Teletechnika TALOS-NET

A Central Online Hotel Building Management System (Online BMS)

The TALOS-Net Combo – Hotel Building Management System **is a modern system** providing access control for hotel rooms and shared areas, control of room energy consumption (lighting, air conditioning etc.), automation of functions for buildings and/or wings of buildings, temperature and fire detection control, presale of extra services and more generally the online control of a hotel's operation in real time via a central computer and Ethernet networking (*TCP/ IP*).

The system is based on RFID technology through the use of a special microchip installed on hotel customer cards, staff cards etc., which exchanges data with sockets in rooms and other controlled areas every time it is within the range of the signal emitted by a socket. The emission range is 5 cm from the socket and the system is activated when the card is pressed against the socket, without any humidity concerns thanks to the lack of any electric contact. No special lock needs to be installed on the door, other than an electric strike on the inside of the door frame.

The modules installed on display units located in rooms and others areas (*floor/wing offices, shops, staircases, storerooms etc*) are equipped with an Ethernet 10Mbps networking device to ensure online communication with the central server and client servers located at the reception and other sections through the flexible TALOS-NET management program. Outside of its centrally managed operation, the entire system can also work simultaneously and autonomously if need be (*off-line operation*).

Integrating a high number of properties and functions, this innovative automation system introduced by Teletechnika allows you to bypass other non-associated systems which are highly expensive to buy and install. Due to its high degree of energy management (*not only at room level but also at floor, wing or building level*), it helps you achieve large energy savings, as well as extend the lifespan of devices, thus providing an excellent, technologically advanced and affordable solution for hotels, rented accommodation etc.

Alternatively, the system also allows for wireless connectivity by using the Talos-Net COMBO – WiFi module.

COMBO - MAIN CONTROLER

LOCAL INDICATIONTS ON EXTERNAL READERS   (VR-EXT)

- Blue color night lighting at all sockets
- Activated door-open display (*green LED*)
- Occupied room display (*green LED*)
- 'Do Not Disturb' display (*red LED*)
- 'Make my room' display
- Balcony door is left open in a free room (Open Door *LED is flashing*)
- Colors: Ivory White & Black Mat

 - A protective case (IP-55) can be used when needed in cases of high humidity.

INTERNAL READERS   (VR-INT)

Alternative Buttons

- Blue color night lighting at all sockets
- 'Do Not Disturb' button with display (*red LED*)
- 'Make my room' button with display (yellow *LED*)
- Independent Room Temperature Sensor (internally)
- Colors: Ivory White & Black Mat

- Optional extra buttons for DND and MAKE UP ROOM available

EXTERNAL DISPLAY RF-ID READER

Alternative External RFID card reader. Brief Description of the Device

Icons displayed

DO NOT DISTURBE	ROOM EMPTY	MAKE UP ROOM	DOOR OPEN	BALCONY DOOR OPEN

- Backlight 4.3" display screen with high brightness and large viewing angle.
- Programmable display of room number (single-digit, 2-digit, 3-digit, 4-digit).
- Symbol and letter display option (*, #, A, B, C, D).
- Color selection option for characters and background color.
- Selection of small or large DOOR OPEN symbol.
- Display option for hotel logo (optional).
- Custom-made screen print applied on screen (optional).
- Color selection option for fiberglass screen (transparent or translucent).
- Card reading distance up to 5 cm (max).
- Color selection option for plastic part (white or dark grey).
- Wall-mounted; designed to be opened only with special opening tool provided.
- Connected to detachable 4-pole terminal block (GND, +12V, LED DATA, RFID OUT).
- Mini USB for retrofitting and adding color, font and other data through a txt file.
- 2-button option (Set & Include) to select, save and initialize system variables.
- IP-55 dehumidifier (optional).
- Dimensions 12.5 – 12.8 – 2.25 cm

- Colors: Plastic case, White or Black-Mat. Glass color: transparent or tinted.

System characteristics

- Silent door opening.

  By touching the card against the room's external socket, the door's electric mechanism is activated for 4 seconds; the Door opener display is switched on, while the room's lights are also switched on for 1 minute. The system controller supplies the door's electric mechanism with direct voltage to prevent any noise from being produced.

- Consumption control: If you insert your card in the illuminated slot of the internal socket, lights and air conditioning will remain on for as long as the system controller can read the card. After removing the card from the socket, lights and air conditioning are switched off after one minute. The system is equipped with a 30A load relay for several energy consuming devices and a 16A load relay for the air-conditioning system.

- Independent air conditioning control: In an occupied room the system allows the air-conditioning device to operate only if the balcony door is closed. It provides for a 3-minute operation while the balcony door remains open, only to allow guests to ventilate the room or step out onto the balcony. If the balcony door remains open for more than 3 minutes, the air-conditioning shall be deactivated until the door closes again. The optional use of air conditioning is indicated on the card, thus allowing guests to buy air conditioning as an extra service, when the mention 'NO AIR-CONDITION' is displayed on their cards. The option of using an additional air-conditioning system in two-space family rooms is also provided.

- Multiple users per room: The system recognizes and grants access to six different card holders per room, as well as to different groups or categories of master key cards with predefined access rights (*e.g. cleaners, maintenance staff, master cleaner etc.*). Therefore, several key cards can be provided to suite guests or families accommodated in our facility.

- 'Do not disturb': The guest can activate the 'do not disturb' function by pressing the respective button on the room's internal socket. This prevents the room maid to enter the room. However, for safety reasons this function can be deactivated by using a master key card from the outside. A message of the request is delivered to the system main computer.

- 'Make My Room': The guest can activate the 'make up room' function by pressing the respective button on the room's internal socket. The corresponding LED lamp of the external reader is activated and a message of the request is delivered to the system main computer.

- Room condition display: All functions, as well as the room's condition, are displayed by LED lighting on the external (and internal) room socket.

  -**Door activated**: Door opener/Alarm green LED on for 10 seconds;

  -**Room occupied**: Room occupied green LED;

  -**Do not disturb**: Do not disturb red LED;   -
  Make Up Room: Make up room yellow LED;

  -**Open balcony door** in a free room: Door opener/Alarm LED flashing.

- **Night lighting:** All sockets (*internal or external*) are illuminated on the upper part by intense but discrete blue night lighting to facilitate the movement of guests when lights are off in their room or in the floor corridors.

- **Emergency by-pass mode:** In the event of a failure, COMBO modules can work on a by-pass mode controlled by a lock installed on the device, which activates lighting and air conditioning.

- **Power safe mode:** COMBO modules can automatically switch into a power safe mode using an external 0,8HA battery (optional) in the event of a power failure, equipped with a charging and discharging control.

- **Access to central entrance and other entrances:** Additional COMBO modules, programmed for central entrance, parking entrance and other accesses can be used across different hotel areas. Guest and staff cards can be programmed to grant or not grant access to these areas.

- **Categories of guests/ prepaid services:** Cards can be programmed to match the needs of every hotel, including the presale of services and to grant or not grant customer access to them, such as the right to use air conditioning, access to parking spaces or to a fitness center etc. when these services are charged separately. The programming of such cards is ensured through the use of Nemesis USB devices.

FUNCTIONALITIES VIA THE NETWORK AND THE CENTRAL SOFTWARE OF TALOS-NET SERVER (Multiuser Software)
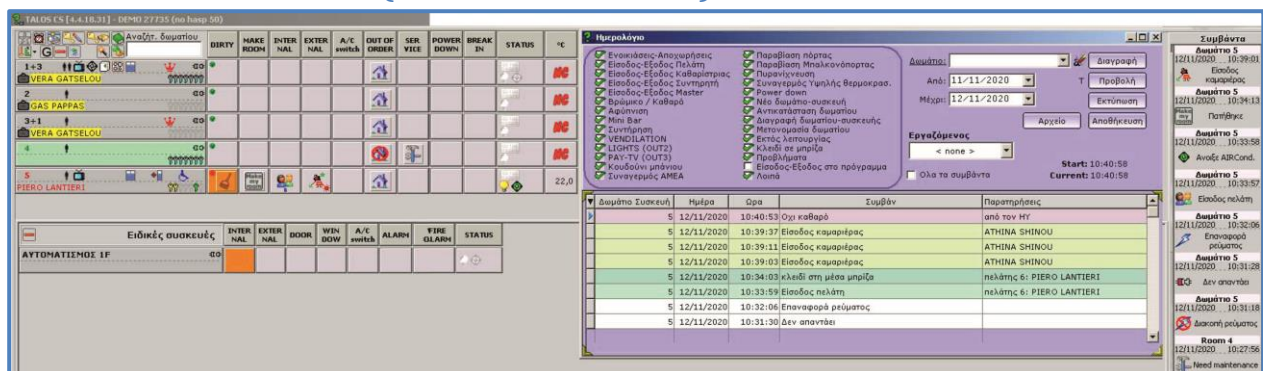
- **Alarm system**

ALARMS GENERATED FOR:

- fire detection;
- bathroom emergency button;
- door forced open;
- balcony door forced open;
- high temperature.

- **Access to rooms and shared areas**

- Access to rooms in accordance with booking time limits, as well as to another five groups of shared areas, to parking area and to central entrance.

-Room door opening also from the reception.

- **Room services**

  - Granting or not granting access to room services (*air conditioning; pay TV; spa treatments etc.*).

  - Checking the mini bar.

- **Automations**

  - Assigning Talos-Net COMBO devices as automation devices (*for floors, buildings etc.*).

  - Starting and stopping the operation of automations in rooms and corridors based on a day time schedule, with guest entering and exiting the room, programming of ventilation automation etc.

  - Automatic control of electric valves for hot and cold water in rooms, night lighting etc.

  - Virtual connection of guests exiting their rooms or using the elevator with corridor automations etc.

  - Virtual connection of empty floors and/or hotel wings with automations for the management of circulators/electric valves.

- **Cards programming and registration**

  -Programming of cards for guests, cleaners, holders of master keys by the reception via Nemesis-USB and update of room data via the network.

  -Local programming of cards (*in case of emergency*).

  -Possibility to generate group cards in advance, before the date of arrival.

- **Data registration**

  - Room condition data (*free – occupied, clean – to be cleaned – being cleaned –in need of maintenance – out of order – maintenance notes etc.*).

  - Room booking data.

  - Printouts of room condition data, lists of rooms to be cleaned, lists of rooms requiring maintenance work and maintenance details, lists of staff, lists of IP & Mac addresses etc.

  - Possibility to generate lists of arrivals or to automatically download them from the front office via the FIAS interface.

  - Room access history by guests, room maids etc.

- **Easy room management**

  - Change of room by hitting only one key on your computer.

  - Connection of two rooms with each other (*suite*).

  - Rooms with common external door.

  -Virtual rooms to generate cards for use only by the hotel's POS systems.

- Shared rooms & staff rooms.

- **Indications and warnings**

  -Temperature indications per room, managing minimum and maximum temperature levels, temperature control in empty rooms.

  - Warnings of power failure and recovery.

  - Reminder of wake-up call requests, bookings expiring before check-out time, message waiting text.

  - Identifying room maids and maintenance staff (*room maids and maintenance staff identity*) – Event and maintenance work logging etc.

- **Search function**

  -Mechanism for searching customer data and an emergency display of selected events (*e.g. doors forced open, fire, power failure etc.*).

  -Mechanism for searching employs room accesses.

  - Complete events file – search mechanism.

- **Operating characteristics of the system**

  -PMS; connection with front-office programs via the FIAS interface.

  - Possibility to upgrade any Talos-Net COMBO modules while the system is in operation (*with all new functionalities being added without any hardware modifications*).

  - Free upgrade of central software with new versions (*post-Version 4*). Automatic client upgrade following connection to the server.

  - Free installation of Talos-Net client stations on computers across several hotel sections and connection of multiple Nemesis USB card programmers and readers.

SYNCHRONIZATION WITH FRONT OFFICE (FIAS)
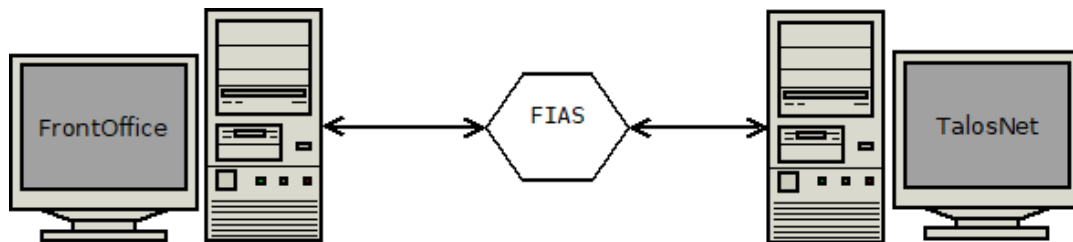
ADVANTAGES

1) Automatic assignment of rooms to guests with check-in through Fidelio/Protel

2) Key generation via command from Fidelio/Protel without using Talosnet (*assisted process*)

3) Controlled key activation (*on standby*) by cleaners and computer, when room is checked.

4) Future support for the use of POS devices (*nominal keys*)

5) Information from Fidelio/Protel on room condition (*free, occupied, clean, not clean etc.*)

6) Move to other room

7) Key preparation/generation before arrival date

8) Connecting predefined rooms (*by internal door*) into a suite or for independent tenancy

In conclusion: using one single program

YouTube videos for TALOS_NET

BAR PAYMENT WITH ROOM CARD: **https://youtu.be/u-OhJnp6Go0**

Client operating system for Android devices (Tablet & Android phones).
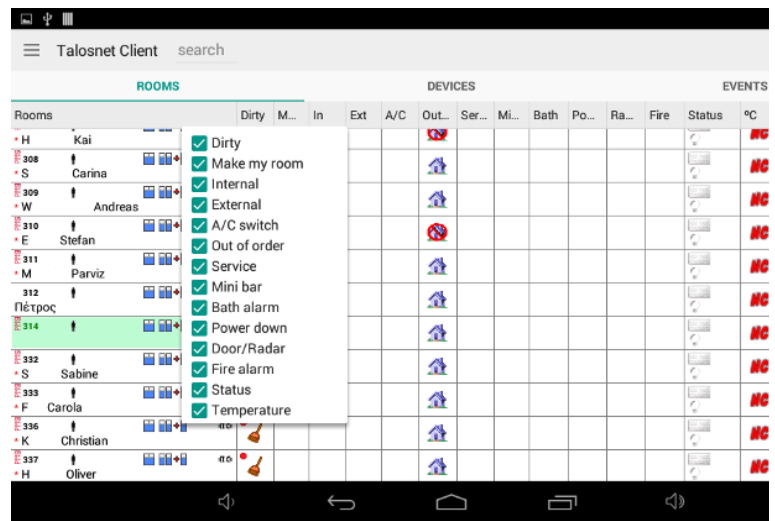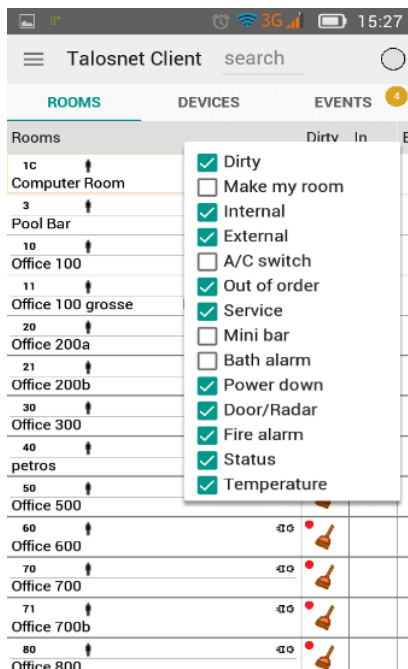
Several selected events displayed to Android

phones or tablets, through TALOS-CLIENT Apk.
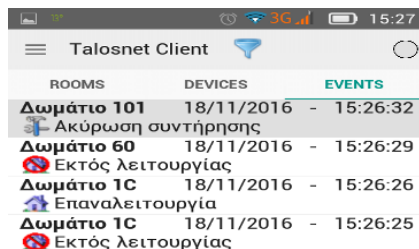
Email server for alarm messages (example bellow)

14/12/2016 18:40:35	room: **80**	Fire detection ALARM
14/12/2016 18:40:35	room: **80**	Power outage
14/12/2016 18:40:35	room: **80**	Bath bell ALARM
14/12/2016 18:40:44	room: **80**	Power recovery

VARIOUS MONITORS OF TALOS-NET PROGRAM
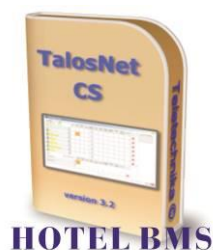
Key read, pop up menu in USB Nemesis
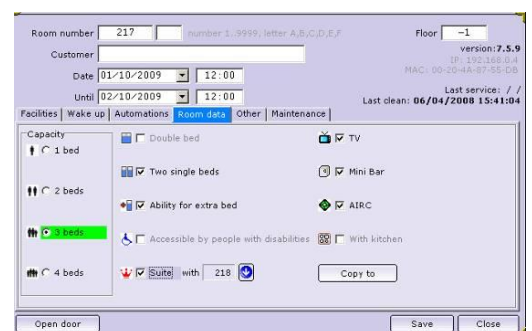
Setting room data & facilities

Room notification about staff keys

Name-changing of room & commonly used Premise, automations

Setting IP address of a room device

Define new devices

Maintenance request details

Wakeup call list

Setting room automations

Floor or building automation – interconnected rooms

Staff list definition and validity

PMS connection with Front office to receive arrivals list

Connection – synchronization with front office

Make new client users for other reception's & departments

Accessibility on staff member card (time & date table)   Key color code, description
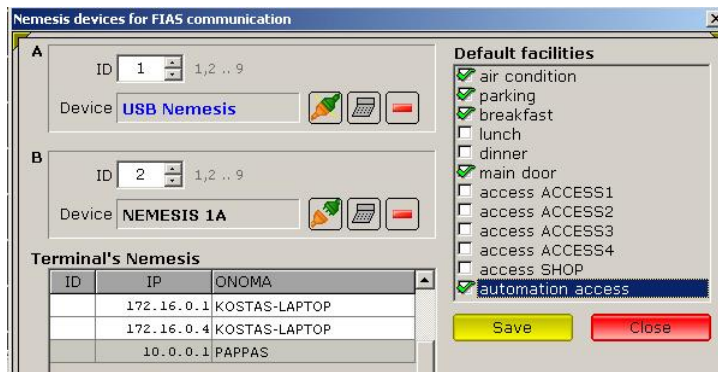
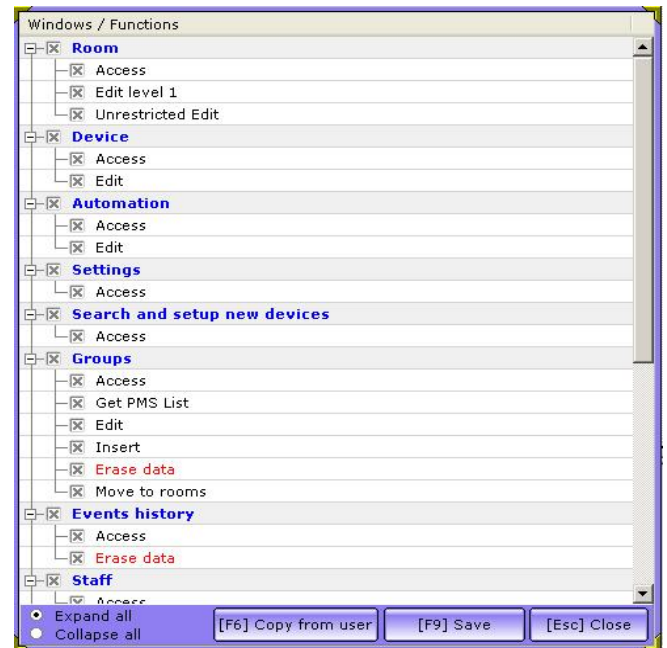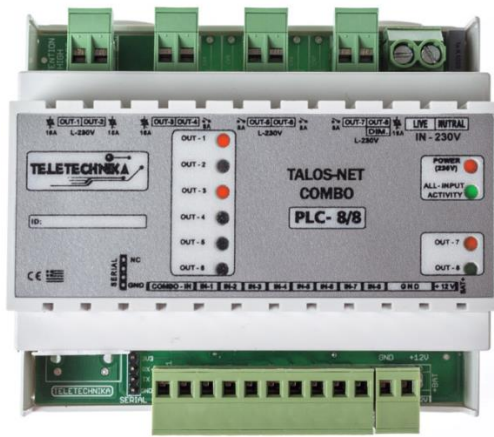Setup more Nemesis devices (usb or TCP/IP card programmers)
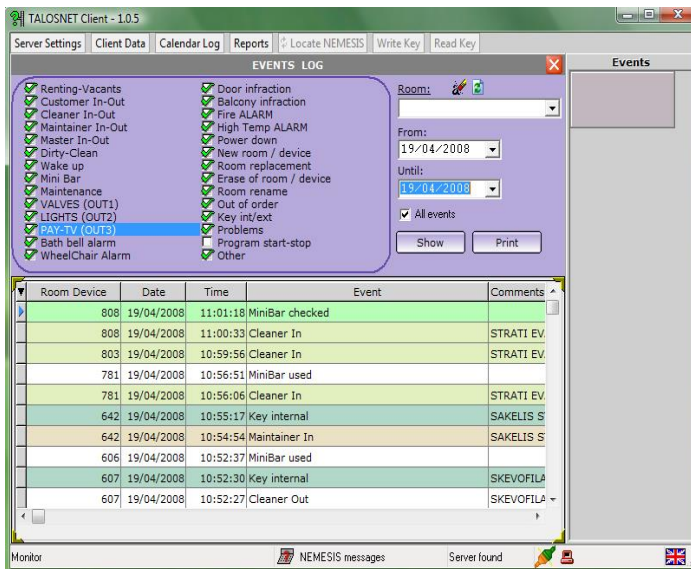
TALOS – Client user, main screen   Setup, Client- user rights

Hardware description

- **10-Watt** switching **power supply**.
- **Din rail box** (switch board) with 6 positions
- **Inputs**: 8 inputs for low voltage switch buttons.
- **Outputs**: 7 phase outputs via a 10A contact relay and only one output via TRIAC 20A, for light dimming.
- **Visual displays**: 8 LEDs for the outputs, 1 LED for all inputs (*activated simultaneously with the active input*) and one LED to indicate power supply.
- **Communication**: via the Ethernet network connected to the COMBO device.

Functions

- Every input can perform two different functions, depending on how the push button is activated (*by pressing and holding or instantly pressing*).
- Every input can activate one or more (or even all) outputs for ON-OFF functions (*except for the dimming output*).
- If selected, the dimming output occupies exclusively two inputs (gradual up-and-down function when activated by pressing and holding, and ON-OFF function when pressed instantly).
- Should an output be selected to handle a curtain or window shade, this shall occupy exclusively two inputs (*gradual opening or closing when activated by pressing and holding, and ON-OFF function when pressed instantly*).
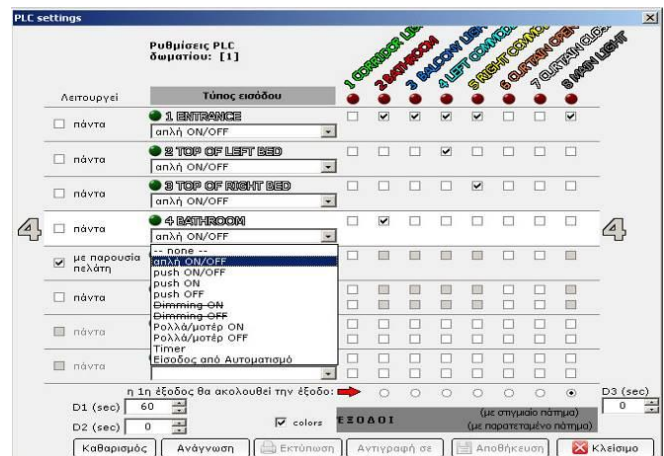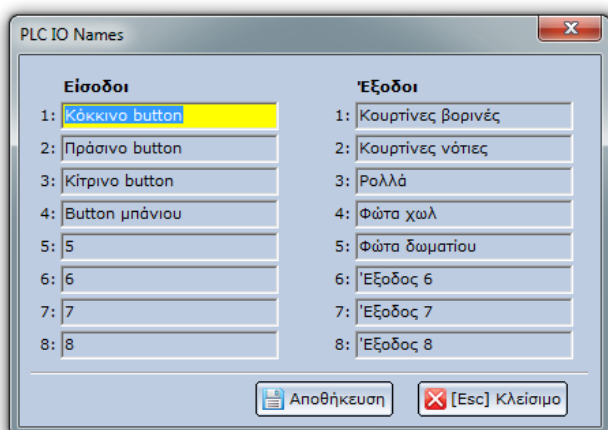
PLC input when activated by automation

Every input can be selected to follow specific automation instructions by an interconnected COMBO device.

Therefore, all available COMBO room automation scenarios can be implemented through PLC inputs. The operations that can now be performed, depending on the hour of day, shall concern any of the following: an occupied or free room, with the guest(s) being inside or outside of it, the opening of a door followed by a specific period of time, the guest(s) leaving the room followed by a specific period of time, the room temperature depending on whether a room is occupied or not and whether the guests are present or absent etc.

- Free selection of inputs and outputs to be matched with automations through the TALOS program.
- Ease of switching between scenarios and operations via the central computer.
- Renaming of inputs and outputs via the central computer to easily guide operators and maintenance staff.
- Visual display of the state of outputs on the central computer.

For more information go to:

http://talosnet.blogspot.com/

https://wiki.teletechnika.gr/index.php?title=Category:TalosNet

Contact Details

25 G. Seferis Str., Thessaloniki
Greece, Postal Code 54250

Tel.: + 30 2310330177

Fax: +30 2310330187

teletechnika.electronics@gmail.com

Teletechnika

Electronics