*: able to poll the device, if the device is selected	
	Dead: unable to poll the device, if the device is selected (e.g. if the device is not connected to the system or is faulty)	
	Unknown: the device is not selected or the application is waiting for a response from the device	
	Upload/Upgrade: device firmware upgrade or firmware upload is in progress	
	Fail: the upgrade process has failed	
Type	Device type (*)	-----
Model	Device model (*)	-----
Version	Firmware version on the device	-----
Mode	Type of system detected (field valued only for some devices).	-----
Progress	Progress of the upload and upgrade phase.	Progress bar green for upload phase / red for upgrade phase
Topologic code	Device position in the system topological structure (**)	-----
Version match	*Matches*: the imported firmware version matches the one already present on the device	
	Does not match: the imported firmware version does not match the one already present on the device	
	Unknown: No firmware updates have been imported yet	
Command	Button to reboot the device	

Table 5: icon meaning

(*): device types and models are shown in ***APPENDIX A: DEVICE TYPES AND MODELS***;
(**): if the device is not configured, its MAC address is displayed.

It is possible to sort the list of devices found in ascending or descending mode according to the values that appear in each individual column simply by clicking with the mouse on the column header.

9.4.1.4 Deleting from the list the devices no longer present on the system

If some devices are no longer connected to the system (e.g. because they are faulty), they will be displayed with a red arrow ( ) in the "*Devices*" section.

In systems without any *Server* 1060/1, simply press "*Find Devices*" button to remove them from the list. In this case, the following dialogue box is displayed:

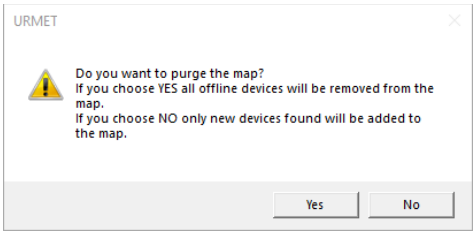


Figure 65: deleting the devices no longer connected to the system from the list

If you press the "*Yes*" button, *IPerUpgrade* performs a new search only of the devices connected to the IPerCom system: those marked with a red arrow will no longer appear.

The "*No*" button has the same effect as the "*Detect Mode + Devices*" button, that is it only adds the new devices connected to the system to the list.

In systems with at least one *Server* 1060/1, any devices no longer connected to the system will continue to be shown in the list with the corresponding red arrow. It is possible to exclude them from upgrade operations using the "*Exclude dead ones*" button.

9.5 SAVING THE PROJECT

Once the upgrade step is over (**FULL MODE** or **ACTIVE MODE/PASSIVE MODE**), it is possible to save the project with the "*Save*" button in the "*Projects*" section:

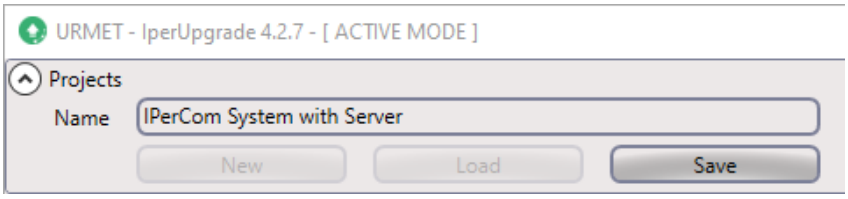


Figure 66: "Save" button

In this way, when the project is opened again with the "*Load*" button, the network card is loaded automatically and a new device discovery is made automatically: in this way it is possible to detect the presence of any new devices connected to the system. Lastly, the operating mode is also detected (**FULL MODE**, **ACTIVE MODE**, or **PASSIVE MODE**).

If the IPerUpgrade application is closed by mistake before saving the project, you are still asked whether you want to save the project or not.

The name of the last update file imported into *IPerUpgrade* is also saved in the project; therefore, when opening an already saved project you are also asked if you want to open the last mup or xmup file loaded previously through this dialogue window:

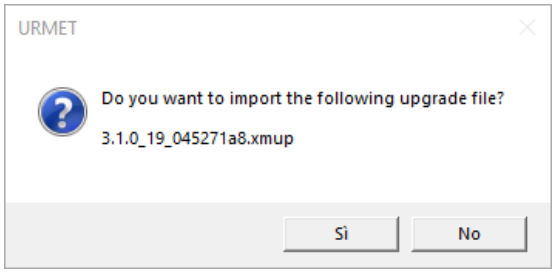


Figure 67: upgrade file import request

The "*Yes*" button allows importing the upgrade file displayed in the pop-up window.
This can be useful to check that the firmware release of the devices is aligned with the release just imported (symbol ✓ in the "*Version Match*" column).
Furthermore, if new devices have been added to the system, these will be displayed in the list with the symbol ⊗ in the "*Version Match*" column, that is as devices not yet upgraded.

10 CUSTOM VIDEO DOOR PHONES

In addition to the update files officially released for the IPerCom system present on the website ***www.urmet.com*** and on Urmet Cloud (files with .mup or .xmup extension), it is possible to create other update files called *custom*. These update files (always with .mup or .xmup extension) allow you to customize the following video door phones:

System	Device	Ref.
IPerCom	Video door phone 7'' MAX	1717/3x-4x
	Video door phone 10'' MAX	1717/21-21U-22-22U-23-23U
	Video door phone 7'' *VOG*[7]	1761/31-31U-32-33-33U
	Video door phone 7'' Basic	1741/1-2-3
	Video door phone 10''	1761/23

Table 6: list of video door phones that can be customized

The customizations mainly concern the graphic interface and the addition/deletion of apps.
Video door phones upgraded through customized upgrade files are referred to as *custom* video door phones.

*The custom IPerCom system update files (with .mup or .xmup extension) contain within them the relevant custom update file of one or all of the video door phones listed in **Table 6**.*

For creation of custom IPerCom system update files and custom video door phone upgrade files contact Urmet Technical Service.

If there are *custom* video door phones in the IPerCom system, to update the system the 2 points below must be taken into consideration:

- for the same type of video door phones (among those listed in ***Table 6***) the IPerCom system update file can contain either the custom file or the non-custom file;
- *Server* 1060/1 cannot always update *custom* video door phones.

The first point implies that if the customizations are not the same for a specific type of video door phone, it is necessary to carry out multiple updates.

The second point implies that updating the system from *Server* 1060/1 is not always possible and you need to use application *IPerUpgrade*.

These points will be highlighted later.

*Once the IPerCom system update file has been imported into IPerUpgrade (with .mup or .xmup extension), if this is not custom, the video door phone update files in **Table 6** are marked with the ROOT suffix; otherwise they are marked with a suffix (identifier) assigned during the creation of the video door phone custom update file. This can be seen from the figure below:*

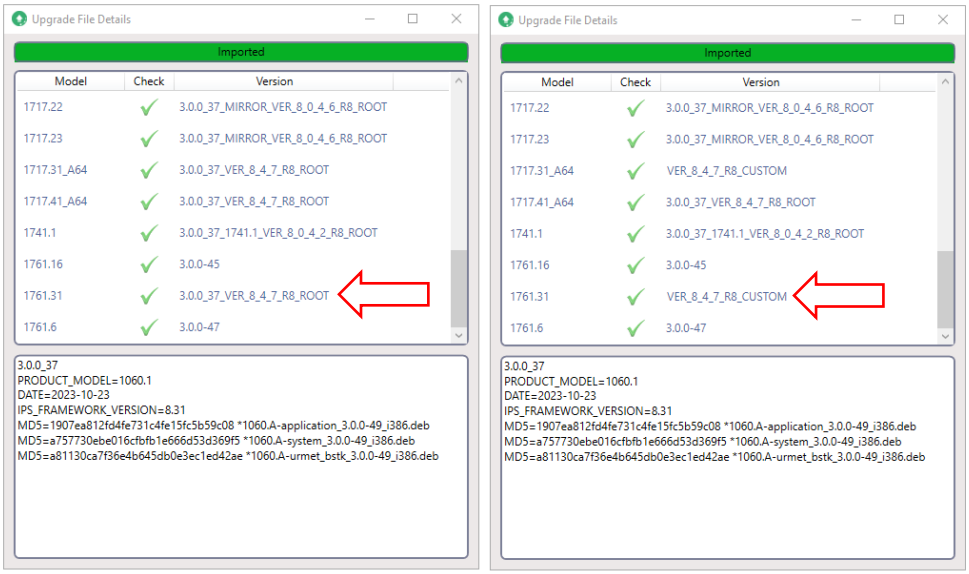


Figure 68: video door phone update files with ROOT and CUSTOM suffixes

It is important to underline that for the Server 1060/1 to be able to update the custom video door phones, the identifiers of the current version and the version you want to install must be the same.

The following 2 common cases can occur in a system:

1. customizations required are the same for all video door phones (or more generally, for the same video door phone model, customizations are the same);

2. for the same model of video door phone, different customizations are required (for example, some video door phones are *custom* and others not).

The 2 different cases are represented in the following figure:

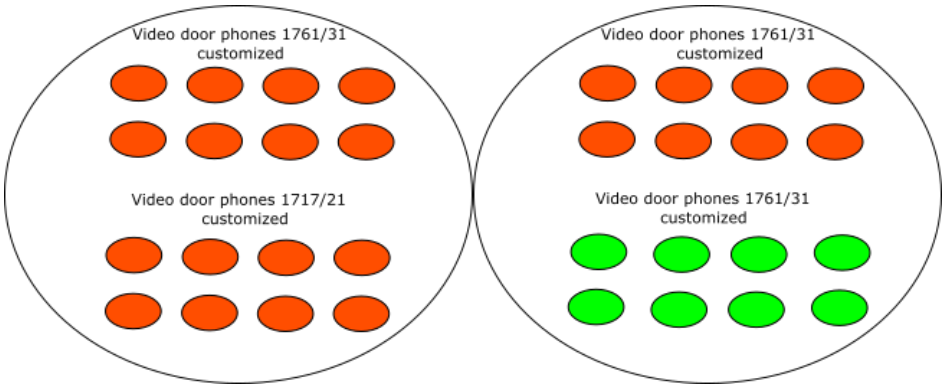


Figure 69: similar (left) and different (right) customizations

For each of the 2 cases indicated above it is advisable to proceed as described below depending on whether the system has a *Server* 1060/1 configured to update the other devices.

APPENDIX B: HOW TO UPGRADE CUSTOM AND NON-CUSTOM VIDEO DOOR PHONES *contains a table showing the cases in which a custom or non-custom video door phone can be updated by IPerUpgrade or by the Server via a custom or non-custom update file.*

10.1 SAME CUSTOMIZATIONS FOR ALL VIDEO DOOR PHONE MODELS

10.1.1 NO SERVER IN THE SYSTEM CONFIGURED TO UPDATE DEVICES

The update must be always done via *IPerUpgrade* in **FULL MODE** (see paragraph ***Update of the entire system (FULL MODE)***) using the custom IPerCom system update file (mup or xmup file): in this way the video door phones listed in ***Table 6*** are made custom (one or more models). Once made custom, *IPerUpgrade* can make them non-custom again or update them with an update file with a different identifier from the previous one. This means that *IPerUpgrade* has no restrictions on updating video door phones.

For further details on the identifier of an upgrade file, contact Urmet Technical Service.

The procedure is summarized in the following figure:

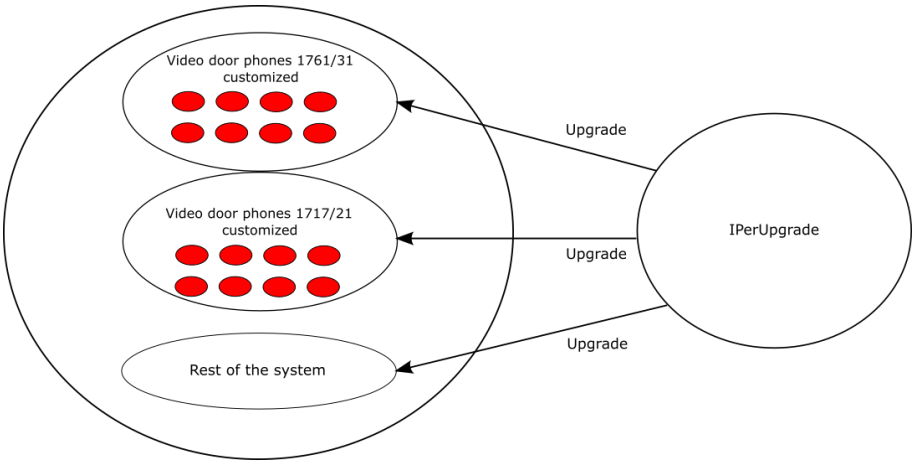


Figure 70: update of the system with no Server 1060/1

Any other video door phones or devices added later must be updated via *IPerUpgrade*.

Once the custom update of a video door phone has been completed, the firmware version with the relevant identifier appears in the "*Version*" column. If not custom, identifier *ROOT* appears.

10.1.2 AT LEAST ONE SERVER CONFIGURED TO UPDATE DEVICES IN THE SYSTEM

It is possible to proceed in one of the following ways depending on whether the system is configured or not.

SYSTEM INSTALLED AND ALREADY WORKING

The update can be done via *IPerUpgrade* in **ACTIVE MODE** and **PASSIVE MODE** (see paragraph ***Device upgrade: ACTIVE MODE and PASSIVE MODE***).
Since in **ACTIVE MODE** it is *IPerUpgrade* that takes care of updating the video door phones, as seen before, there are no restrictions on updating them, that is *IPerUpgrade* can make them non-custom again or update them with an update file with a different identifier from the previous one.
The procedure is summarized in the following figure:

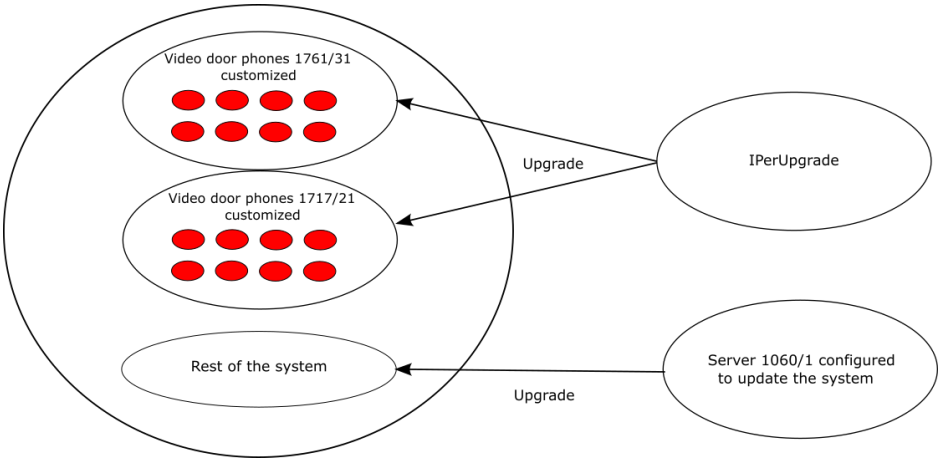


Figure 71: update of the system with IPerUpgrade and Server 1060/1 configured to update devices

SYSTEM JUST INSTALLED BUT NOT CONFIGURED YET

You can follow the steps below as an alternative to the procedure above:

- using the *IPerUpgrade* application, upgrade the *Server* 1060/1 (disconnected from the system) with the required custom system update file;
- create a basic IPerCom configuration that includes only the *Server* 1060/1 by means of the IPerCom *configurator*;
- configure the *Server* 1060/1 so that it can upgrade the other system devices (by means of the IPerCom *configurator*);
- distribute the configuration thus created to *Server* 1060/1;
- connect the *Server* 1060/1 to the system.

In this way the *Server* 1060/1 will be able to update the other devices present in the system and customize the video door phones. The procedure is summarized in the following figure:

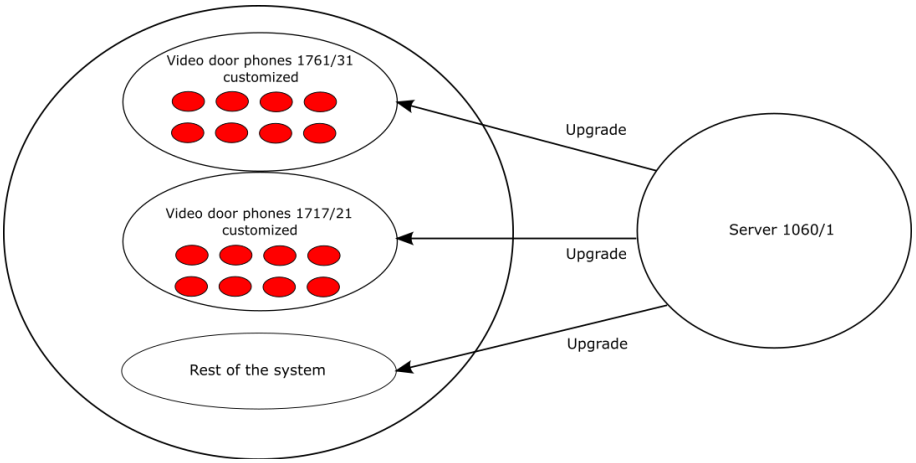


Figure 72: update of the system with Server 1060/1 configured to update devices

Any other devices added later can be updated via *IPerUpgrade* or *Server* 1060/1. The only exception is represented by the addition of custom video door phones whose identifier is different from that present in the mup or xmup file already installed on the system: in this case the update must be carry out from *IPerUpgrade*.

Once the custom update of a video door phone has been completed, the firmware version with the relevant identifier appears in the "*Version*" column. If not custom, identifier *ROOT* appears.

10.2 SAME VIDEO DOOR PHONES WITH DIFFERENT CUSTOMIZATIONS

10.2.1 NO SERVER IN THE SYSTEM CONFIGURED TO UPDATE DEVICES

The update must be done in multiple sessions via *IPerUpgrade* in **FULL MODE** with the button "*Selective Update*" (see paragraph ***Selective update (FULL MODE)***).

This is because for each customization request it is necessary to:

- select the video door phones for which the customization in question has been requested;
- import the required custom mup or xmup file into *IPerUpgrade* and upgrade.

In the last update session, it is also possible to update the rest of the system.

In this way the video door phones listed in ***Table 6*** are made custom. Once made custom, *IPerUpgrade* can make them non-custom again or update them with an update file with a different identifier from the previous one. This means that *IPerUpgrade* has no restrictions on updating video door phones.

The procedure is summarized in the following figure:

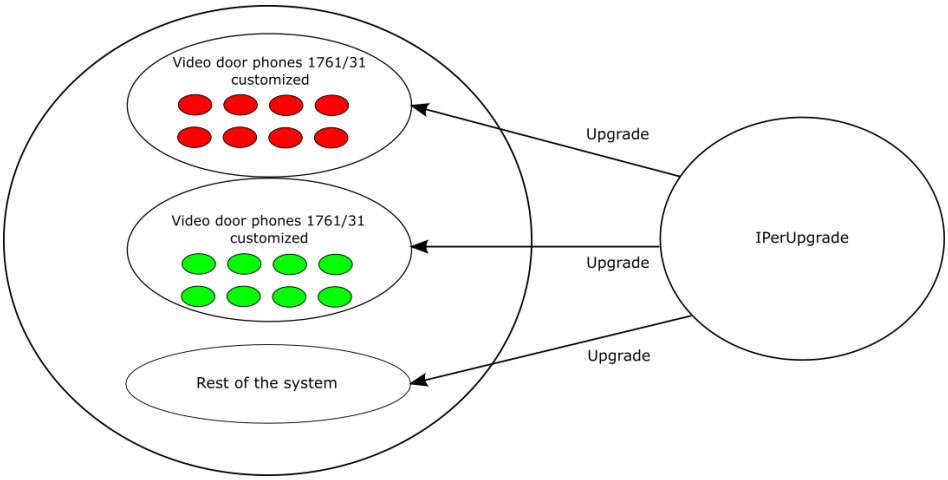


Figure 73: update of the system with no Server 1060/1

Any other video door phones or devices added later must be updated via *IPerUpgrade*.

Once the custom update of a video door phone has been completed, the firmware version with the relevant identifier appears in the "*Version*" column. If not custom, identifier *ROOT* appears.

10.2.2 At least one Server configured to update devices in the system

The procedure is like what was seen in the case of a system without *Server* 1060/1 with the only difference that the selective update is done in **ACTIVE MODE** (see paragraph ***Selective update (ACTIVE MODE)***).

Once the Server 1060/1 has been updated, it will not update the custom video door phones updated previously with IPerUpgrade because identifiers are different.

Any other devices added later can be updated via *IPerUpgrade* or *Server* 1060/1. The only exception is represented by the addition of custom video door phones whose identifier is different from that present in the mup or xmup file already installed on the *Server* 1060/1: in this case the update must be carry out from *IPerUpgrade*.

Once the custom update of a video door phone has been completed, the firmware version with the relevant identifier appears in the "*Version*" column. If not custom, identifier *ROOT* appears.

10.3 FLEX OPTIONS

The "*Apply Flex Options*" button is linked to the use of customized IPerCom system update files, more specifically it concerns the forcing of the homepage and wall paper on custom the video door phones according to what was done in the custom update.

When the *custom* update phase is finished, the homepage and wall paper of custom video door phones can be the following, according to what reported below:

- if before the custom update the homepage and wallpaper were the default ones, these are forced to what was set in the custom update;

- if before the custom update the custom homepage and wallpaper were different from the default ones, they remain as they are.

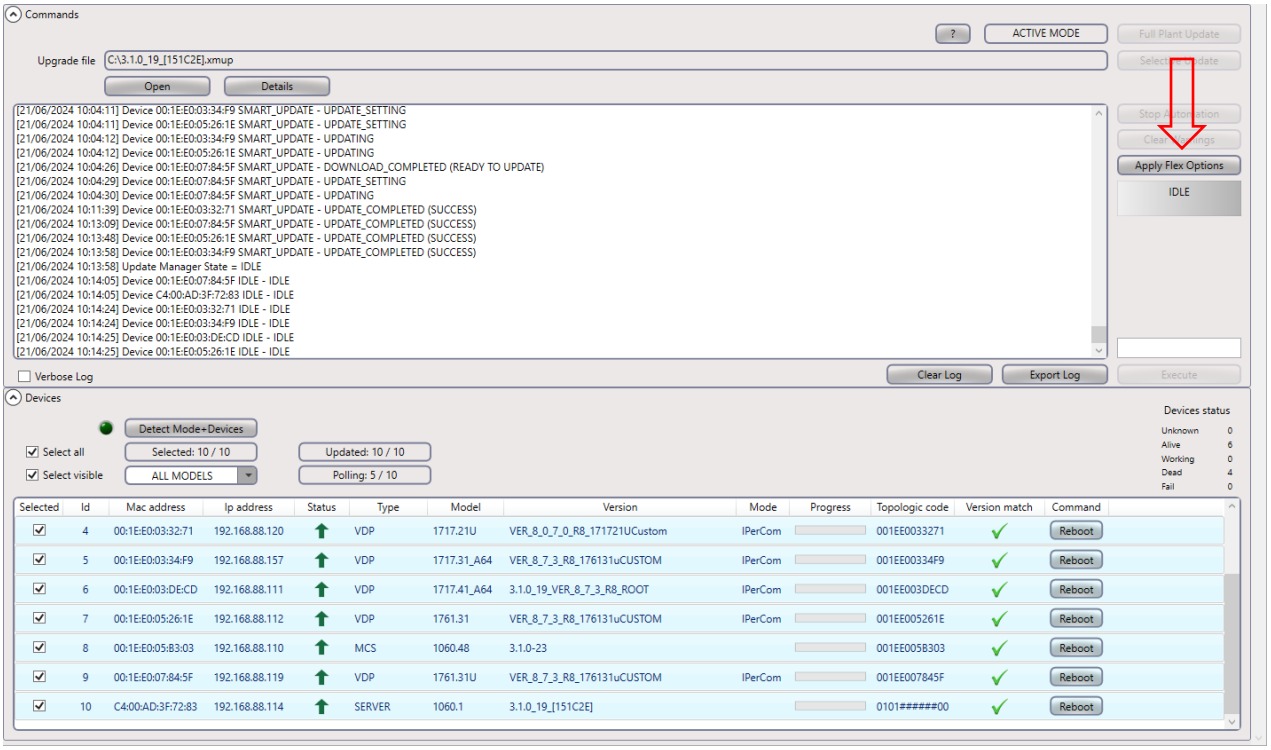


Figure 74: custom update ended

If button "*Apply Flex Options*" (red arrow) is pressed after the custom update, homepage and wallpaper of selected custom video door phones are forced to what selected in the custom update.

11 IPERUPGRADE LOGS

In the "*Commands*" section there is a box (highlighted in red) where the *IPerUpgrade* logs are displayed, that is the history of the operations carried out by the application is shown, as reported in the figure below:

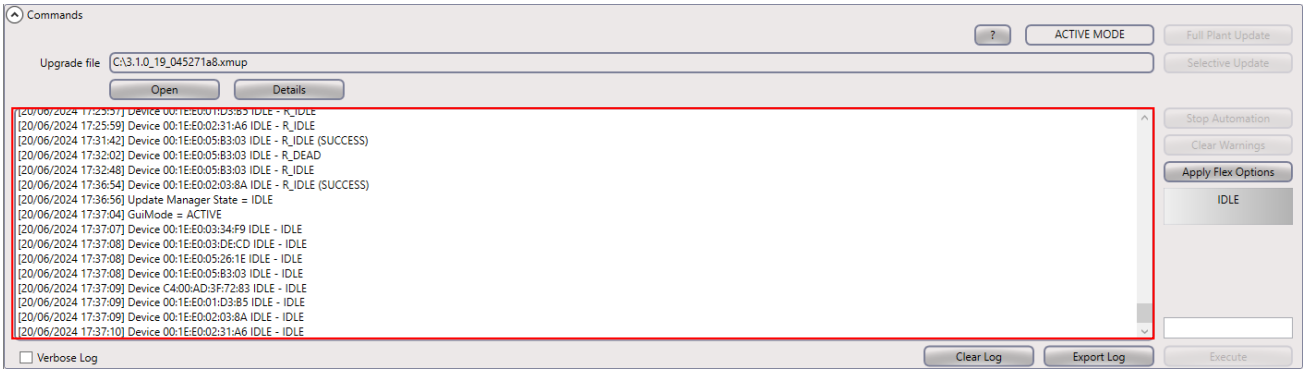


Figure 75: IPerUpgrade logs

The logs can be:

- deleted with the "*Clear log*" button;
- exported to a file with the "*Export log*" button (the file path is written on the logs);
- more detailed by selecting "*Verbose log*" checkbox.

12 TROUBLESHOOTING

12.1 IPERUPGRADE CANNOT FIND THE DEVICES CONNECTED TO THE SYSTEM

If the "*Find Devices*" button does not find any of the devices connected to the system, it is necessary to make sure that communication between the IPerCom system and the *IPerUpgrade* application is working properly on the IP network. To do this, click on the item "*Open Network and Internet settings*", which appears by pressing with the right mouse button the icon  at the bottom of right on your PC monitor. The following screen is displayed:

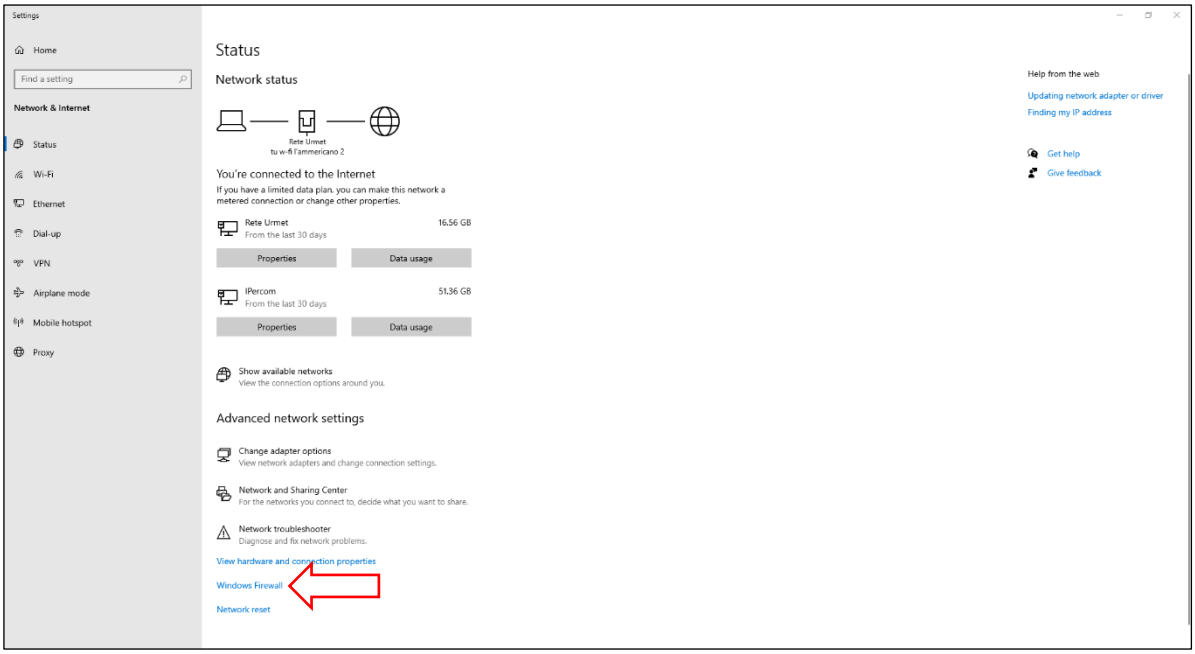


Figure 76: list of available networks

Press the item “*Windows Firewall*” (red arrow). The following screen is displayed:

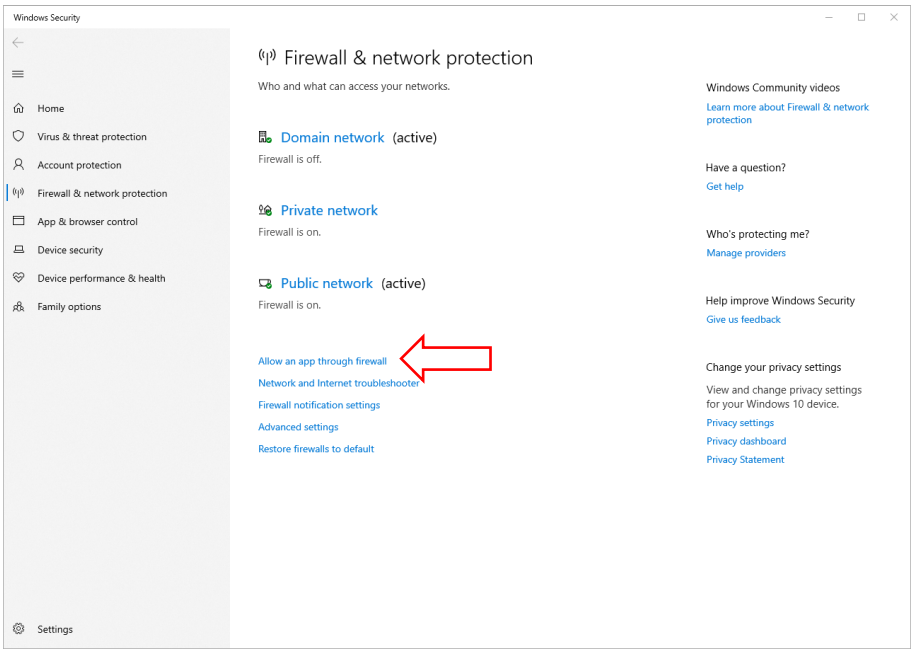


Figure 77: firewall and network protection

Press the item “*Allow an app through Firewall*” (red arrow). The following screen is displayed:

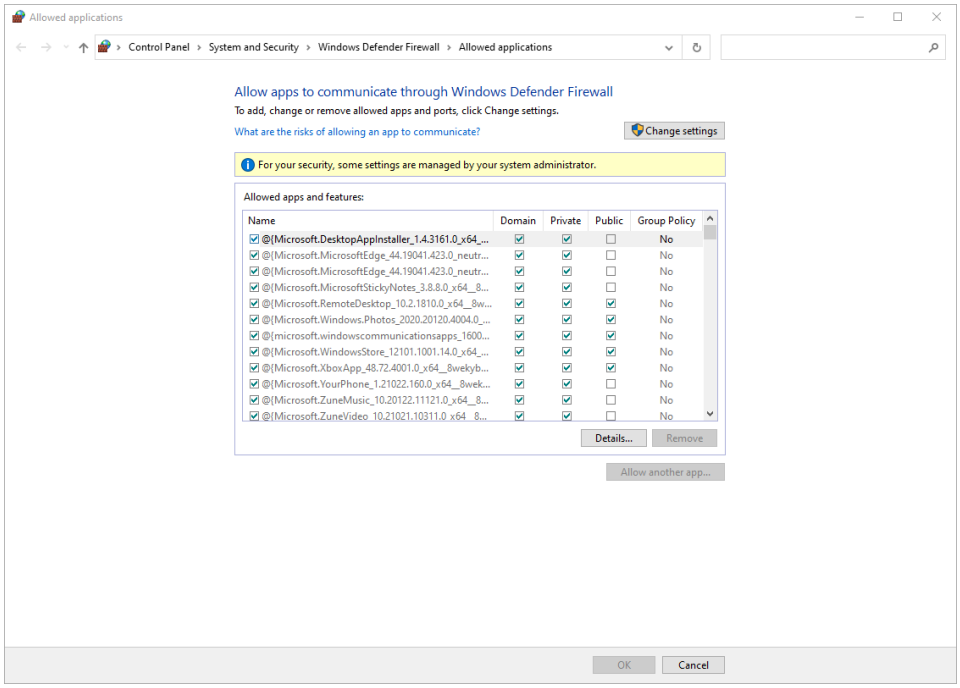


Figure 78: firewall settings for different apps

In the list above find the item "*Urmet IPerUpgrade Rule (Inbound)"* and check that all 3 checkboxes are selected, as shown below (red box):

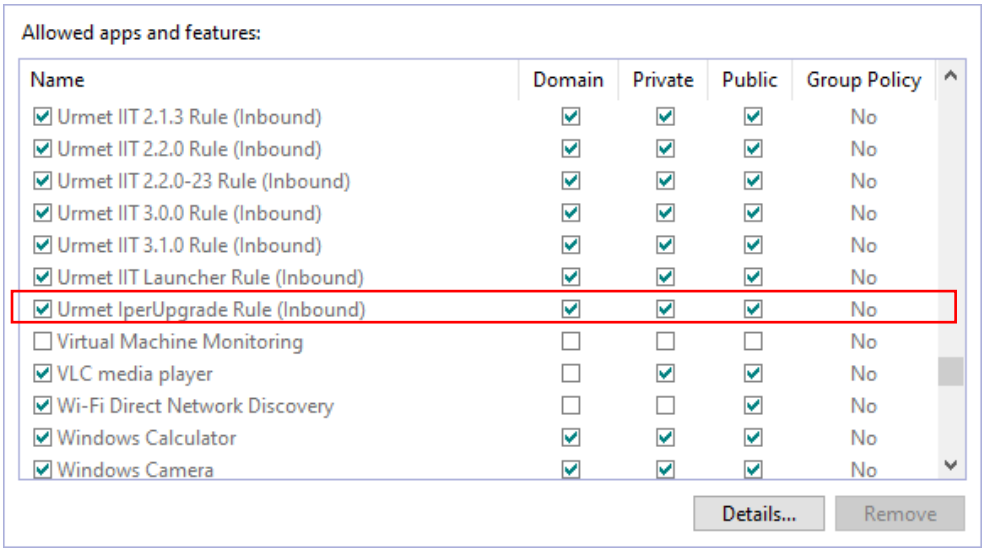


Figure 79: firewall rules correctly set for the IPerUpgrade application

If not, it is necessary to press "*Change settings*" button (***Figure 78***), select the "*Urmet IPerUpgrade Rule (Inbound)"* item, make sure that all 3 checkboxes are flagged and then confirm with the "*OK*" button.

12.2 IPERUPGRADE SHOWS A WRONG IP ADDRESS ON THE NETWORK INTERFACE

If the network interface with which you are connecting to the IPerCom system shows an incorrect IP address in the "*Local IP*" drop-down menu, make sure that a second IP address has not been set on the network interface in question. For the *IPerUpgrade* application to work properly, the network interface through which your PC communicates with the IPerCom network must have a unique (static or dynamic) IP address. If multiple IP addresses are associated with the same network interface, the correct functioning of the application is not guaranteed.

12.3 IPERUPGRADE FAILS TO RESTORE NETWORK PARAMETERS

By opening an already saved project, *IPerUpgrade* may show the following message:

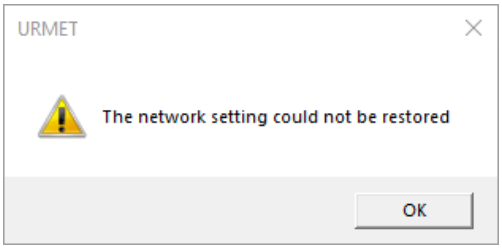


Figure 80: impossible to restore network parameters

This means that you have connected to the IPerCom system via a different network interface from the one used before and therefore the MAC address has changed.
To open the project again, after pressing "*OK*" on the above window, it is necessary to select the new network interface from the "*Local IP*" drop-down menu and press the "*Find Devices*" button to get the list of devices again.
Then press the "*Save*" button to save the new network parameters.

12.4 IPERUPGRADE FAILS TO UPGRADE ALL DEVICES

During the update phase (both **FULL MODE** and **ACTIVE MODE**), there is a default automatic mechanism for restoring any errors and repeating the update cycle (for maximum 5 times) if one or more devices fail to update.
If at the end of the 5 update cycles *IPerUpgrade* is unable to update one or more devices, a screen like the one below appears:

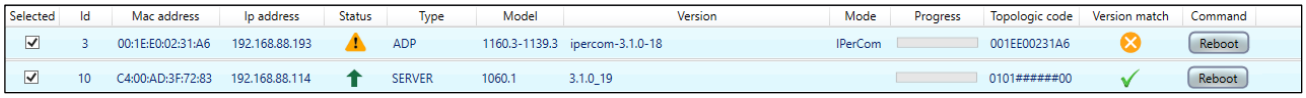


Figure 81: devices not upgraded

The not upgraded devices are marked with symbol  in the "*Status*" column.

This can happen for various reasons, the most frequent of which are:

- upgrade time is longer than normal time (systems with many devices),
- there is no connection between the PC and the IPerCom system,
- devices displaying the symbol in question do not work properly.

In one of these cases, the following dialogue box is displayed:

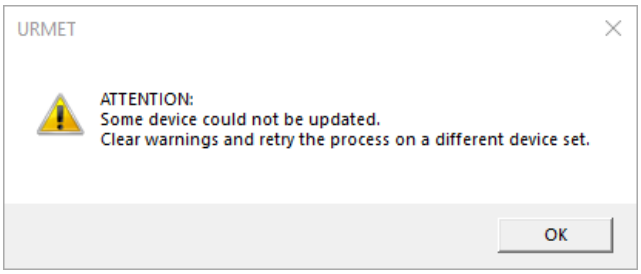


Figure 82: dialogue window on device upgrade failed

After pressing the "*OK*" button, the dialogue window disappears and before trying to update the system you need to press the "*Clear Warnings*" button:

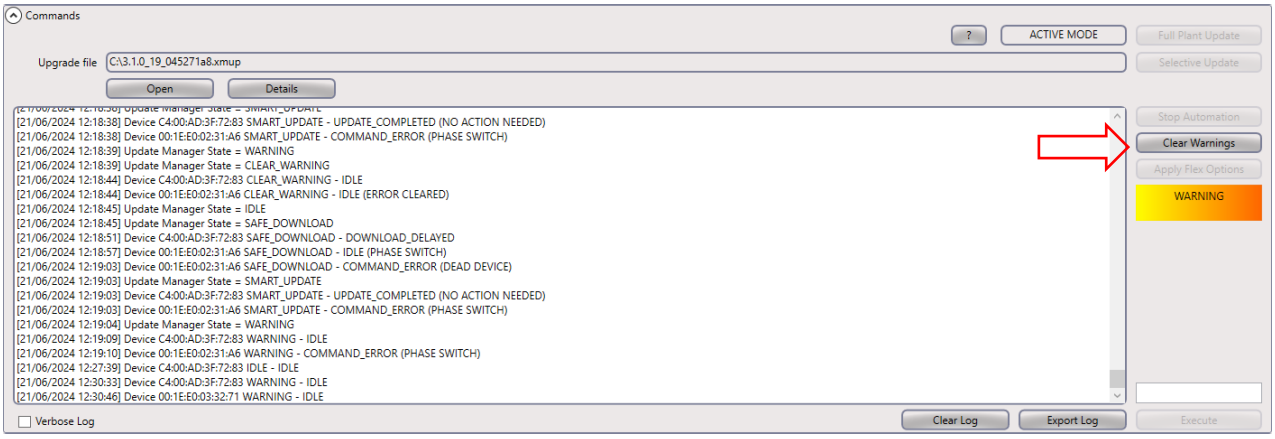
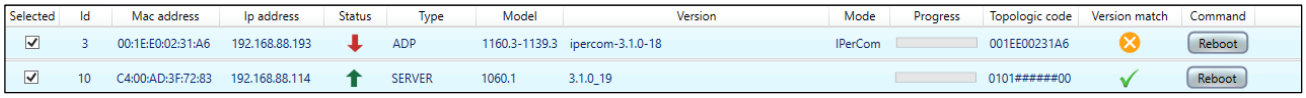


Figure 83: clear warning button

In this way *IPerUpgrade* application shows the symbol  in the "*Status*" column:



Selected	Id	Mac address	Ip address	Status	Type	Model	Version	Mode	Progress	Topologic code	Version match	Command
☑	3	00:1E:E0:02:31:A6	192.168.88.193	↓	ADP	1160.3-1139.3	ipercom-3.1.0-18	IPerCom		001EE00231A6	⊗	Reboot
☑	10	C4:00:AD:3F:72:83	192.168.88.114	↑	SERVER	1060.1	3.1.0_19			0101######00	✓	Reboot

Figure 84: device that does not communicate with IPerUpgrade

Buttons "*Full Plant Update*" and "*Selective Update*" are now available for a new update attempt:

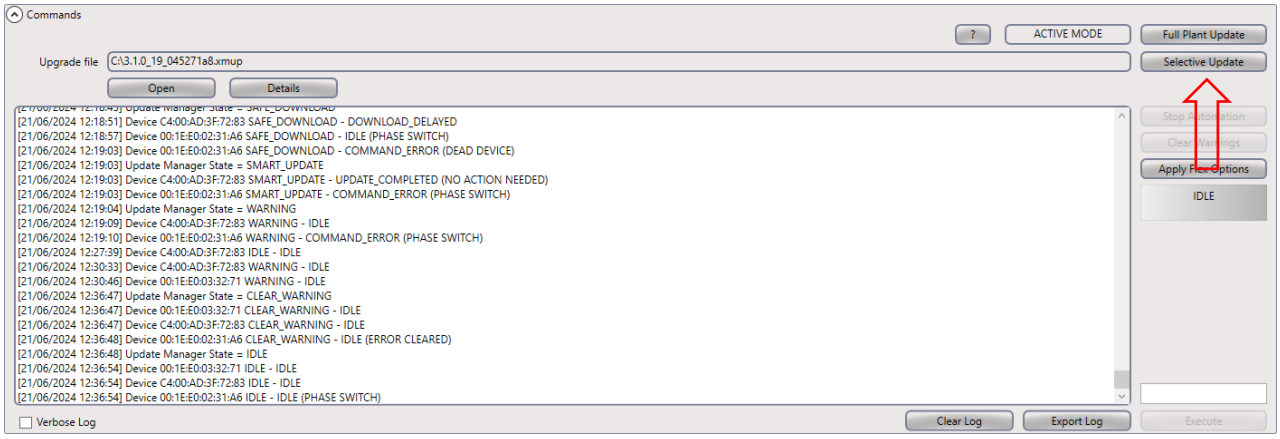


Figure 85: update buttons available

*During the update phase (both in **FULL MODE** and **ACTIVE MODE**) the "Stop Automation" button allows you to block the automatic repetition of the update and error recovery cycle. If you press" Yes" on the relevant dialog box, any failed update messages on one or more devices must be manually deleted and a second update cycle must be started manually.*

12.5 IPERUPGRADE STARTS IN DISABLED MODE

If two instances of *IPerUpgrade* (running on two different PCs) try to connect to the same IPerCom system, the last of the two instances that acquires the list of devices (or opens an already saved project) starts in **DISABLED MODE**, that is shows the following message:

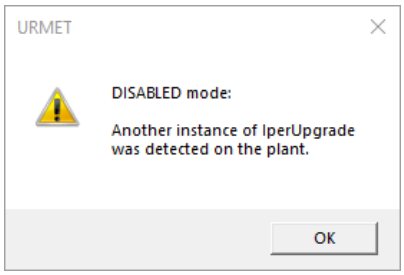


Figure 86: disabled mode

By pressing the "*OK*" button, the message disappears and the operating mode is displayed (again) in the upper part of the application (on the left together with the version) and in the "*Commands*" section:

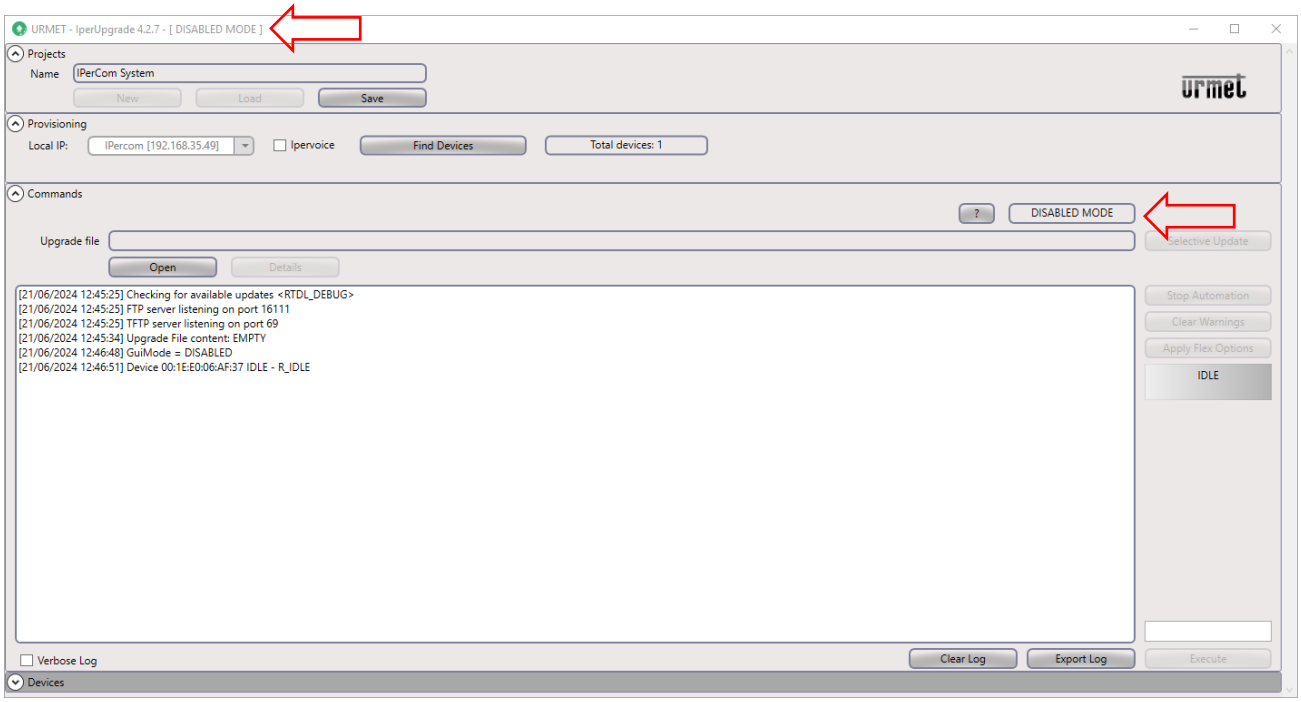


Figure 87: disabled mode on IPerUpgrade graphic interface

In **DISABLED MODE** it is only possible to check the status of the devices (whether they respond to polling or not) regardless of whether they are selected.

It is not possible to:

- import any firmware upgrade file;
- send reboot commands to the devices.

To quit the **DISABLED MODE**, close the first open *IPerUpgrade* instance and then press the "*Detect Mode + Devices*" button on the second instance that is still open. In this way *IPerUpgrade* sets its operating mode to **FULL MODE**, **ACTIVE MODE,** or **PASSIVE MODE**.

12.6 IPERUPGRADE CANNOT UPGRADE ALL SYSTEM DEVICES

The firmware upgrade of the various devices in an IPerCom system is performed using a single file with .mup (Multiple Upgrade Package) extension or with .xmup (Extended Multiple Upgrade Package) extension: these files contain the single upgrade files for every device.

On the contrary call forwarding devices are upgraded through a file with .zip extension.

Therefore update files with .mup or .xmup extension cannot update call forwarding devices and similarly update files with the .zip extension cannot update IPerCom devices.

If you try to update a system that has both IPerCom devices and call forwarding devices, *IPerUpgrade* will therefore notify the user that it cannot proceed with the update of the entire system, importing a mup file or a xmup file or a zip file. Because of that button "*Full Plant Update*" is frozen.

There are 2 cases that can arise:

- the update file, imported into *IPerUpgrade*, can only update a group of devices (IPerCom or call forwarding devices);

- the update file, imported into IPerUpgrade, cannot update any device.

Consequently, it is possible to have the two dialog box messages below.

CASE A

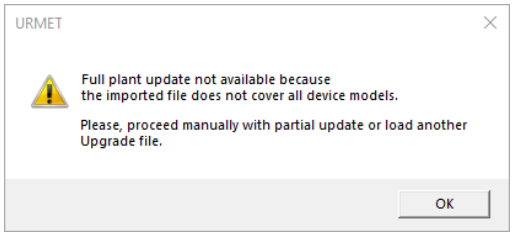


Figure 88: partial update

After closing the dialog box, you can:

- select the devices that can be updated from the imported file and then press the button "*Selective Update*",
- load another update file if the devices you want to update are different.

CASE B

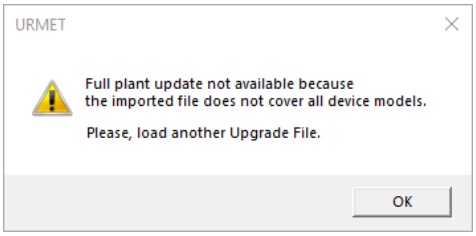


Figure 89: no devices can be updated

The dialog box says that another update file needs to be loaded because:

- updatable devices are already updated to the uploaded file,
- devices you want to update are different.

12.7 PC NETWORK CARD IP ADDRESS IS NOT COHERENT WITH IPERCOM SUBNET

If the IP address of the network card, through which the PC (where *IPerUpgrade* is running) connects to the IPerCom system, does not belong to the same IPerCom subnet, what happens is shown in the following 2 figures:

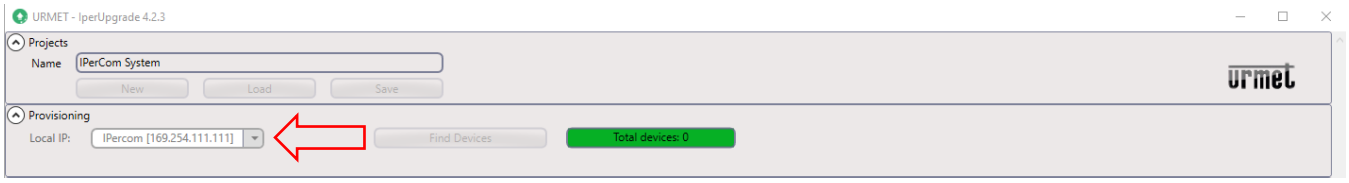


Figure 90: PC network card set to 169.254.111.111

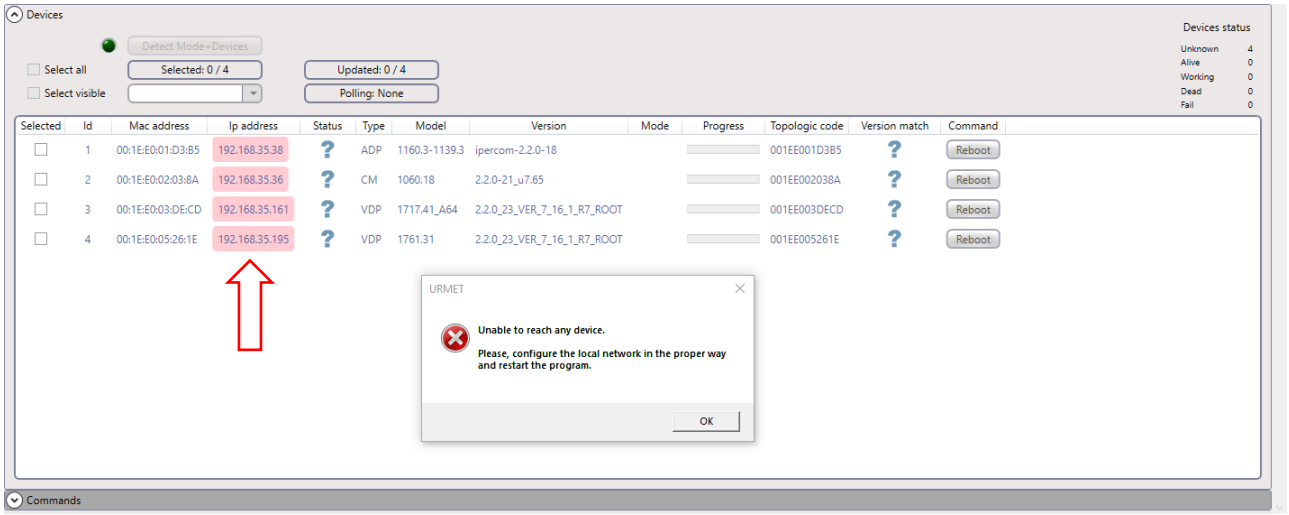


Figure 91: not coherent IP address of PC network card

As can be seen from the figures above, the IP address of the PC network card is not consistent with the (highlighted) IP addressing of the IPerCom system devices (red arrows). It is therefore necessary to change the configuration of the network card of your PC, otherwise it will not be possible to update the system.

The same non-coherent situation is detected if only some devices of the IPerCom system have an IP addressing that is not consistent with the IP address of the PC network card, as shown in the following figures:

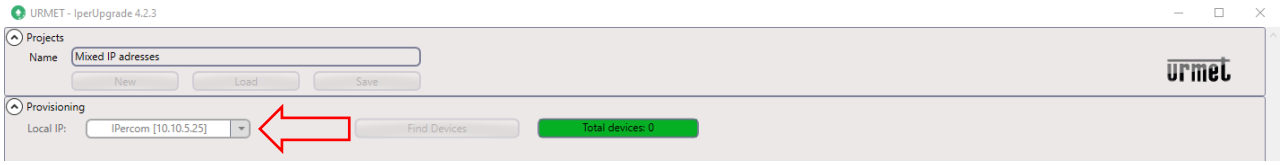


Figure 92: PC network card set to 10.10.5.25

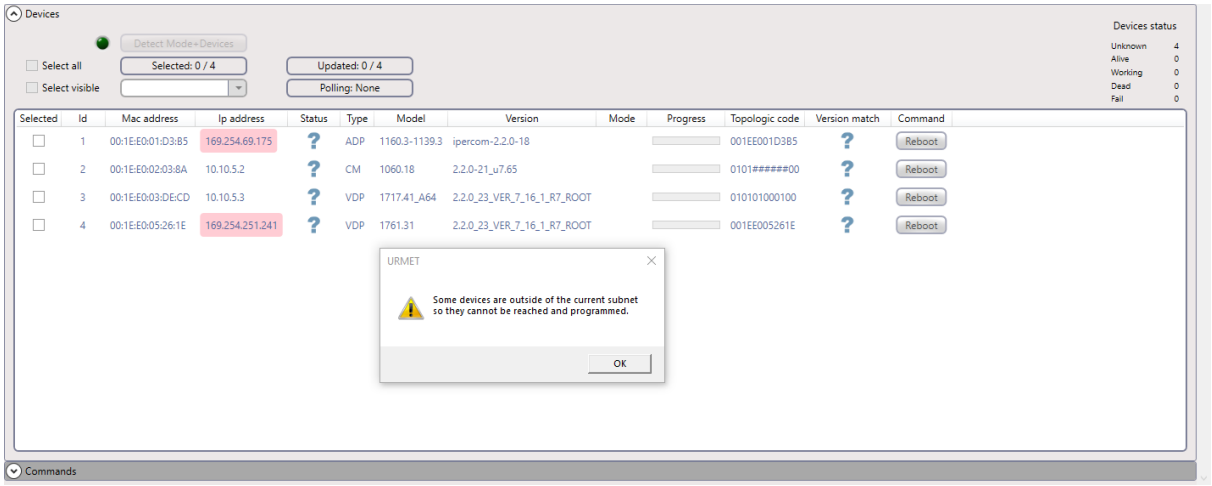


Figure 93: not coherent IP address of some IPerCom devices

In this case it is possible to update only the devices whose IP address is not highlighted.

12.8 DOWNGRADE PROCESS OF AN IPERCOM SYSTEM

If a previously configured IPerCom system is downgraded (that is updated with a lower version than the one present on the various devices), at the end of the downgrade process the various devices lose their configuration.

This implies that in the case of a system with *Server* 1060/1 configured to update the devices, at the end of the **ACTIVE MODE** phase, the *Server* 1060/1 will no longer be able to update the rest of the system (as it has lost the configuration).

This is notified to the user via the following dialog:

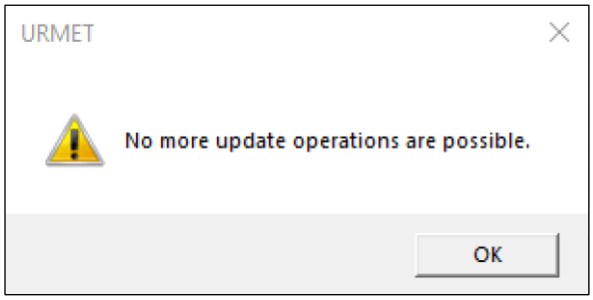


Figure 94: end of upgrade process if Server 1060/1 loses its configuration

If a device loses its configuration, its MAC address appears in the "Topological code" column instead of its topological code.

13 APPENDIX A: DEVICE TYPES AND MODELS

IPerUpgrade can upgrade the firmware of device types listed below. Each type of device can match several models. Device types and models are displayed in "*Type*" and "*Model*" columns, respectively, in the "*Devices*" section.
The possible types and models are shown in table:

Type	**Model**
SERVER (*Server*)	1060.1
CM (*Call Module*)	1060.13, 1060.18, 1060.23
MCS (*Modular Entry Panel with 1060/48*)	1060.48
PEIP (*Entry Panel*)	1060.21, 1060.33, 1060.34, 1060.74
PACM (*Private Call Module*)	1060.22
SWB (*Switchboard*)	1060.41
SWB (*Switchboard*)	1060.42
VDP (*Video door phone*)	1761.31
VDP (*Video door phone*)	1761.16
VDP (*Video door phone*)	1761.6
VDP (*Video door phone*)	1717.31_A64
VDP (*Video door phone*)	1717.41_A64
VDP (*Video door phone*)	1741.1
VDP (*Video door phone*)	1717.21
VDP (*Video door phone*)	1060.43
VDP (*Video door phone*)	1717.31 (No longer supported by IPerCom version 2.1.0)
VDP (*Video door phone*)	1717.41 (No longer supported by IPerCom version 2.1.0)
VDP (*Video door phone*)	1761.23
ADP (*Door phone*)	1160.3-1139.3
GATEWAY (*2Voice Gateway*)	1083.59
CLOCK (*IPerCom Clock Module*)	1060.85
CALL FORWARDER (*Call Forwarding Devices*)	1083.58, 1083.83, 9854.58

Table 7: list of device types

All devices listed in ***Table 1*** and ***Table 2*** can be associated to one of the types and models listed above.

14 APPENDIX B: HOW TO UPGRADE CUSTOM AND NON-CUSTOM VIDEO DOOR PHONES

The following table shows the cases in which a *custom* or *non-custom* video door phone can be upgraded by *IPerUpgrade* or a *Server* 1060/1 or both:

Type of upgrade on mup or xmup file	**Type of upgrade present on the video door phone**	**Identifier on mup or xmup file == Identifier present on video door phone**	**Can *IPerUpgrade* upgrade the video door phone?**	**Can *Server* 1060/1 upgrade the video door phone?**
Custom	*Non-custom*		Yes	Yes
Custom	*Custom*	Yes	Yes	Yes
Custom	*Custom*	No	Yes	No
Non-custom	*Non-custom*		Yes	Yes
Non-custom	*Custom*		Yes	No

Table 8: how to upgrade custom and non-custom video door phones

It is not relevant whether the video door phones are configured or not.

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