

iHC-T Application Installation Manual



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1. Introduction

The iHC-TA application is a supplement to the iNELS intelligent electroinstallation system which allows controlling of the entire system from a tablet with Android operation system. The main advantage of the application is the possibility of controlling all integrated technologies from a sole application, whilst you are either connected home in a local network (LAN), or anywhere out of your house with internet access (mobile data, wifi connection, etc.).

Ellegant as it is, iNELS perfectly mingles with any modern household, and thanks to the iHC-TA application, allows permanent supervision over electroinstallation, as well as comfortable central control over the entire house from one place. iHC-TA lets you control the lighting, blinds, shutters, outlets, heating, appliances, watering, cameras, multimedia (audio, video), Miele house appliances, home call boxes, air conditioning units, recuperation, information from meteostation, status of consumed energies, and the like.

The menu is divided in a clear section where individual functions are illustrated by icons. You can also find shortcut access to your favourite functions whilst still being aware of what is happening in the other zones of your house.

Now you can also secure individual rooms in the application. By entering a password in IMM Control Centre you will activate security of respective rooms, and prevent any unauthorised person from controlling iNELS via iHC.

The iHC application function is enabled:

- indirectly with the central unit using virtual server when you can control bus iNELS elements, i.e. for instance lighting (opening, dimming), blinds, shutters, outlets, security system, scenes, central function, watering or heating system.
- With Connection Server which allows you to control also cameras, air conditioning, recuperation, home call boxes, meteostation, or watch the levels of consumed energies
- with IMM server which additionally allows controlling of multimedia, i.e. Video zones (starting music, video, television, or browsing photographs from the central storage), and Audio zones (starting music from the central storage).

iHC is an abbreviation of iNELS Home Control, and the letters behind the dash define the equipment (T – tablet, M – mobile), and operation system (A – Android, I – iOS/Apple). The iHC-TA application is therefore designed for tablets with the Android 2.2 operation system and higher. It is optimised for devices with screen with 1280x800 resolution. The language of the application corresponds with the language set in OS Android.

Application availability

The application is available on Google Play (formerly Android Market) under the name iNELS Home Control Tablet. The application is updated regularly. After receiving the licence key that allows registration of the application you need to enter the registration email in the application. The application is free, and the registration is not charged at all.

<https://play.google.com/store/apps/details?id=cz.elkoep.ihcta&hl=cs>

2. Application installation in your device

- a) Once the installation is completed, the device will offer a window offering opening the newly installed application. When the application opens, you need to enter registration email and following licence that you will receive directly to the registration email you have entered (Fig. 1). By pressing “Continue”, after the elapse of 5 seconds, you can fully run the application without the necessity of entering the licence number.
- b) For sending the registration email and verifying the application licence you need to be connected to the internet!



Figure 1 Product registration

Upon the successful entry of the registration number or option “Continue” the application is ready for use.

3. Basic application settings

Use the "Setting" key to call up the menu of the basic application setting.

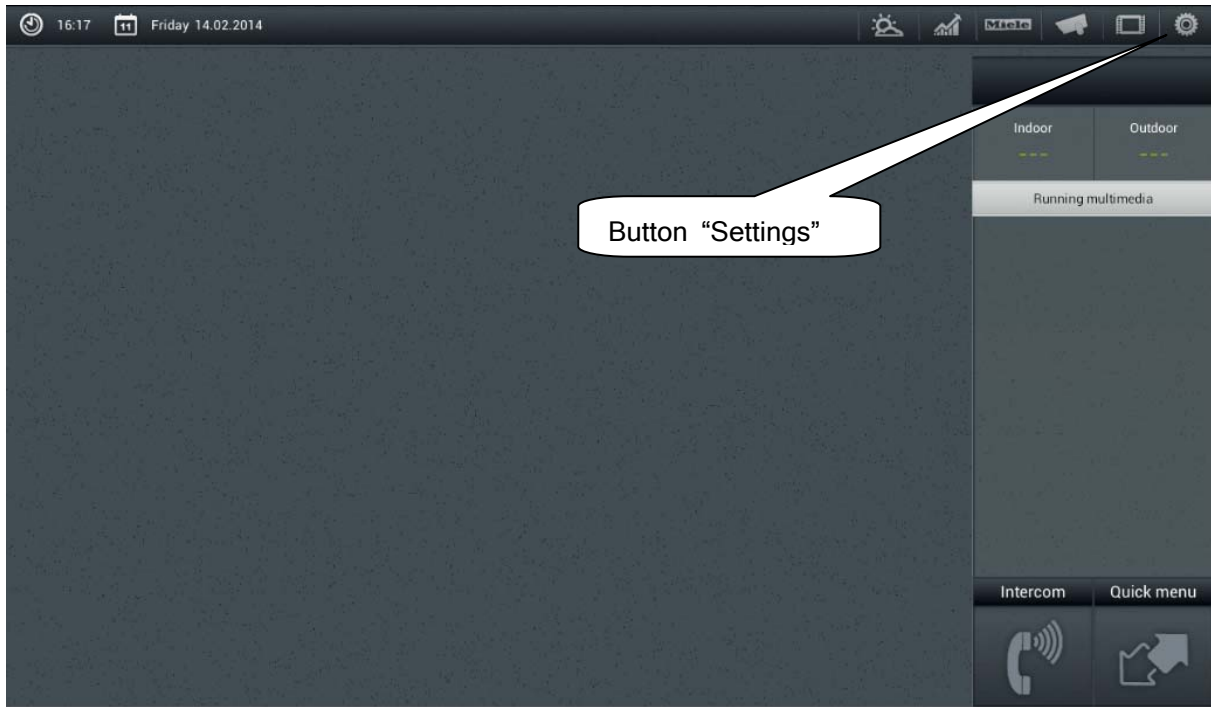


Figure 2 Settings

- a) The next step depends on whether you connect to IMM or Connection Server, or to a virtual server. The following figures anticipate connection to IMM or Connection Server. Select the button "server IP address" and a dialogue window displays for setting IP addresses. First add a new server by clicking the button "+" for adding servers. Then add an optional name and IP address of the server. Then enter the port – default is 8000. Click on add and tick this server. "OK" displays; click on it and confirm the changes. Window for setting the IP address of Figure 3.

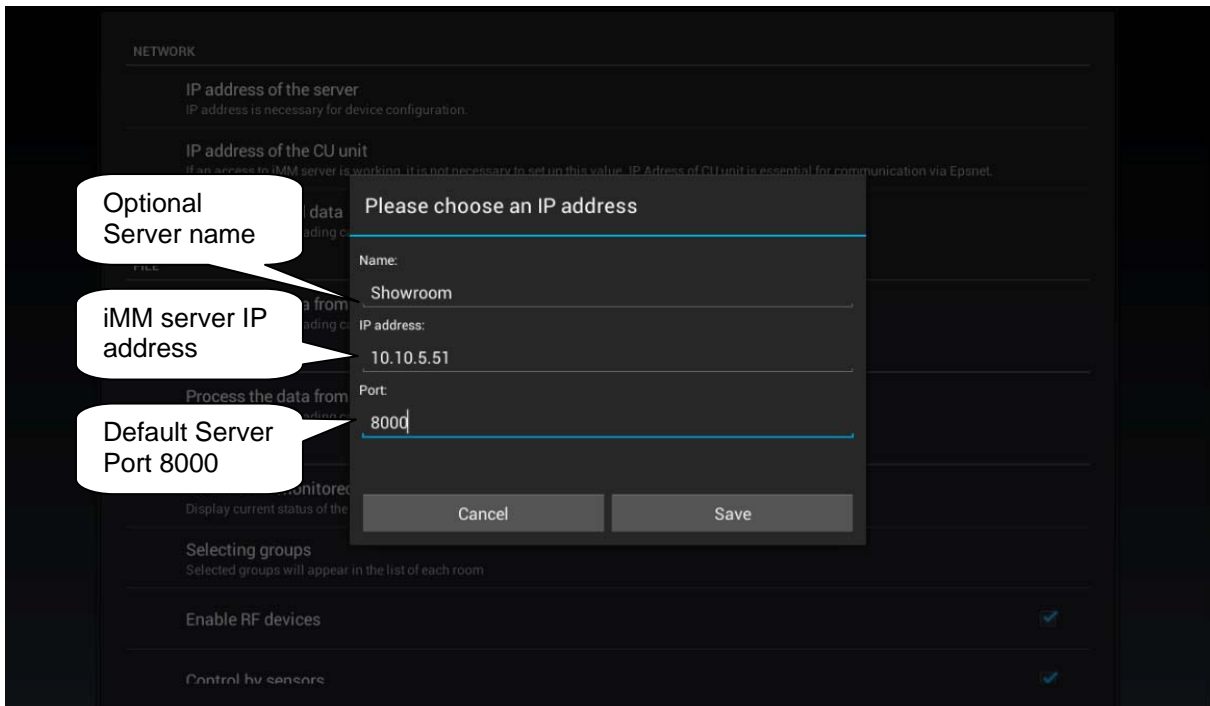


Figure 3 IP address of server

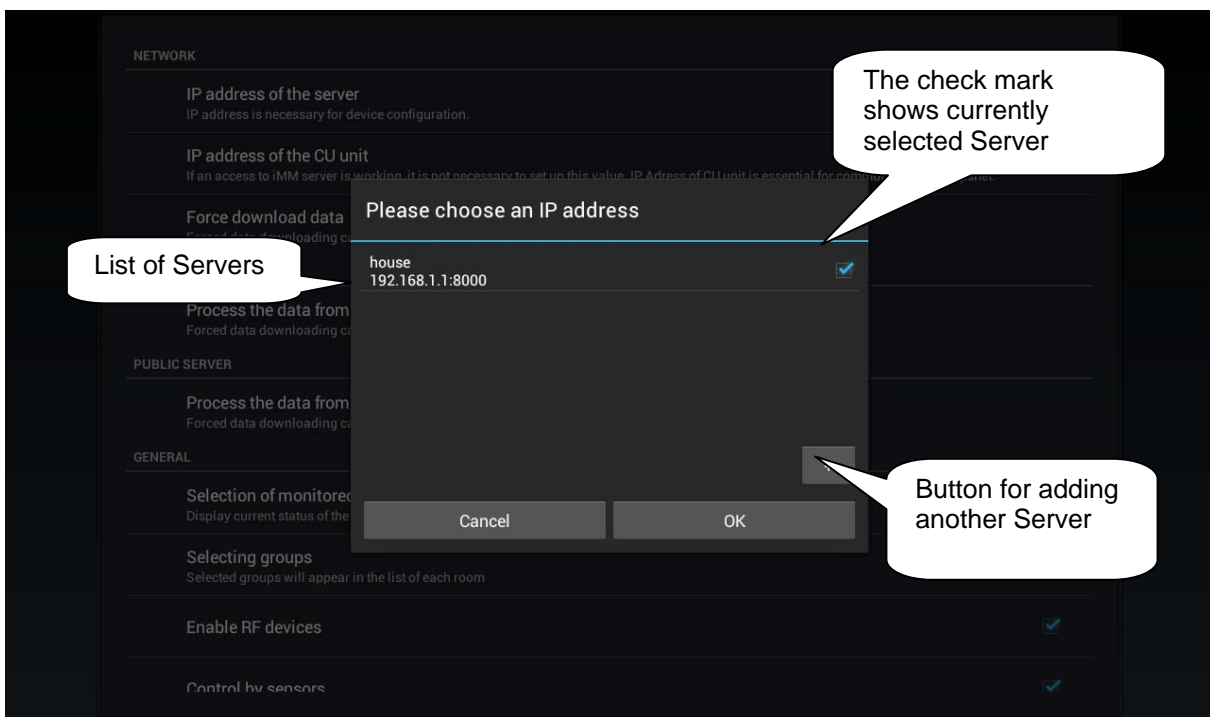


Figure 4 Selection of IP address of server

- a) The next step is **Enforce data download** (Figure 5). You will receive a notice saying that the new data will overwrite currently downloaded data even if enforcing the data download runs for the first time. Confirm by "OK". In virtual server, the button "Enforce data download" is not used, the button "Process data from file" is used instead. **iHC application can be run to control iNELS elements even without own iMM Server – read more in Chapter 7.**

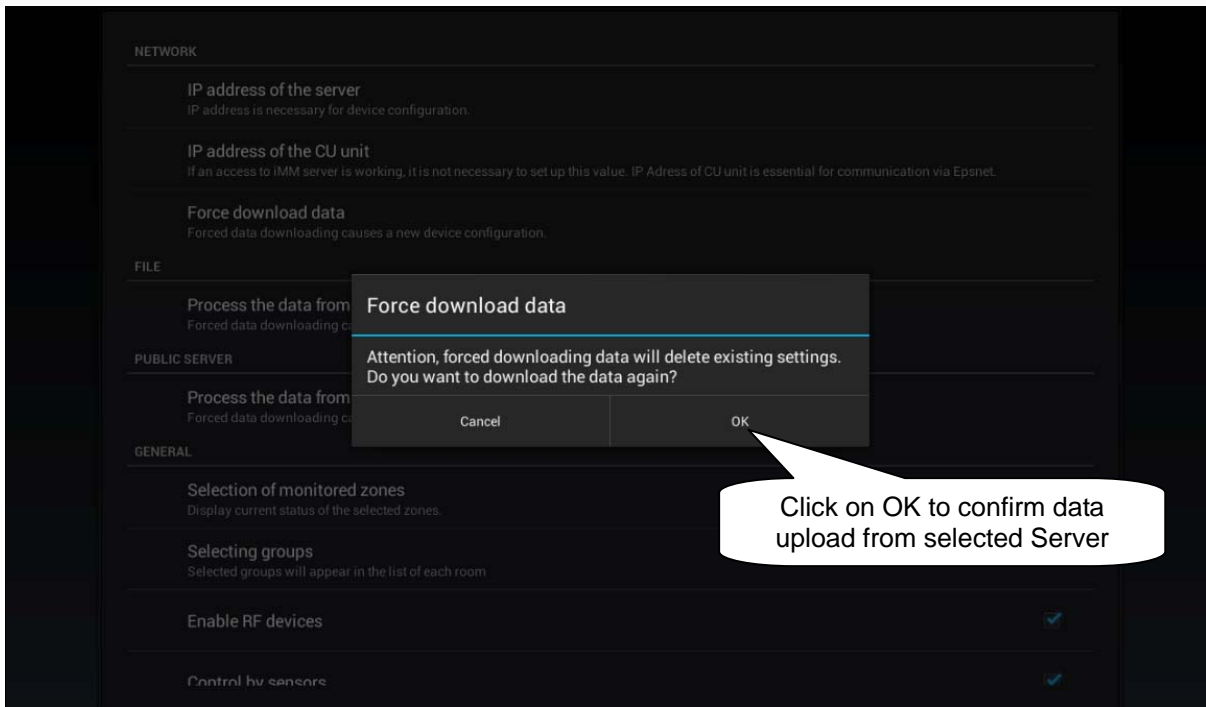


Figure 5 Enforce data download

- b) If you want to monitor connected Audio zones and Video zones in the application, you need to select these zones in the menu “Monitored zones” (Figure 6).

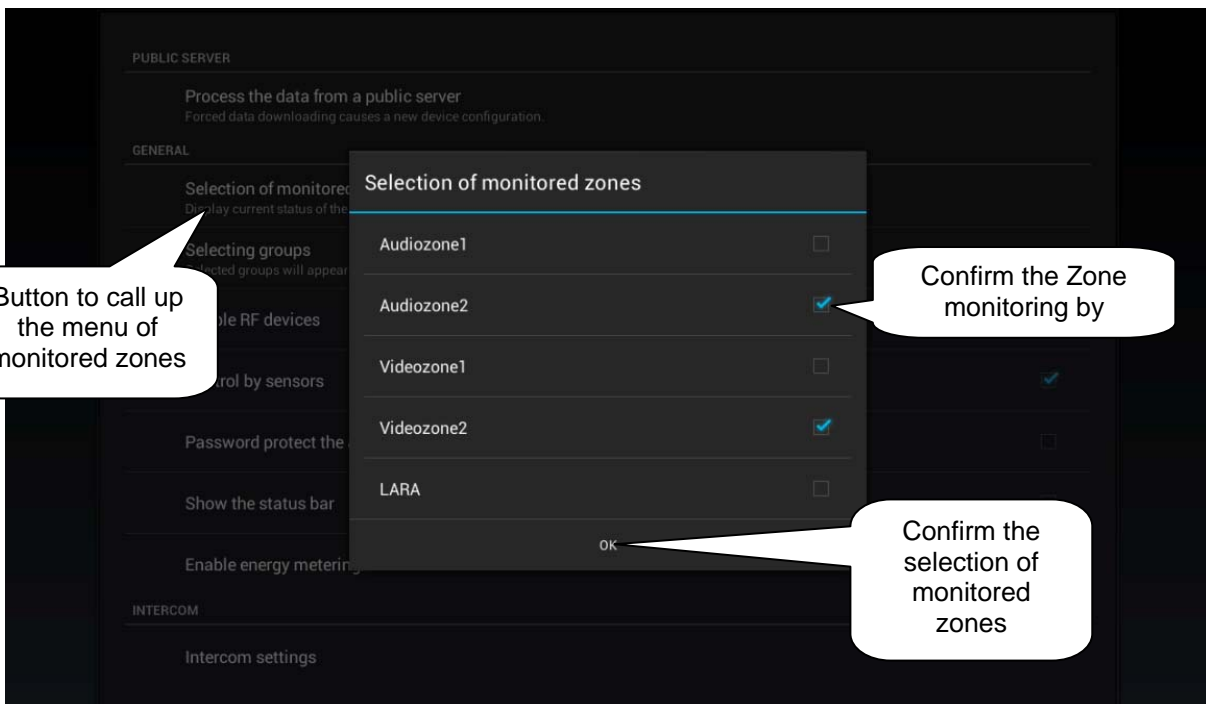


Figure 6 Monitored zones

- c) **Camera setting** – if you have IP cameras connected in the system, they will download together with other data. To display them you need to add camera icons in Settings (Figure 9). The icon will display in the main screen in the third line.
Note: The possibility of using cameras requires IMM or Connection Server.

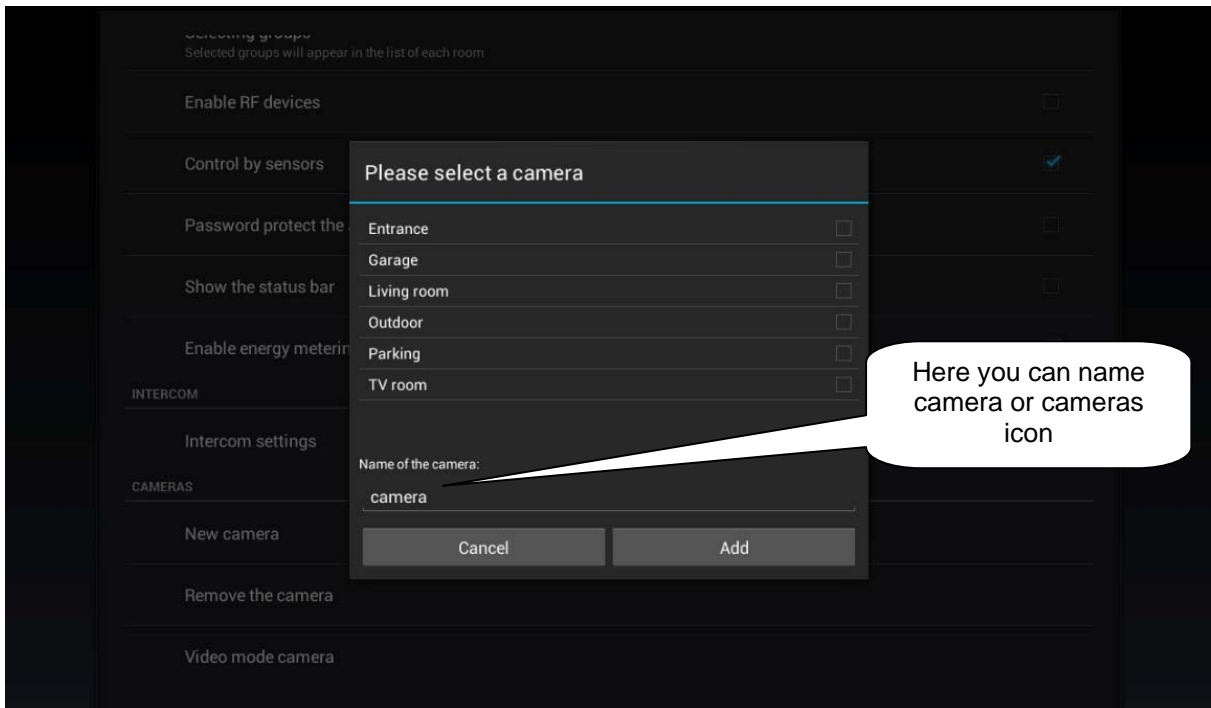


Figure 7 Adding icons for camera display

You can add upto 4 cameras under one Icon.

If you are in the camera display mode (Figure 8),long pressing of one of them will take you to the full screen mode. Using gestures you can control PTZ pan/tilt/zoom) of the camera as long as the given camera supports it, or display the control panel (Figure 9),and control the camera through the control panel.



Figure 8 Displaying cameras

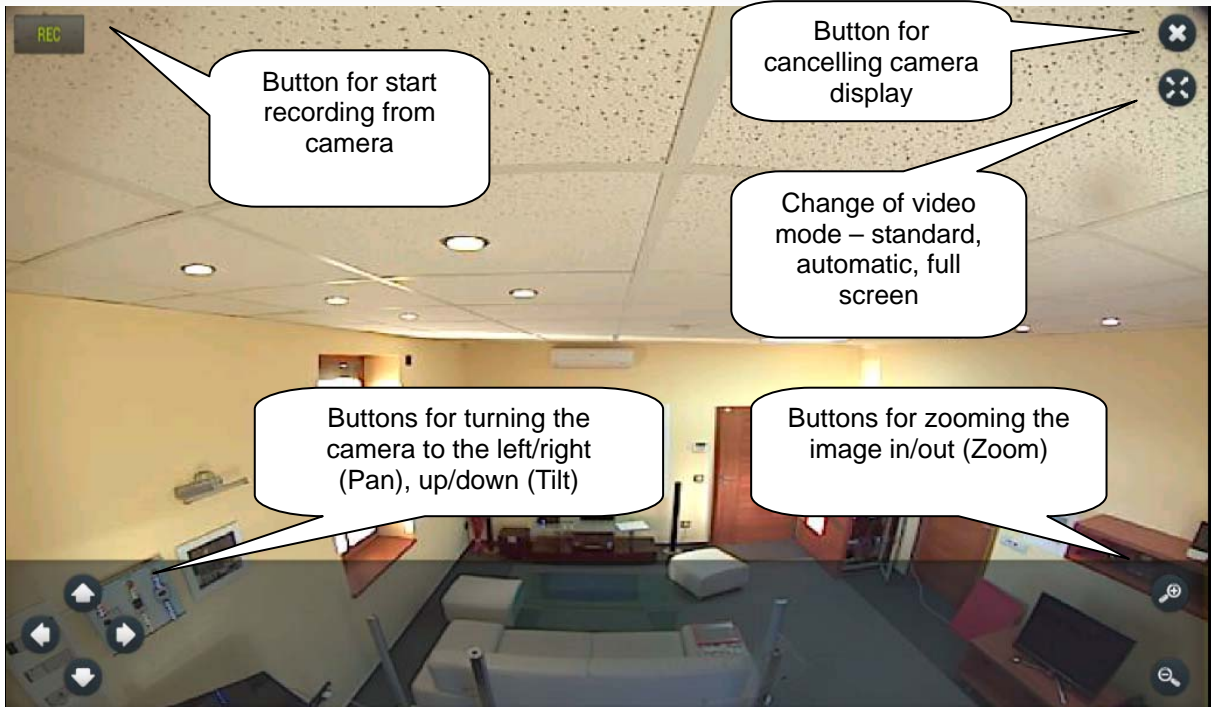


Figure 9 Controlling PTZ of cameras through SW panel

Camera image can be recorded from iMM Server. The record is saved in the Video/Cameras library where you can play it. The length of the record is limited by the size of the drive used in the iMM Server storage.

To remove the camera icon from the main menu, you need to choose the option "Remove" the camera icon (Figure 10).

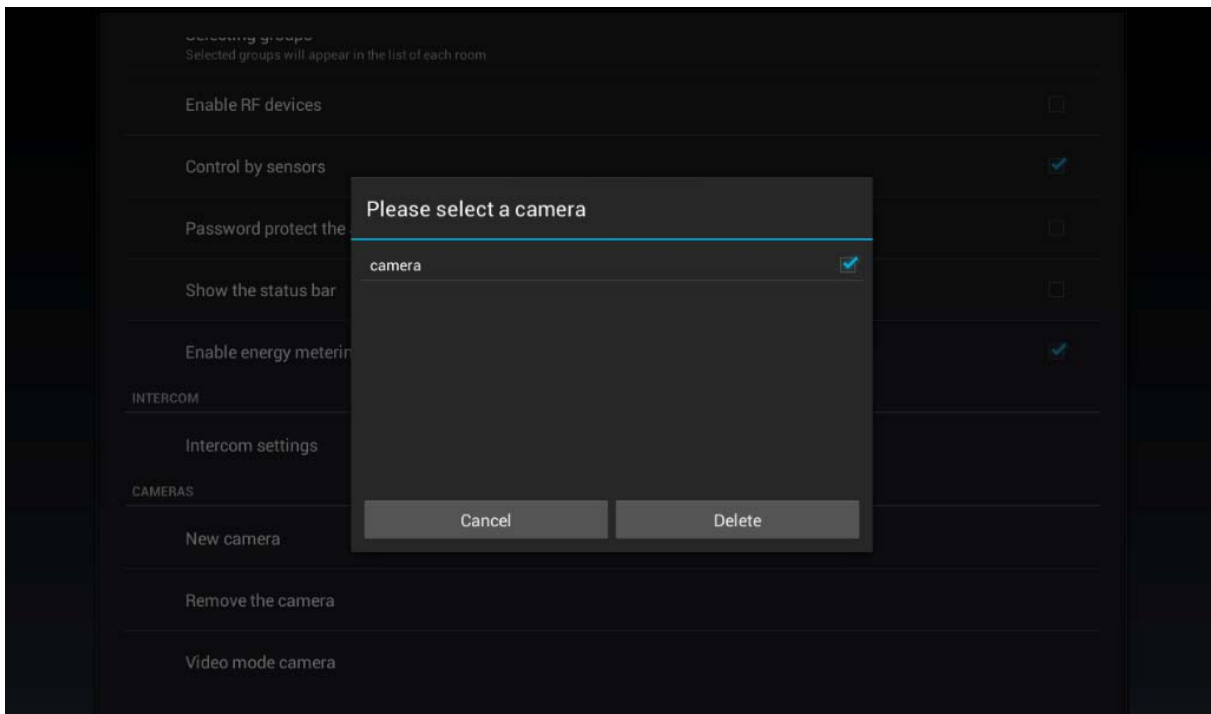


Figure 10 Remove camera icon

To set the camera video display mode, select the option "Camera video mode" and choose the desired mode.

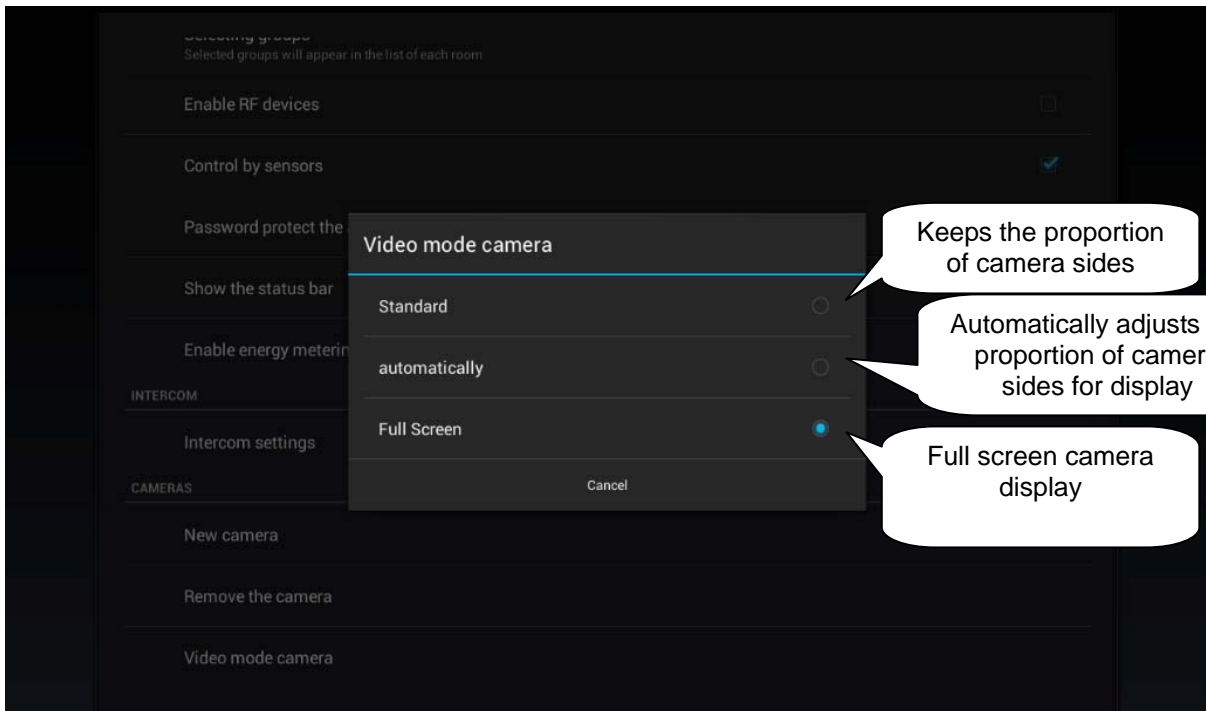


Figure 11 Selection of camera video mode

- d) **Selection of groups.** The order of groups can be changed using the drag and drop method - just drag the item icon by your finger, and place on the order you wish.

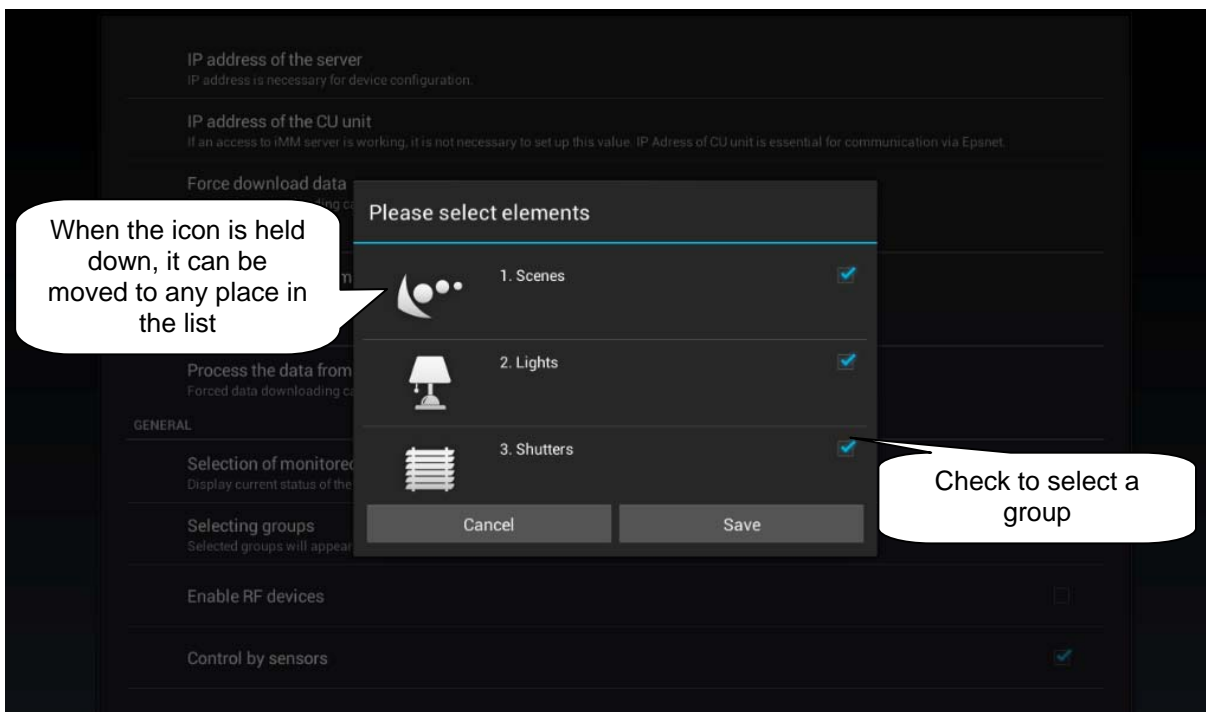


Figure 12 Selection of groups

e) Other application settings

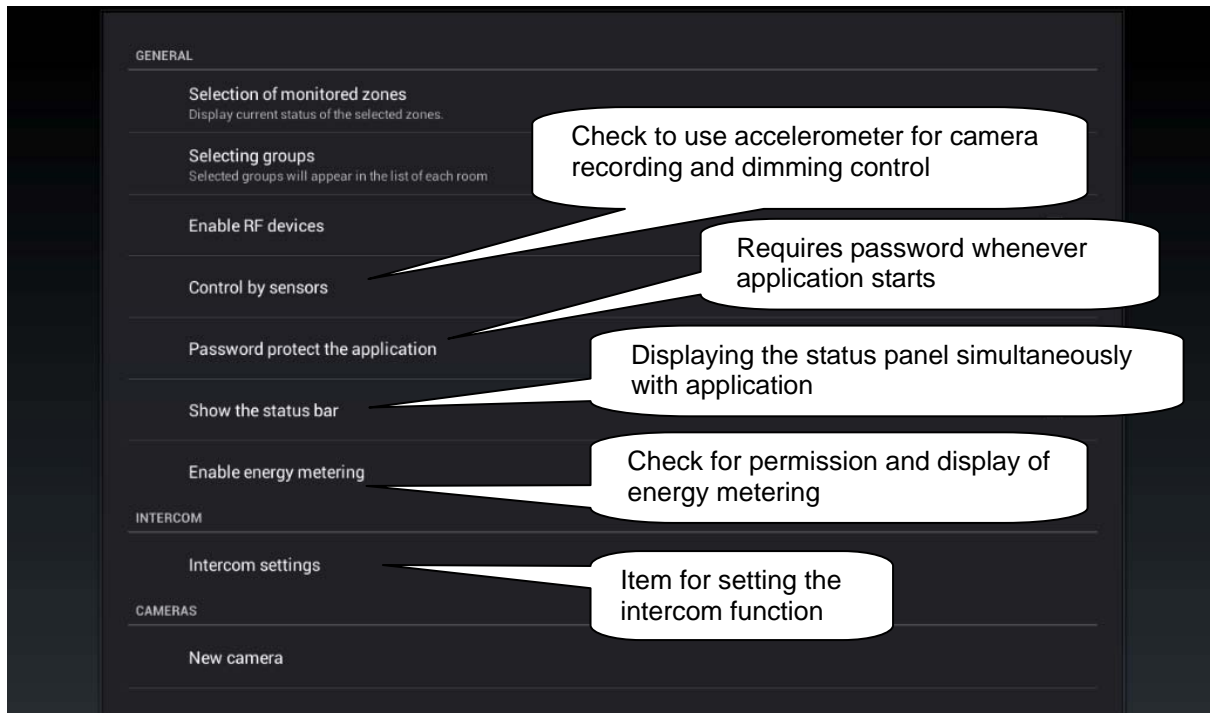


Figure 13 Other application settings

- f) **Protect application by password** – here you can enter your password entering of which the application will request at every opening.

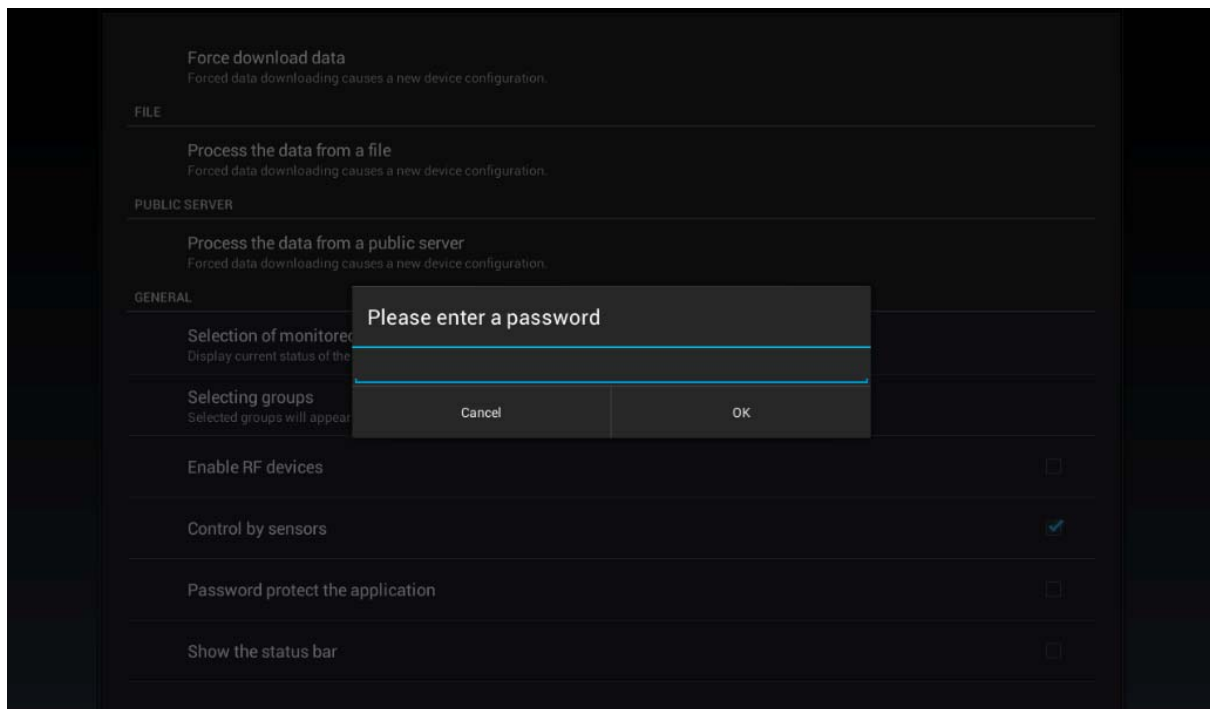


Figure 14 Entering application password

- g) **Setting the intercom function** – this function allows data communication between the house call boxes 2N, iHC applications and IMM applications (i.e. Video zones). iHC application can receive calls from another iHC application, IMM application and house call box 2N. Te communication is acoustic; if the call box is equipped with a camera, it also transfers the image. The application can also dial any of the above listed devices. Login name and password must be entered exactly as they were created in the IMM or Connection Server accounts. Small and capital letters are distinguished.

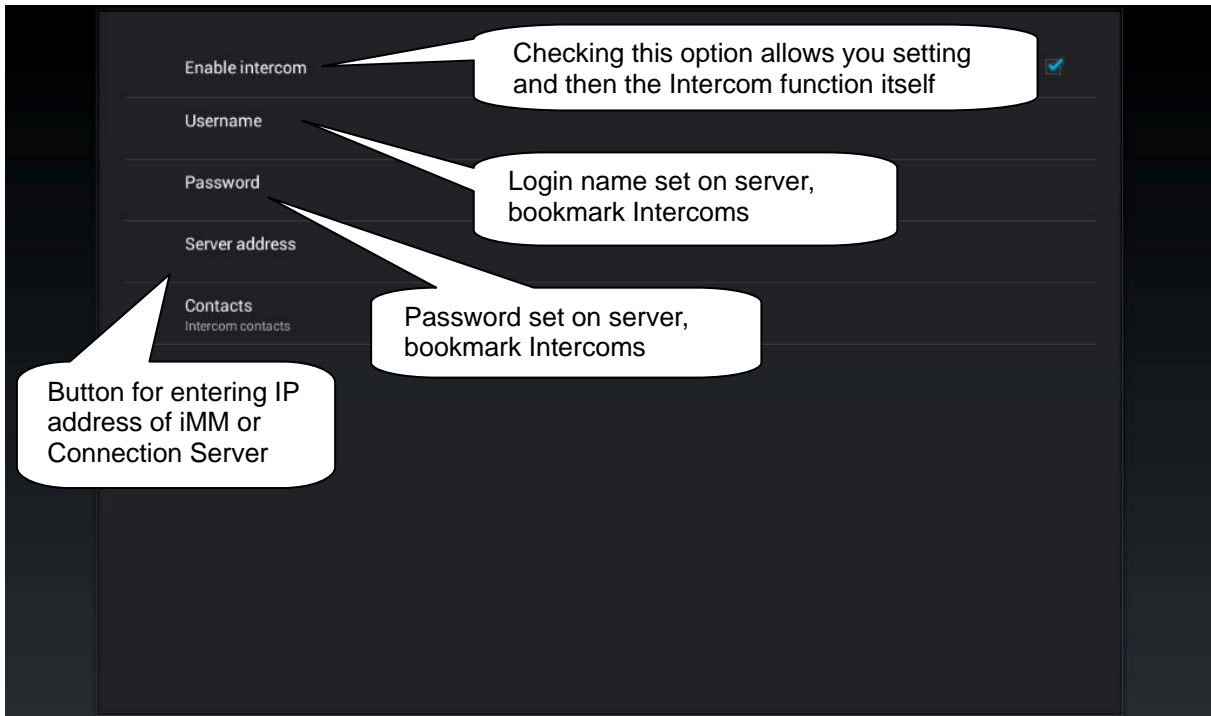


Figure 15 Intercom settings

4. Application control

a) Tiles

Fundamental way of displaying the iHC-TA application is the so-called “Tiles”. It is a backlit overview of elements where we can see at first sight by backlit or non-backlit icons which elements of the INELS bus electroinstallation are active and inactive, as well as other Tiles for controlling integrated devices, e.g. Multimedia, Miele, Intercom, Energy, etc.

If you wish to go from the Tiles display to the List display (Fast menu), just click on the name of the Fast menu icon that is used for switching between these displays.



Figure 16 Main screen

1. Dimming icon, holding you finger on the icon will call up a slider for dimming control.
2. Selection of room
3. Displaying the indoor temperature from a selected thermal sensor
4. Displaying the outdoor temperature from a selected thermal sensor
5. The Heat Control icon enables controlling and switching between preset heating programs.
6. Settings icon
7. Multimedia control – Video zones and Audio zones
8. Camera icon for monitoring video of connected up to nine IP cameras
9. Control of Miele household appliances
10. Energy Metering icon for energy consumption visualisation
11. GIOM3000 Meteostation icon for visualisation of meteorological quantities
12. Analogue exciters for displaying data from Meteostation, e.g. type of Clima sensor
13. The menu scrolls up or down if there are multiple zones
14. Information on currently played Multimedia in the Zone
15. Switching off and on of the Zone, including devices connected to it
16. Tiles for controlling the set Scene
17. Icon for controlling IP call box - dialling and setting of contacts

18. Change to Fast menu

You can also move by dragging your finger in the line in the direction you want to follow.

b) List (Fast menu)

- List "Scenes" is used to activate user pre-defined scenes, such as "All off", "All on", "All shutters up", "All shutters down", etc.
- The "Lights" list serves for controlling individual lights or entire lighting installations. There are two display options. Classical, where you have the simple on / off displayed by an off indicator lamp, or Dimming, where the level of illumination is indicated by an analogue exciter. Dimming is controlled by a slider that can be slid by finger, or using an accelerometer.
- In the bookmark "Shutters" you can easily see and control the shutters, garage doors, gates, etc.
- In the "Info" list you can monitor both the indoor and outdoor temperatures, as well as other information from the system, such as the HDO signal.
- In the "Other" bookmark you can easily see and control individual electronic systems that form a part of the iNELS electroinstallation, e.g. control of the watering system, control of different appliances, and the like.



Figure 17 Fast menu screen (List)

c) Miele

This part of the application allows remote administration of the Miele house appliances which are connected to the Miele@Home network by means of communication modules. The communication between the appliances and the Miele Gateway communication interface runs on powerline. Miele Gateway then transfers this powerline communication to the ethernet network. To translate this protocol you need to use iMM or Connection Server.

Miele appliances can be monitored in terms of statuses of the appliances and also some of their functions whilst safety is taken into consideration, and therefore you cannot for instance turn on the induction board. An interesting option is activation of remote starts.

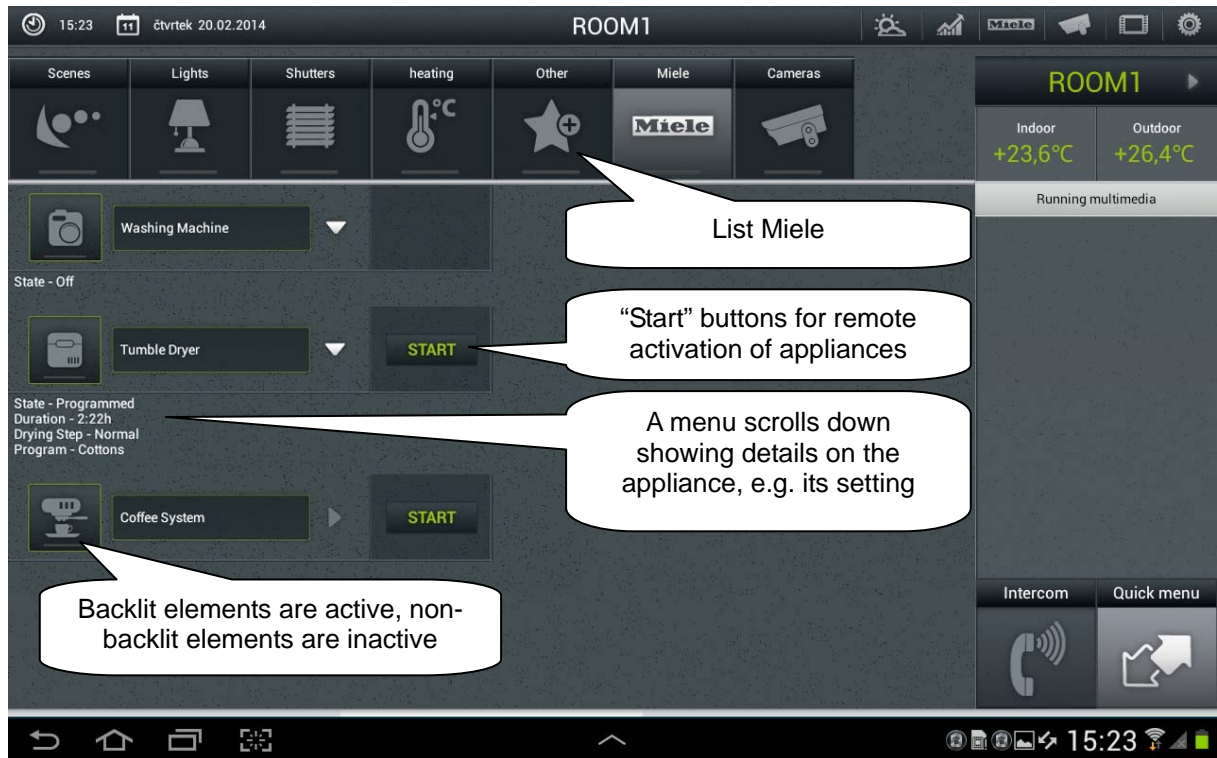


Figure 18 Screen List of Miele appliances

d) Cameras

Using the “Cameras” List you can watch the image from IP cameras, control PTZ cameras and record the image from any camera you want. The iNELS system supports connection of up to 9 IP cameras.

Full screen displaying an image from any camera is called up by pressing relevant camera view. Calling up the panel for PZ control (pan, tilt, zoom) is then achieved by pressing the camera image.

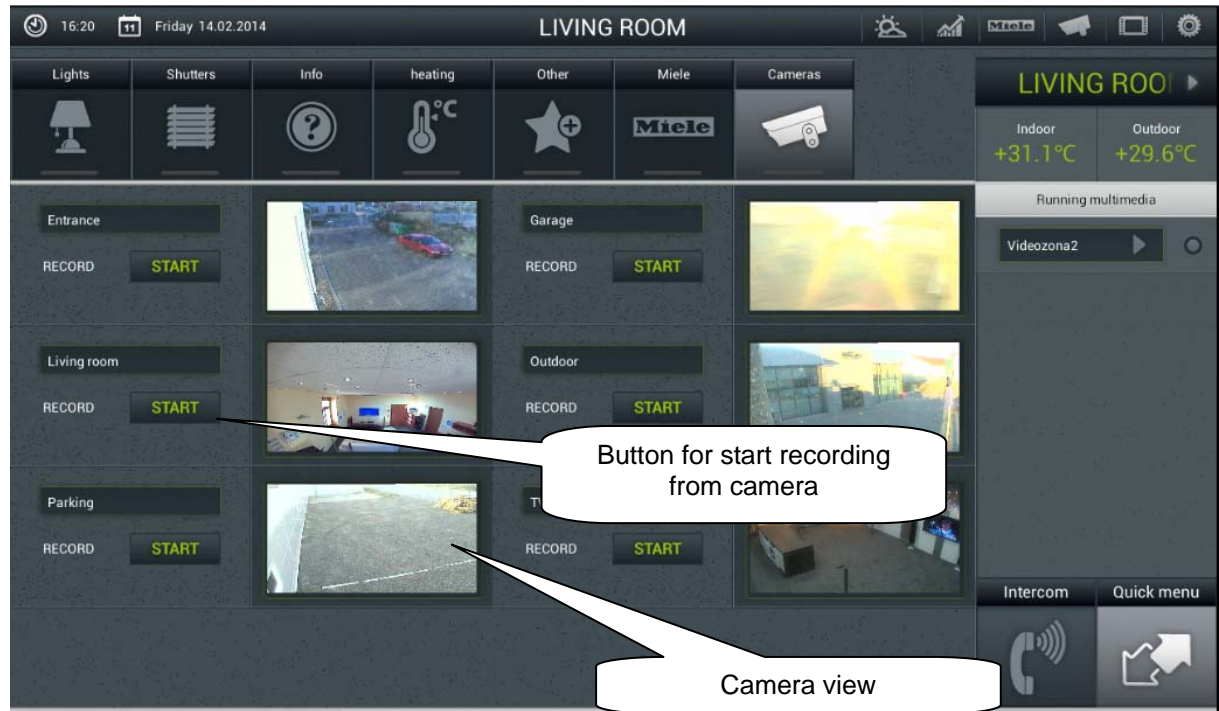


Figure 19 Screen List of cameras

e) Air conditioning and recuperation

Controlling the air conditioning units is bi-directional, so you can fully utilise the features of your air conditioning, such as control of blowing speed, movement of lamellas or control of modes, such as plasma. Whilst controlling recuperations, you can select the way of air exchange, rotation speed of ventilators, temperature, or set periodical air exchange.

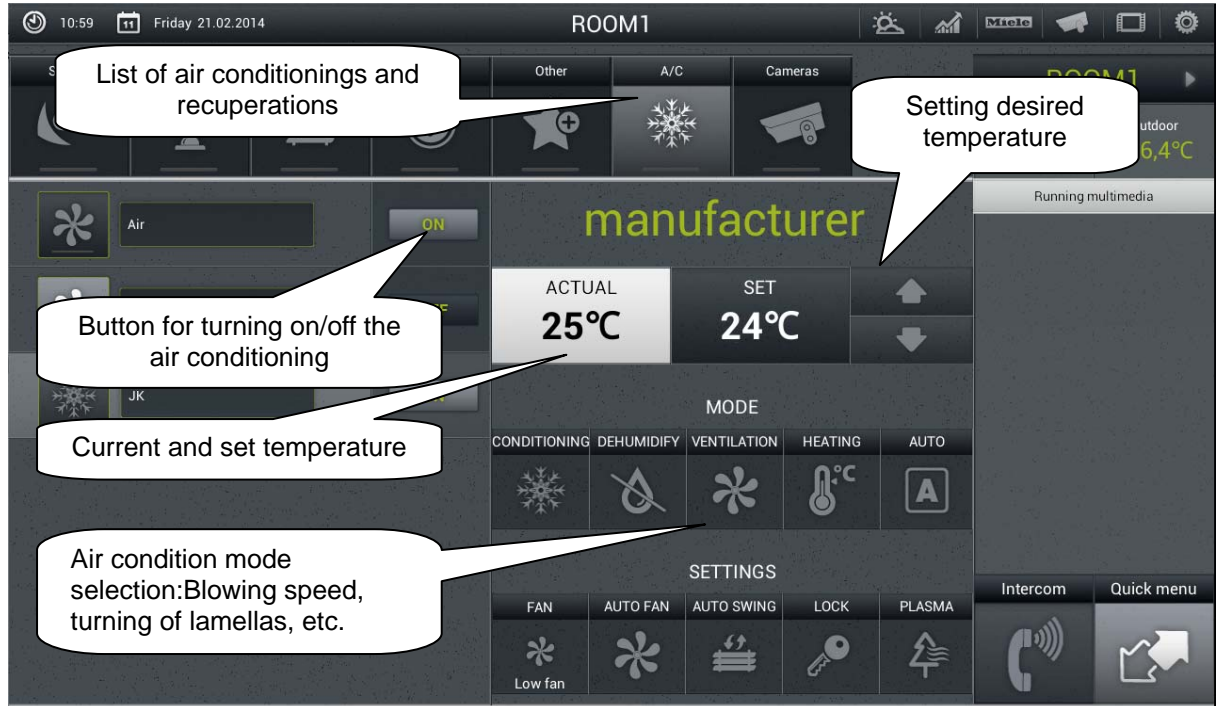


Figure 20 Screen Air conditioning and recuperation (LG Air conditioning)

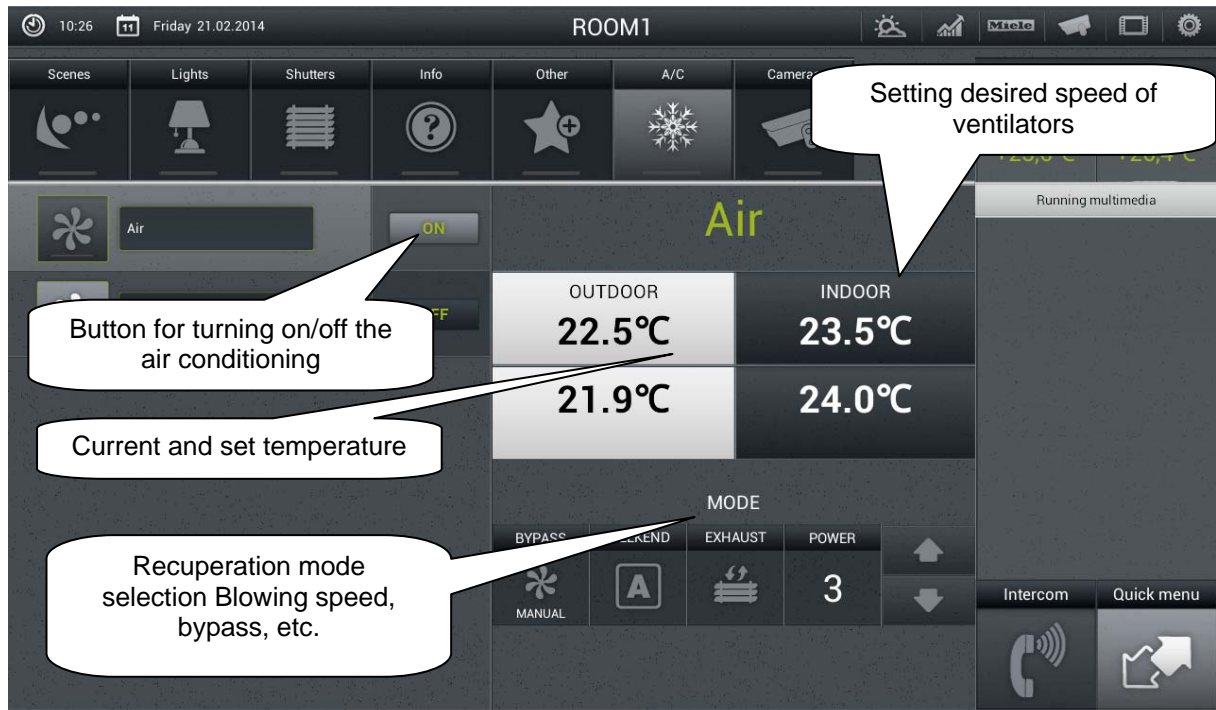


Figure 21 Screen Air conditioning and recuperation (AirPohoda recuperation)

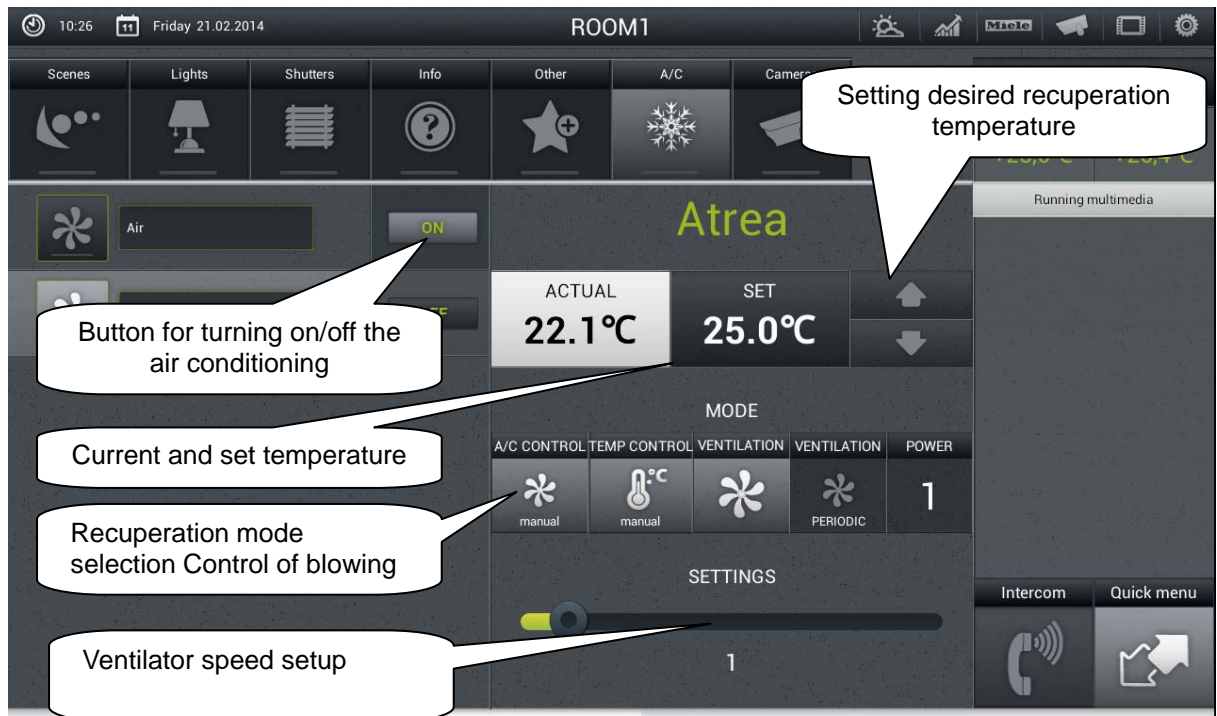


Figure 22 Screen Air conditioning and recuperation (Atrea recuperation)

f) Multimedia

Multimedia can only be controlled when IMM Client/Server is incorporated in the system. IMM Client/Server may serve as Video zone (for playing music, movies, viewing photographs or playing television), and further allows the use of Audio zones, e.g. IMM Audio Zone (AZ-R) or LARA iNELS Multimedia, the audio of which can be controlled.

The entire Zone and any device connected to it can be switched off/on by clicking on the Zone name. Active Zone is marked in white letters; deactivated Zone is red.



Figure 23 Screen Multimedia

g) IP call box

In the IP call box screen you can create contacts for calling by means of SIP protocol. It allows us to connect to other iHC devices, iMM Video zones and also to IP intercom from the company 2N. If a call is received from IP intercom with a camera (and RTSP system support), also the image from the camera displays.



Figure 24 IP call box List of contacts

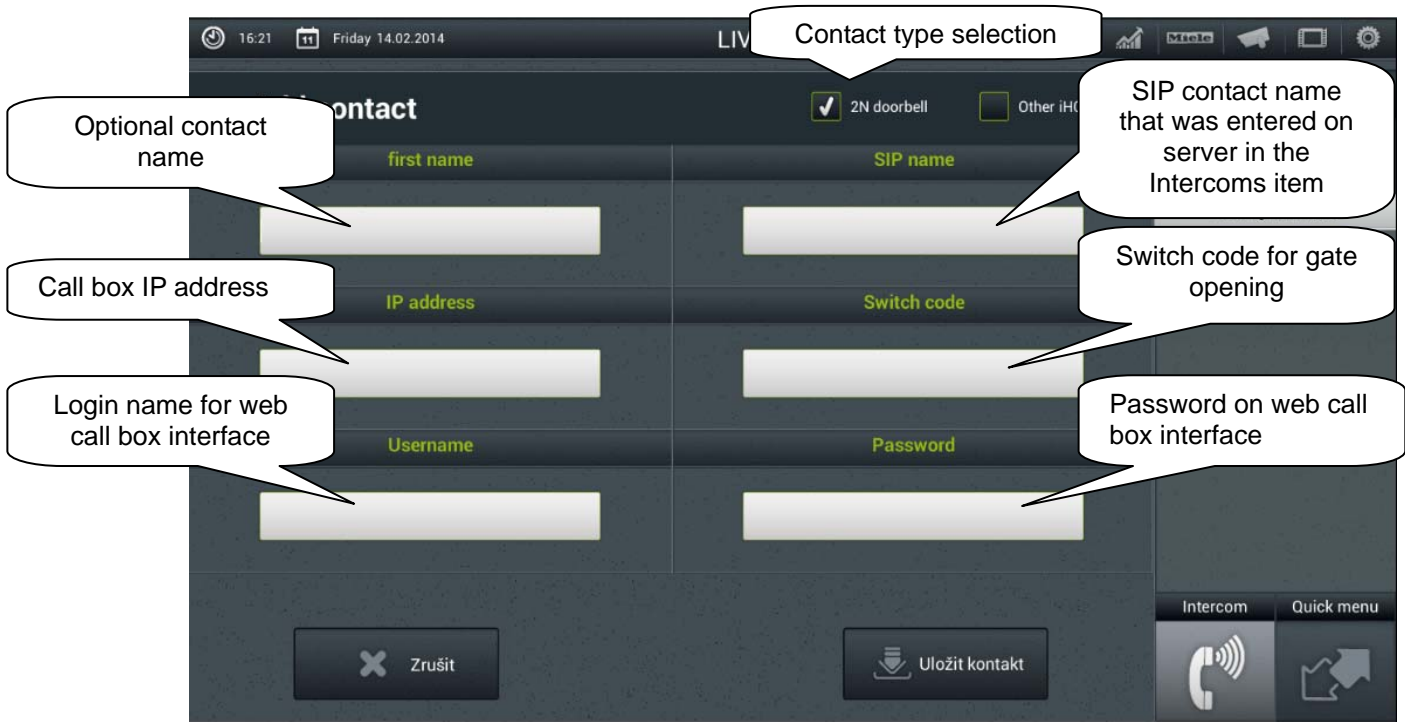


Figure 25 IP call box Adding a contact

h) GIOM3000 Meteostation

GIOM3000 is visualising meteostation with an ethernet output and, within the iHC-TA application, it provides us with information on the following nine meteorological quantities:

- 1) Wind speed
- 2) Pressure
- 3) Wind direction
- 4) Temperature
- 5) Windchill
- 6) Dew point
- 7) Barometric altitude
- 8) Relative humidity
- 9) Absolute humidity



Figure 26 GIOM3000 Meteostation screen

i) Energy metering

The iNELS system enables measurement of consumption of gas, electricity or water, whilst you need a meter with impulse output to every energy. These impulses are scanned on binary output units and, by means of counters, the amount of consumed energy is evaluated.

Energy consumption can be displayed in unit, e.g. kWh, or at price value, e.g. CZK. The application facilitates to display a consumption graph for every period that is optionally set by you.

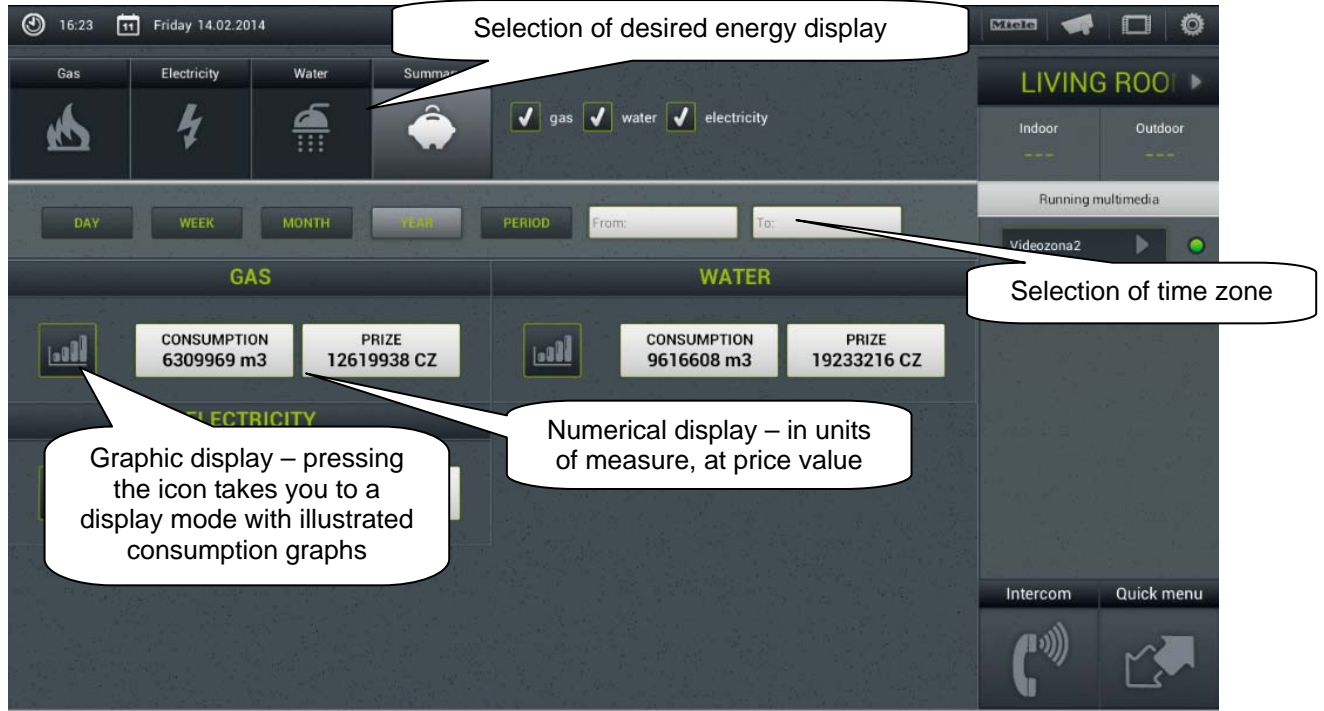


Figure 27 Energy Meter numerical display screen



Figure 28 Energy Meter graphic display screen

5. Configuration of Rooms

Items are configured in IMM Control Center (the “iMM CC” hereinafter) in the bookmark Rooms.

In Rooms you can create any number of virtual groups (Rooms) where you add optional Items and Zones.

- Items – created on the basis exported file “export.pub” from iDM software (see separate manual)
- Zones – created on the basis of IMM Server configuration

New room

Name: Room3

Protect by password

Password: *

Confirm: *

Add

global	Edit		
ROOM1	Edit	Set password	Remove
ROOM2	Edit	Set password	Remove






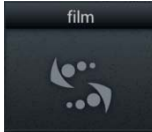



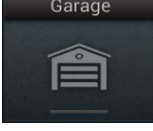





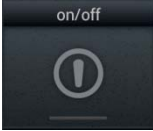
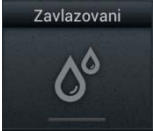
Callouts:

- Name of new Rooms
- Tick if you wish to protect the control given by Room password
- Password and confirmation. Note: Only one asterisk displays at a time
- Editing of respective Room
- Removal of respective Room

6. Item description

There are 3 types of items:

- 1) Simple Items for switching in the ON/OFF manner.
- 2) Items for iNELS item dimming (can be used also as ON/OFF by simple pressing, holding down a slider displays for dimming mode).
- 3) Other Items serve e.g. to display data from meteostation or control air conditioning.

	Simple 2-status icon		Dimmable icon		Special icon
Airing		Blank		Weather station	
Air-conditioning		Lamp		Scene	
Dehumidify		Light		Shutters	
Garage				Indoor thermometer	
Gate				Outdoor thermometer	
Heating				Heat Control	
On/Off					
Sprinkling					

Air Conditioning

Icon for controlling the air conditioning units. When this icon is selected, only LG. air conditioning icons are filtered out that are defined in the bookmark "Clims".

The screenshot shows a configuration table for the 'air conditioning' icon type. The table has columns for 'Name', 'Row', 'Column', and 'Attributes'. The 'Name' column contains 'LG_Dolni' and 'LG_horni'. The 'Row' column contains '2'. The 'Attributes' column contains 'type' (set to 'menu') and 'read_only' (set to 'no').

Callouts provide the following information:

- Selected icon type:** Points to the 'air conditioning' dropdown in the 'Type' column.
- Selection of air conditioning defined in bookmark Clims:** Points to the 'LG_Dolni' dropdown in the 'Name' column.
- Selection of air conditioning control:** Points to the 'menu' dropdown in the 'Attributes' column.
- Line selection:** Points to the 'LG_Dolni' row in the 'Name' column.
- Column selection Selection of:** Points to the '2' dropdown in the 'Row' column.
- If you select "yes", the icon will be read-only, i.e. it will display its status but cannot be controlled in any manner whatsoever.** Points to the 'no' dropdown in the 'read_only' attribute.
- Confirmation of adding an Item:** Points to the 'Add' button.

Heat control

The Heat Control icon enables controlling and switching between preset temperature programs from iDM. Long press allows you to switch between MAN and AUTO modes. If the heating circuit is closed, the icon is backlit.

The screenshot shows the configuration for the 'heat control' icon. The icon name is 'heat control' and the number '3' is displayed next to it. The configuration fields are:

- stateth:** Showroom_StateTH (Variable from iDM that return currently preset heating program)
- therm:** SOPHY2_TERM (Temperature input/Thermal sensor)
- rele:** sa04_rs_2_Vytapeni (Relay controlling given heating circuit)
- read_only:** no

Meteostation

Displaying values from AD converter

Type	Name	Row	Column	Attributes
meteostation	Vitr	2		inels ADC2_40M_AI1
Coefficients, calculation below				koef_mult 0.004
Maximum displayed value				koef_add 0
Minimum displayed value				max_disp 40
Number of decimal places				min_disp 0
				decimal_digits 1
Displayed units				units m/s

Calculation of coefficients is based on the equation $d=a*v+b$, where
 d – is the displayed value
 a – is the sought for multiplier “koef_mult”
 v – value sent by the central unit (0-10 V) multiplied by thousand
 b – value “koef_add” by which the final value is displaced.

General procedure:

It has to be defined what range the quantity will reach, in our case 40 will be the upper limit (max_disp), and 0 the lower limit (min_disp). Place these values into 2 equations with 2 unknowns. Result of this equation is coefficient multiplier (koef_mult) and also coefficient addition (koef_add). Put the values in the table.

Example: If you wish to display value 0 to 10 sent from the central unit in internal 0 to 40 m/s, the procedure is as follows:

For:

The below equation applies:

max_disp=40

max_disp = koef_mult*10*1000 + koef_add

min_disp=0

min_disp = koef_mult*0*1000 + koef_add

Since there is no request for displacement of displayed values (this request might occur in case of outdoor temperature measuring where also negative temperature value occur), the coefficient will be koef_add=0.

It means that:

$40 = koef_mult*10*1000 + 0$

$40 = koef_mult*10000$

$koef_mult = 0,004$

Scene

By the “Scene” icon you can control multiple iNELS items at once by just a single press. Scenes can be created by addition of individual outputs to the list using the “Add” button. Scenes should contain output channels with ON/OFF/TRIG symptom.

More complex scenes should be created directly in iDM environment, and only given event should be called up there.

The screenshot shows a configuration form for a scene. It has columns for Type, Name, Row Column, and Attributes. The Type is set to 'scene', Name to 'Lamp', and Row Column to '6'. The Attributes list contains three items: 'da22_rs_stmivana_zasuvka_lampa_OFF', 'da22_rs_stmivane_osvetleni_halogeny_ON', and 'sa02_rs_zamek_vstupni_dvere_OFF'. An 'Add' button is visible below the list. Callouts include: 'For scenes, select iNELS items with suffixes _ON, _OFF and _TRIG' pointing to the attribute list; and 'Button for adding another item in the scene' pointing to the 'Add' button.

Shutters

Icon adapted to control motors, majority of blinds or shutters where relay can be chosen separately for every direction. The icon then automatically switches the direction (relay) if you click on the icon in the below format: up-stop-down-stop-up...

The screenshot shows a configuration form for shutters. It has columns for Type, Name, Row Column, and Attributes. The Type is set to 'shutters', Name to 'Shutters', and Row Column to '1'. The Attributes list contains 'up sa04_rs_1_zaluzie_nahoru', 'down sa04_rs_1_zaluzie_dolu', and 'read_only no'. An 'Add' button is visible below the list. Callouts include: 'Switching element for direction up' pointing to the 'up' attribute; and 'Switching element for direction down' pointing to the 'down' attribute.

Thermometer

For displaying indoor/outdoor temperatures in the side panel of the iHC-TA application.

The screenshot shows a configuration form for a thermometer. It has columns for Type, Name, Row Column, and Attributes. The Type is set to 'thermometer', Name to 'TERM1', and Row Column to '1'. The Attributes list contains 'placement indoor' and 'inels IDRT2 indoor'. An 'Add' button is visible below the list. Callouts include: 'Selection of placing the sensor Indoors/Outdoors' pointing to the 'placement' dropdown; and 'Heating input/Thermal sensor selection' pointing to the 'inels' dropdown.

Zone

This icon can only be added if IMM superstructure (iNELS Multimedia) is used. All zones you wish to control from a given room on your phone have to be defined underneath this icon.

The screenshot shows a configuration interface with the following elements:

- Type:** A dropdown menu currently set to "zone".
- Add:** A button located below the Type dropdown.
- Name:** A dropdown menu with a list of options: Audiozone1, Audiozone2, Meteo, Videozona 3, and Videozone 5. "Audiozone1" is currently selected.
- Row Column:** A dropdown menu set to "1" and an empty input field.
- Attribute:** Two dropdown menus labeled "audio" and "video", both set to "yes".

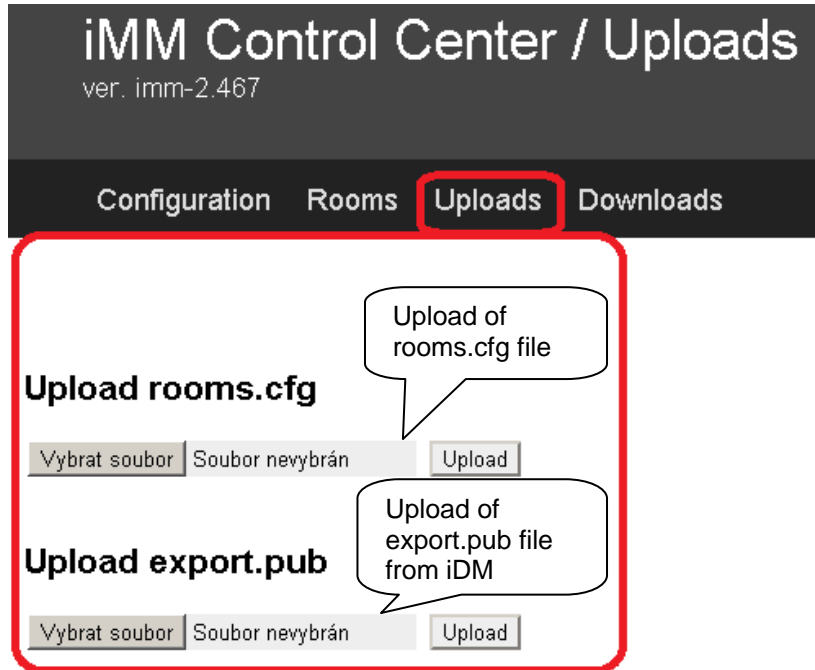
Callouts provide additional information:

- A callout pointing to the "Add" button says: "Selection of Zones defined in bookmark Zone".
- A callout pointing to the "audio" attribute dropdown says: "Will the zone play music?".
- A callout pointing to the "video" attribute dropdown says: "Will the zone play video?".

7. iHC application setting without own iMM Server

a) File-based application configuration

On public iMM Server <http://217.197.144.56:8080/> you can generate **rooms.cfg** based on imported **export.pub** from your **iDM**.



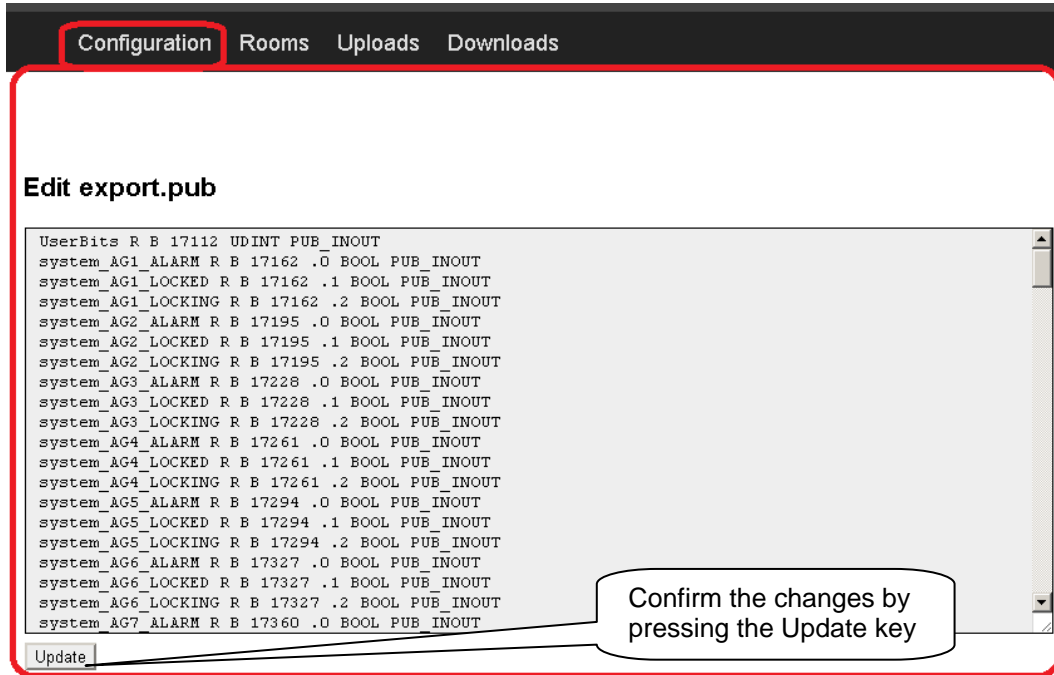
First option **Upload rooms.cfg** serves in later setting stages to record an already created file **rooms.cfg** and its subsequent editing.

Second option **Upload export.pub** always has to be filled in with current file **export.pub**

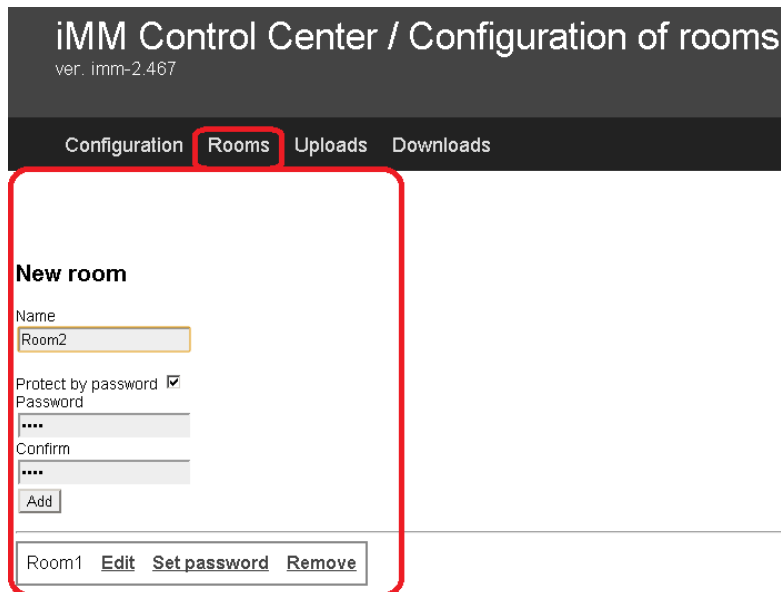
Subsequent editing can use also the „ID“ option that is created on the first access to public server, and that uploads the last known setting after being added to the respective column in the bookmark „Log in“. **After the first logging in, write down your ID for another service from another PC, or just in case the cookies get deleted from your browser!**

Note: for working on public server you need to have cookies enabled in your browser.

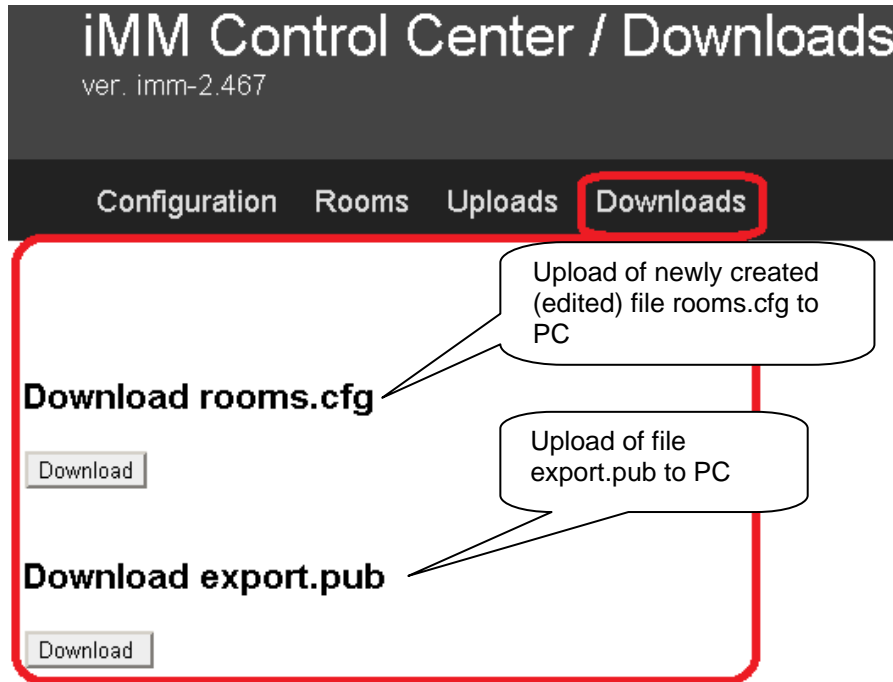
In the bookmark **Configuration** you can edit iNELS elements from the file **export.pub**; changes must be uploaded using the "Update" button located under the dialogue window.



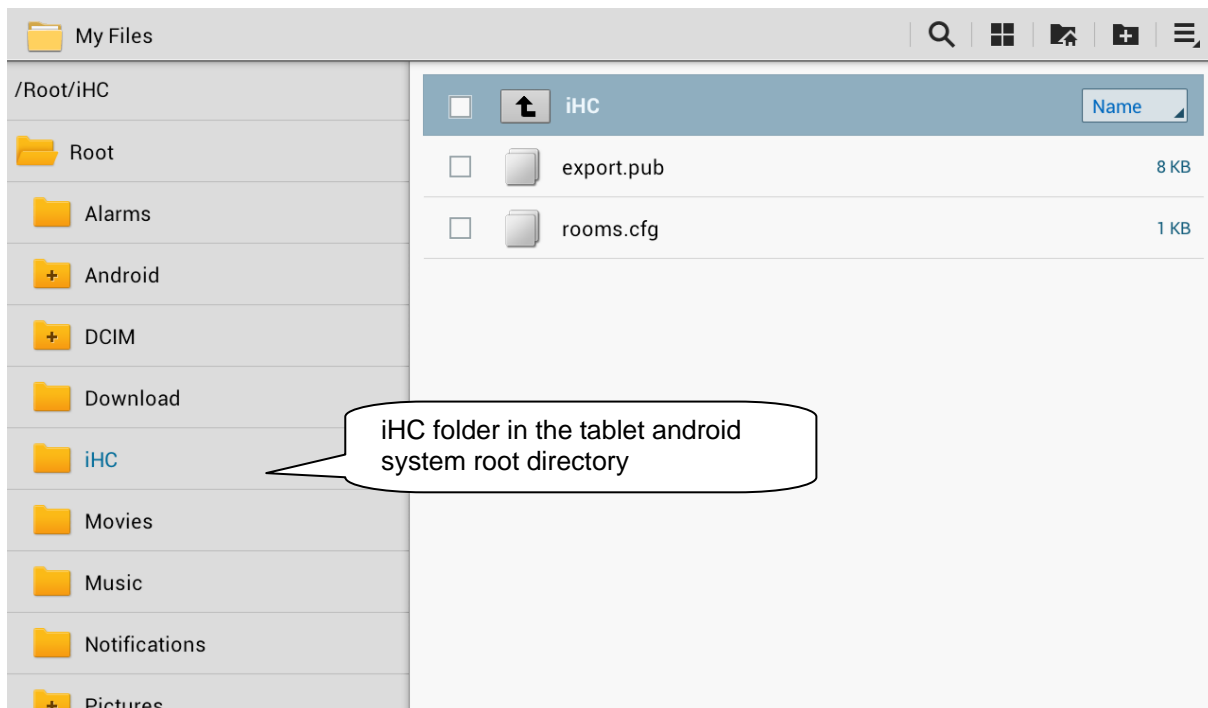
Bookmark **Rooms** is identical with the bookmark Rooms from the classical IMM CC (see Chapter 5). The only difference is in entering the password that is only numerical, and multiple asterisks display.



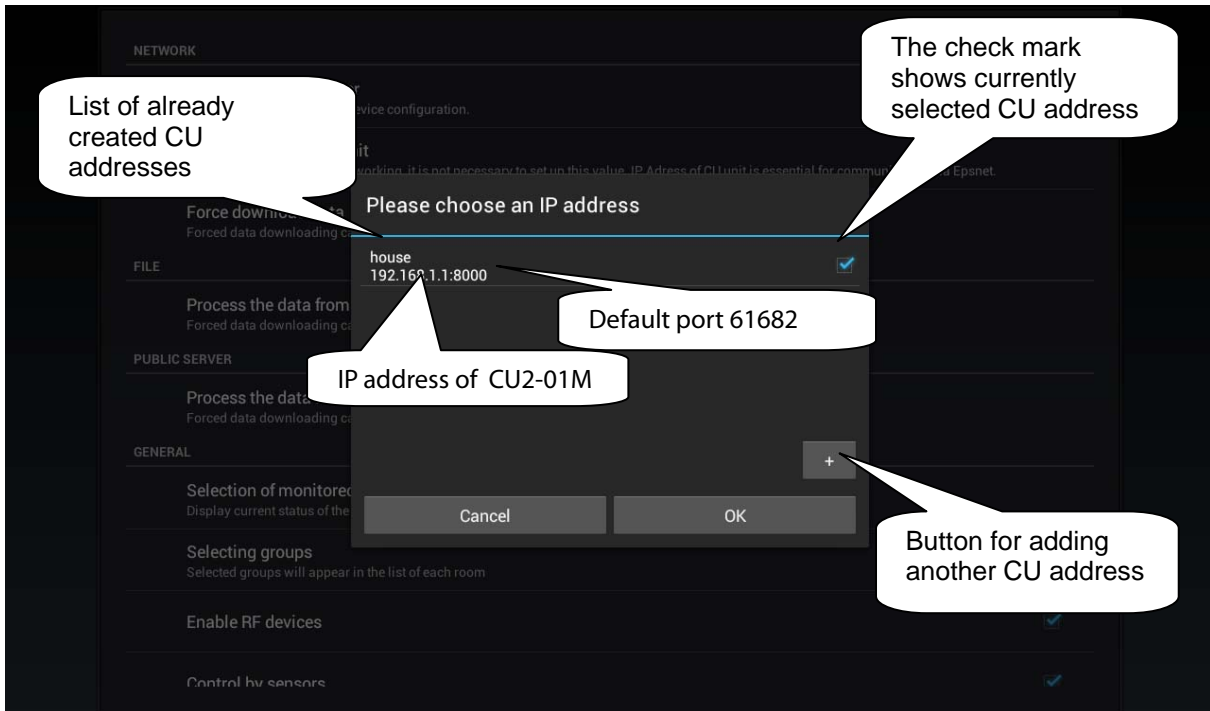
The bookmark **Downloads** allows uploading of created or modified files **export.pub** a **rooms.cfg** in the computer.



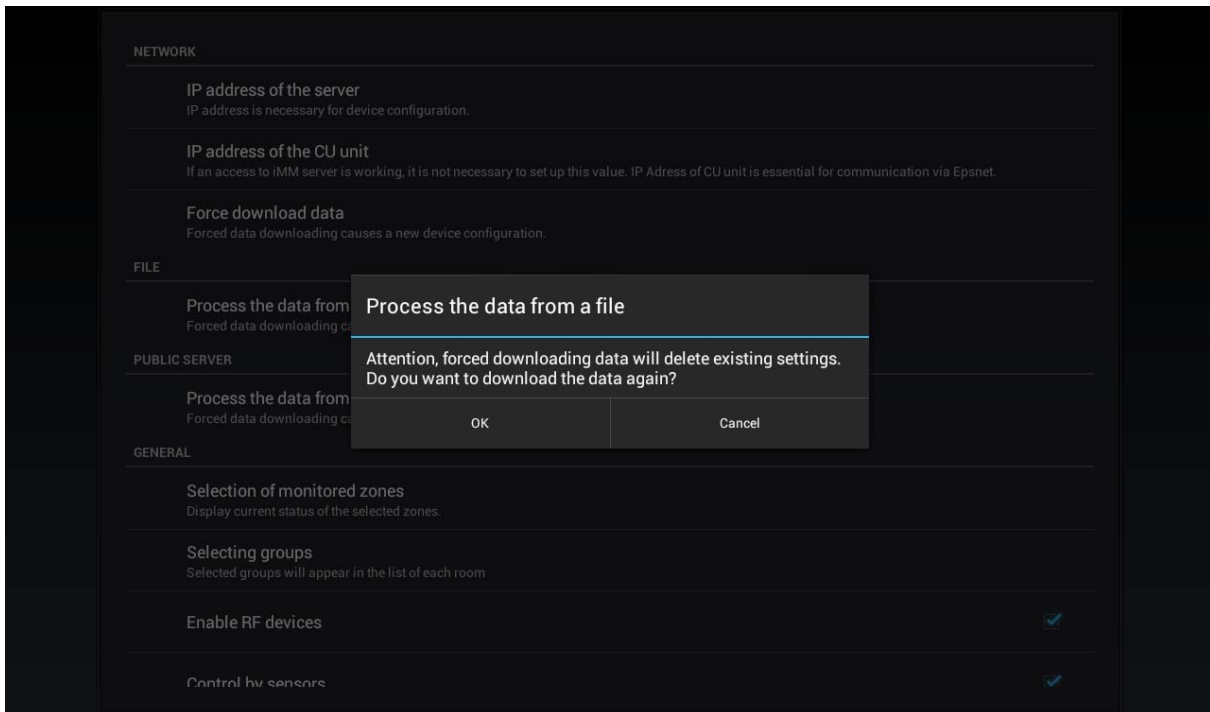
Transfer these files from PC to tablet where in the root directory create an **iHC** folder, and copy these files in it.



In the iHC application itself you need to select the option „IP address of CU unit“ where the **IP address of CU – central unit (CU2-01M)** is entered. Adding CU IP address is activated by clicking on the plus symbol. The name of the central unit is optional; and the default port is set to 61682. When a new central unit is added to the list, you need to tick the given central unit and confirm by OK.

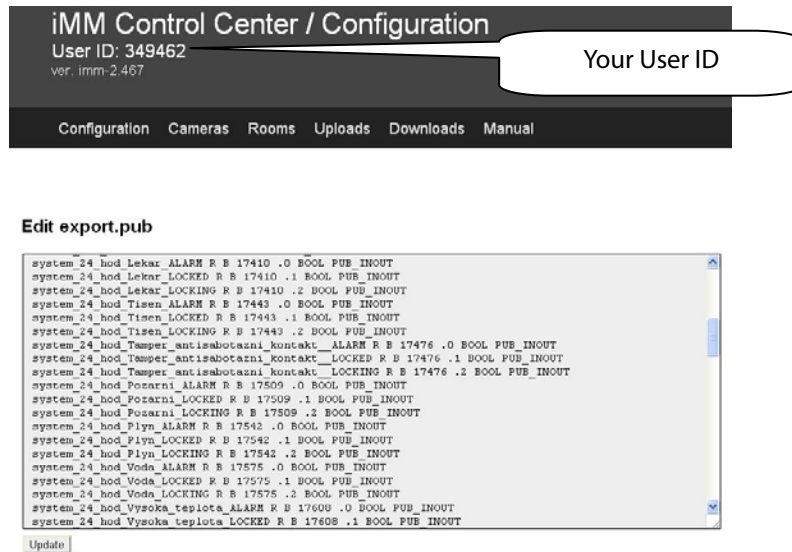


Last step is selection of option „Process data from file“. iHC application downloads all necessary data and, if all is set correctly, the message “Data download successful” displays.

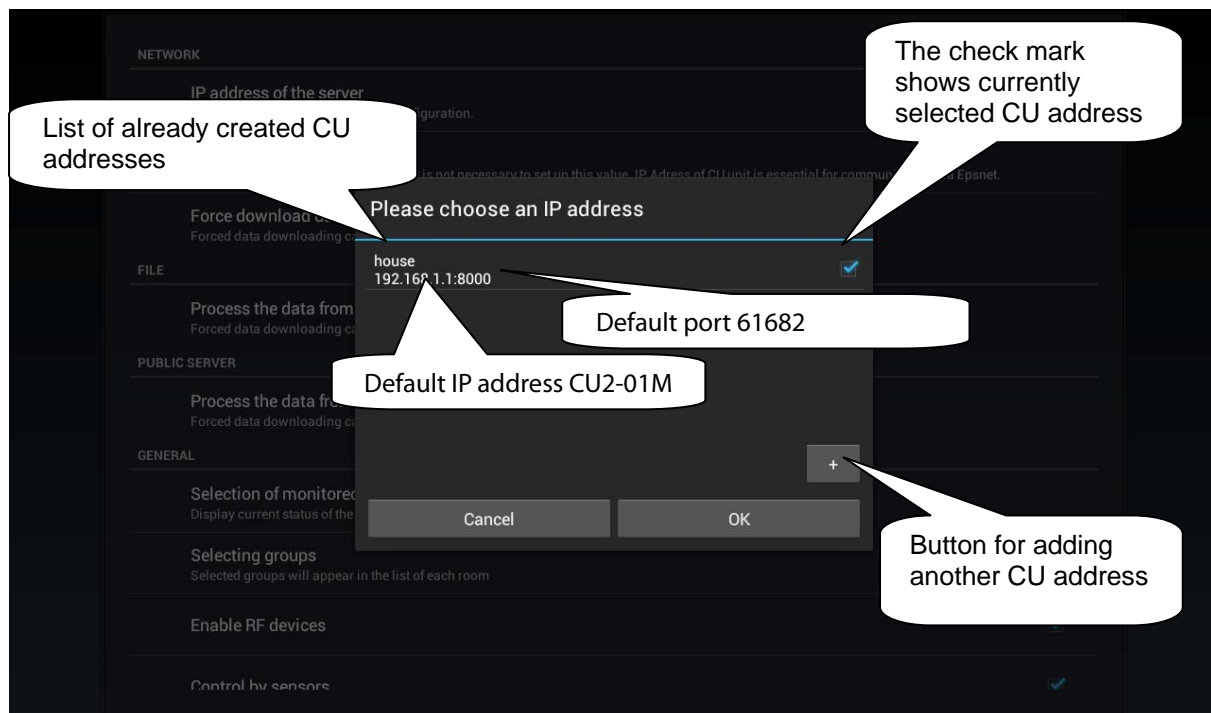


b) Application configuration from public server using User ID

First of all, you need to create configuration on public server. <http://217.197.144.56:8080>



In the iHC application itself you need to select the option „IP address of CU unit“ where the **IP address of CU** – central unit (CU2-01M) is entered. Adding CU IP address is activated by clicking on the plus symbol. The name of the central unit is optional; and the default port is set to 61682. When a new central unit is added to the list, you need to tick the given central unit and confirm by OK.



In the Settings menu select download data from public server. iHC application will ask for ID. ID is displayed in the upper left corner of the public server page. Confirm by OK and the application downloads the files, and is ready for use.



In version without IMM or Connection Server you can only control bus units from iHC application. To be able to control other devices, such as cameras, air conditioning, recuperation, home call boxes, meteostations, or energy consumption measurement, you need the presence of Connection Server. To be able to use Video zones and Audio zones, you need the presence of IMM Server.

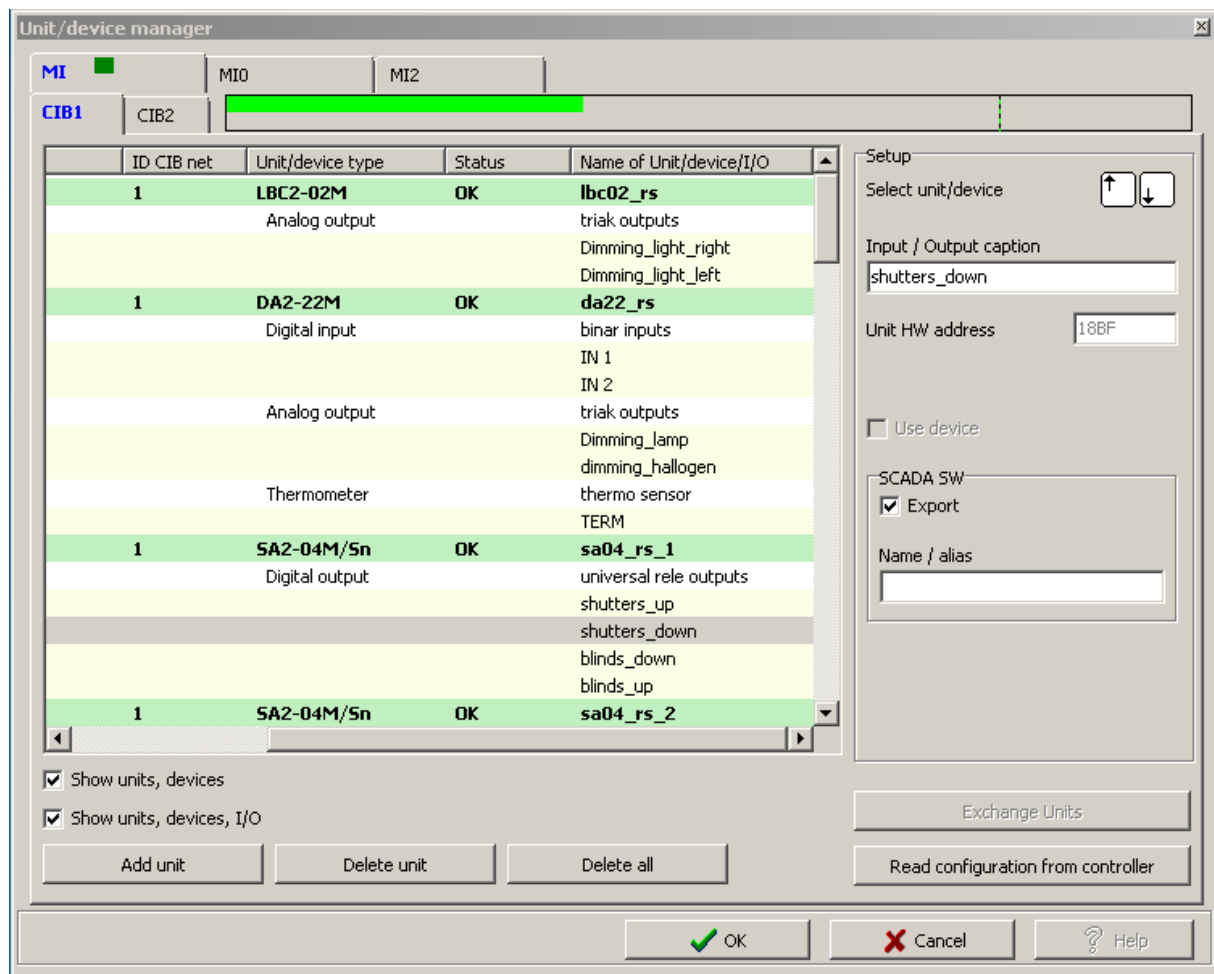
8. Data export from iDM (iNELS Designer& Manager)

IDM Software enables export of variables (input/outputs, time programs, counters and timers) by means of which iHC applications can be created to control the entire installation. The below text describes how this export should be performed.

Export of inputs/outputs

Export of inputs/outputs is performed from the window “Unit/device manager” where you need to tick the option “Export for visualisation” at desired inputs/outputs. If you wish to name the given input/output, use the column “Naming/alias”.

Those inputs/outputs that are used in some event need not be ticked. Export of these used inputs/outputs then proceeds automatically.



Export of time programs

Export of time programs is performed from the window "Time/week schedule manager" where you need to click on the menu "Set export for visualisation".

Time/week schedule manager

Name: Temperature (HVAC) schedule

Mode setup

	Temperature (°C)	Comfort	Normal	Depression	Minimum
Minimum	17.0 °C	Light Blue	Light Blue	Light Blue	Light Blue
Depression	30.0 °C	Light Blue	Light Blue	Light Blue	Dark Green
Normal	26.0 °C	Light Blue	Light Blue	Dark Green	Dark Green
Comfort	25.0 °C	Light Blue	Dark Green	Dark Green	Dark Green
Comfort	27.0 °C	Light Blue	Dark Green	Dark Green	Dark Green
Normal	24.0 °C	Light Blue	Light Blue	Dark Green	Dark Green
Depression	17.0 °C	Light Blue	Light Blue	Light Blue	Dark Green
Minimum	15.0 °C	Light Blue	Light Blue	Light Blue	Light Blue

Time stamp setup

Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday

02:00 05:00 08:00 11:00 14:00 17:00 20:00 23:00

Comfort
Normal
Depression
Minimum

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Copy this schedule to ...

SCADA setup

Add schedule
Delete schedule

OK Cancel

In this menu you need to tick all three options whilst weekly time program for heating/cooling and two-status time program can be exported.

- "Export program setup", i.e. time symbols and mode settings.
- "Export program control", i.e. individual modes (minimum, attenuation, normal, comfort) can be enforced time symbols and mode settings.
- "Export program status", i.e. view of program statuses (4 modes, desired temperature, current temperature)

The screenshot shows the 'Time/week schedule manager' interface. On the left, a list of rooms includes Kitchen, Living room (v:KOMF), and Bedroom (v:NO...). The main area displays the 'Bedroom' selected with a 'Temperature (HVAC) schedule' dropdown. Below this is a 24-hour grid for setting the schedule. A 'Copy this schedule to ...' button is present. The 'SCADA setup' section contains two columns of checkboxes and text boxes. The left column has 'Export program setup' and 'Export program control' checked, with various 'lblSCADA_ExportControl_*' labels and text boxes containing 'Showroom2_*'. The right column has 'Export program status' checked, with various 'lblSCADA_ExportState_*' labels and text boxes containing 'Showroom2_*'. At the bottom, there are 'Add schedule' and 'Delete schedule' buttons, and 'OK' and 'Cancel' buttons.

Export of time events

Export of time events is performed from the window "Time events management" where you need to tick the option "Export for visualisation". Again, given time event has to be named for the needs of export.

The screenshot shows the 'Time events management' window with the following configuration:

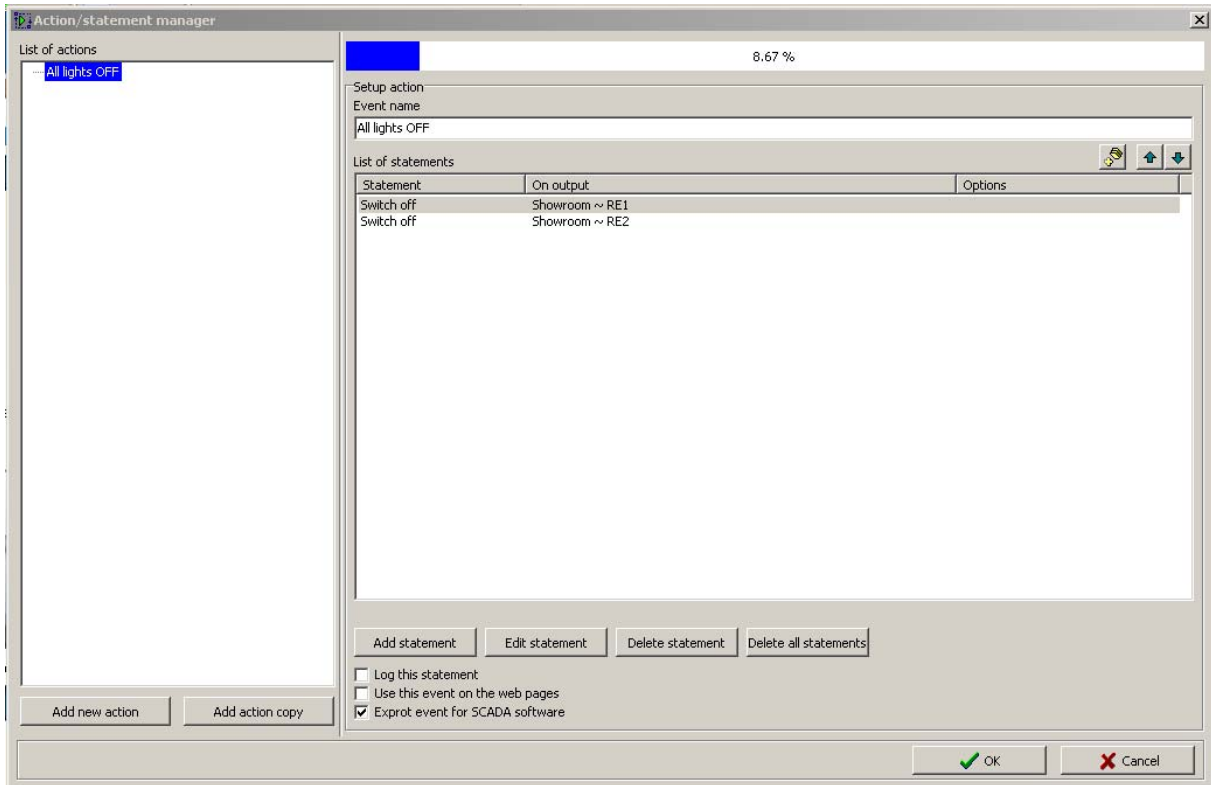
- List of events:** A table with one entry:

Name of event
14.02.2014 08:15:59
- Name of event:** watering
- Time of activation/spread:** 00:00:06.000 (start) and 00:00:00.000 (end)
- Event is active:**
- system_start:** system_start
- Type of event:**
 - Each day in week
 - Day in month
 - Each day in month
- Year setting:**
 - leden
 - únor
 - březen
 - duben
 - květen
 - červen
 - červenec
 - srpen
 - září
 - říjen
 - listopad
 - prosinec
- SCADA:**
 - Export for SCADA
 - Name for SCADA:** watering

Buttons at the bottom: Add new, Delete, OK, Cancel.

Export of events

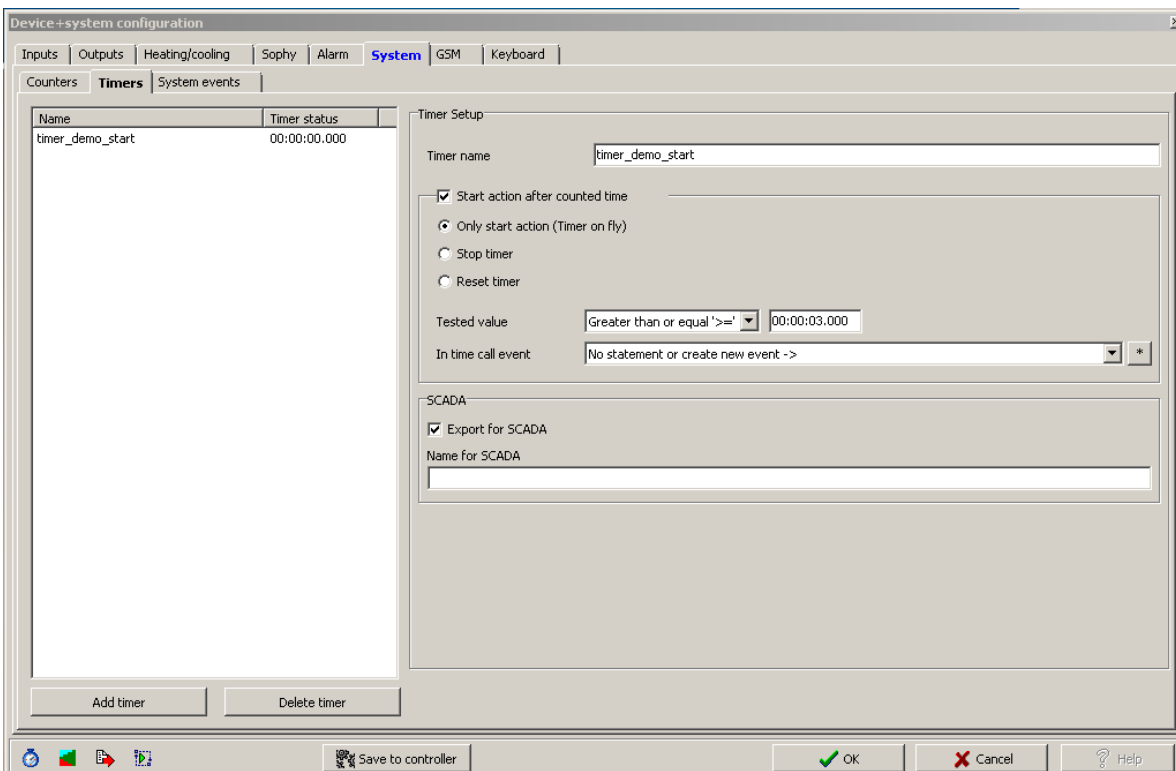
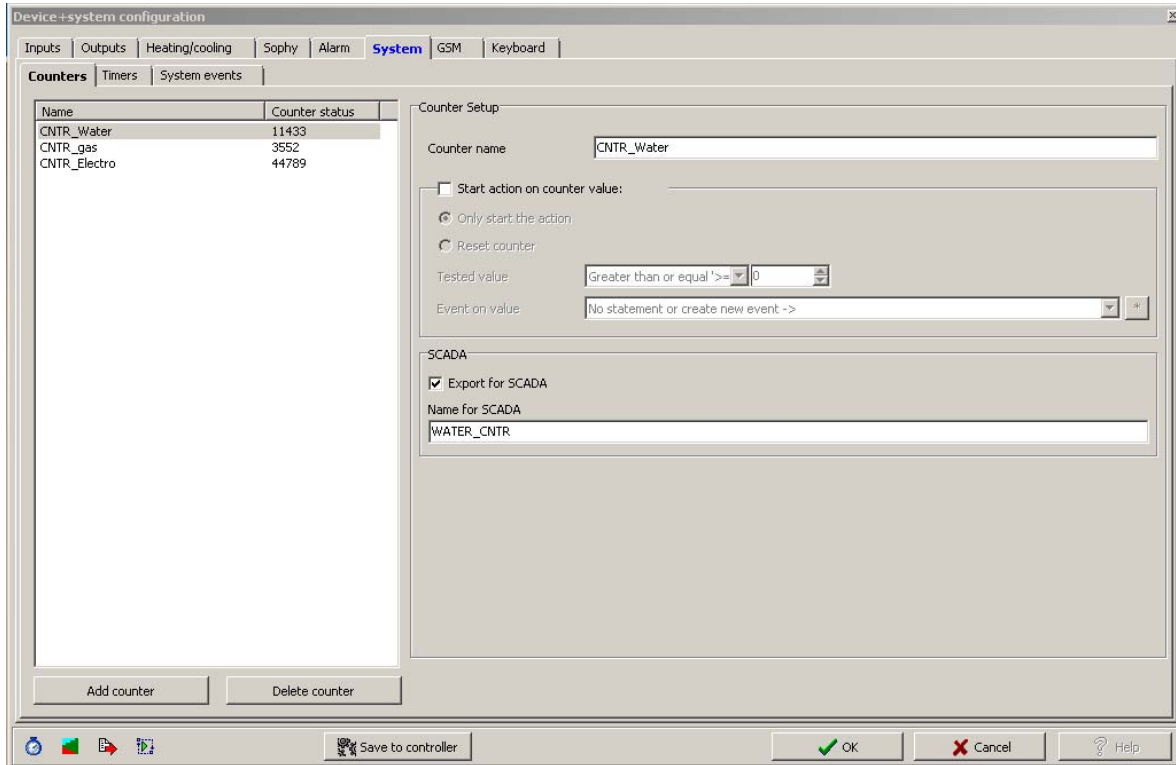
It is a special option of export for visualisation. It is direct export of event from the window “Action/statement manager”. These exported actions can then be called directly from the iHC application. In the bottom part of the window in the desired event you need to tick the option “Export event for visualisation”.



Export of counters and timers

Export of counters and timers is performed from the window “Device + system configuration”, bookmark “System”, sub-bookmark “Counters” or, more precisely, “Timers”. You can for “Export for visualisation” at either option.

Export of counters is important whenever we want to measure and visualise energy consumption using meters with impulse output. Impulses from these instruments are read on binary inputs by means of counters.



Upon placing a request for exporting of all variables, suitable setting of export manner has to be selected, as well as the path where the *.pub file will be saved. This is performed in the "Settings". Select "Create export of configuration for visualisation" in the "Export setting" section and then "...Visualisation". Then set the path where the *.pub file will be saved. If you tick "Export only marked IO", only those i/o will be exported that we have selected in the window "Administrator of units/devices" on the previous page. "Extended export of binary inputs" represents export of binary inputs with counter. "Report change in export files " is an option that provides and reports any potential displacement of variable addresses in memory registries that might originate when a configuration is saved. "Export mapping of user actions" is an option for export of user actions, e.g. commands for relay groups, for lighting installation groups, and the like.

