



User guide: **proServ** and **realKNX** installation
by

A.	
A. proServ	6
I. Presentation	6
II. Connection	6
III. Physical address	6
IV. ETS database	7
V. Application ETS	7
a. KNX-proServ setting IP	7
b. Selection of zones	8
c. Zone X	9
d. Global Functions	10
e. Passwords for Profils	11
f. URL Schemes	11
VI. Sonos system (with realKNX Server)	12
a. Presentation	12
b. Zones Sonos	12
c. Radio Station	13
d. Configuration KNX	13
e. Communication Sonos / proserv / realKNX Server	14
B. realKNX Server	16
I. realKNX Air	16
a. Presentation	16
b. Connection	16
II. realKNX O-two	16
a. Presentation	16
b. Connection	17
III. IP Address	17
IV. Home page	17
V. proServ Tools	18
a. Smart Charts	18
b. Scheduler	19
VI. remoteConnect	21
a. Required configuration	21
b. Mise en service	21

d.	Function of remoteConnect	21
VII.	HomeKit	21
a.	Prerequisites	22
b.	Application realKNX	22
c.	Commissioning	22
d.	Voice commands with Siri	23
e.	Remote control and automation	24
f.	Share control of your home	25
g.	Solutions	25
h.	Various information	26
VIII.	Amazon Echo	26
a.	Prerequisites	27
b.	Application ALEXA	27
c.	Commissioning	28
d.	Voice commands with Alexa	28
e.	Function Group	29
f.	Solutions	29
IX.	Google Home	30
a.	Prerequisites	30
b.	Application Google Home	30
c.	Commisioning	31
d.	Voice commands with Google Home	31
e.	Solutions	32
X.	Snips (Air)	33
a.	Meaning of “offline”:	33
b.	Activation of Snips	33
c.	Snips Core	33
d.	Snips Assistant	34
e.	Speaker/microphone unit	34
f.	Snips application	34
g.	Text to Speech	35
h.	Troubleshoot	35
i.	Commissioning	35
j.	What do Snips understand?	35
XI.	Dashboard	37

a. Prerequisites	37
b. IP Address	37
c. Button Size	38
d. Customizing homepage images	38
e. Customizing the Background Image	39
f. Choice of Appearance Theme	39
g. Name of the Dashboard	40
h. Editing the proSev and resetting the Dashboard	40
XII. Automation	40
a. Prerequisites	40
b. Node realKNX	40
c. Connection to Node-RED	40
d. Exemple	41
e. Customizing the nodes	41
XIII. Augmented Reality	41
a. Configuration require	41
b. Complete notice	41
XIV. Appendix	42

Versions :

v1.0 : First version (08/05/17)

v1.1 : First version (04/04/17)

v1.2 : Google Home + new remote Connect (30/08/17)

v1.3 : Added bookmarks (libreoffice) (11/10/17)

v1.3.1 : Added Google Home + remoteConnect fix bug (07/12/17)

v1.3.3 : Added realKNX Air (07/12/17)



A. proServ



I. Presentation

The ProServ interface is an interface that allows:

- Complete configuration of the graphical user interface for iPhone, iPad and Android devices through ETS.
- Access to the KNX bus with KNXnet / IP (programming with ETS, for example)
- Control the KNX bus with our free apps "iKnix" and "iKnix HD" from Apple Store and Google Play. **New "iKnix 2" app for iOS iPhone and iPad**

II. Connection

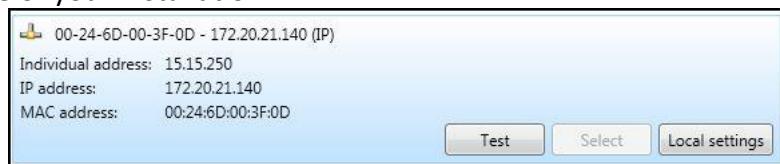
ProServ needs a power supply of:

- External power supply 12-24V AC or 12-30V DC (800Mw)
- Power over the network cable (PoE)

In addition, ProServ must be connected to your Wifi router and the KNX bus.

III. Physical address

- Open ETS4 (ETS5 and ETS3f is also possible, however, the dialogs are somewhat different)
- Go to "Settings", "Communication" and you will find the device in "Connections" discovered
- Select the device and press "select"
- Click on "Local Settings" to assign a physical address for the interface This is necessary to program the bus with ProServ The first two digits must correspond to the TP line of your installation.



IV. ETS database

You can find the database directly on our website:

<https://proknx.com/fr/downloads-fr/>

V. Application ETS

a. KNX-proServ setting IP

- Name of device → You must mark the name of your installation (ex : My Home X)
- IP Adress → You have the choice of putting your proServ in DHCP or fixed IP address

1.1.1 KNX-proServ > KNX-proServ réglages IP

KNX-proServ réglages IP	Nom du dispositif	KNX-proServ
Sélection des zones	Adresse IP	<input checked="" type="radio"/> DHCP <input type="radio"/> manuelle
Zone 1		
Zone 2		
Global functions		
Mots de passe pour profiles		
URL schemes		
Participants	Paramètre	

proServ must be added to your local area network (LAN) and must preferably be configured with a static IP address, especially if you are going to use the realKNX Server.

b. Selection of zones

Up to 18 zones can be added.

1.1.1 KNX-proServ > Sélection des zones

KNX-proServ réglages IP	Zone 1	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
Sélection des zones	Nom	Salon
Zone 1	Zone 2	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
	Nom	Chambre
Zone 2	Zone 3	<input checked="" type="radio"/> Désactivé <input type="radio"/> Activé
	Zone 4	<input checked="" type="radio"/> Désactivé <input type="radio"/> Activé
Global functions	Zone 5	<input checked="" type="radio"/> Désactivé <input type="radio"/> Activé
Mots de passe pour profiles	Zone 6	<input checked="" type="radio"/> Désactivé <input type="radio"/> Activé
URL schemes	Zone 7	<input checked="" type="radio"/> Désactivé <input type="radio"/> Activé
Associations	Paramètre	

It is from this submenu that you will begin to configure the architecture of the installation. In fact, you have to enter the name of your rooms.

Example :

*Living Room
Bedroom
Dining Room
Office
Kitchen
Garden
Hall*

Avoid using abbreviations for names as this will not work with the voice recognition applications!

C. Zone X

1.1.1 KNX-proServ > Zone 1

KNX-proServ réglages IP	Fonction 1	ON / Off
Sélection des zones	Nom	Plafonnier
Zone 1	Profiles	Admis pour tous les utilisateurs
Zone 2	Fonction 2	Désactivé
Global functions	Fonction 3	Désactivé
Mots de passe pour profiles	Fonction 4	Désactivé
URL schemes	Fonction 5	Désactivé
	Fonction 6	Désactivé
	Fonction 7	Désactivé
Associations	Paramètre	

It is now necessary to enter the names of the functions that are in the selected area.

Function X → You can choose the type of function by clicking on the drop-down menu

Name → You must write a description for this function

Exemple :
Ceiling
Wall lamp
Spots
LED
Speaker
Thermostat

Profiles → This allows you to block this function to other users. (See "Profiles")

Avoid using abbreviations for names as this will not work with the voice recognition applications!

d. Global Functions

1.1.1 KNX-proServ > Global functions

KNX-proServ réglages IP	Station météo	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
Sélection des zones	Luminosité est	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
Zone 1	Luminosité sud/nord	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
Zone 2	Selectionner	<input checked="" type="radio"/> Sud <input type="radio"/> Nord
Global functions	Luminosité ouest	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
Mots de passe pour profiles	Vitesse du vent	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
URL schemes	Température extérieure	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
	Pluie	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
	Heure/Date	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
	Météo par Internet	<input checked="" type="radio"/> Désactiver <input type="radio"/> Activer
	Code (weather.com)	GMXX0007

Weather station → This menu allows you to integrate a weather station into your proServ. You can select the functions that your weather station can measure.

Hour/Date → By activating this menu, the communication objects for the time and the date will be freed.

The proServ will be able to send the time and date from the internet on each KNX bus every time iKnix2 is opened.

Weather by Internet → The proServ will retrieve all weather forecasts on weather.com! You must login to this site and search your city. Subsequently you must copy part of the URL and paste it into the proServ.

Exemple :

FRXX0076:1:FR

1.1.1 KNX-proServ > Mots de passe pour profiles

KNX-proServ réglages IP	User 1	<input type="text"/>
Sélection des zones	User 2	<input type="text"/>
Zone 1	User 3	<input type="text"/>
Zone 2	User 4	<input type="text"/>
Global functions		
	Mots de passe pour profiles	
	URL schemes	

e. Passwords for Profils

In case you have integrated profiles with certain functions in the zones, it is here that you will enter the passwords for each profile. For example, a profile can be a configuration for children, guests and homeowners.

1.1.1 KNX-proServ > URL schemes

KNX-proServ réglages IP	URL scheme 1	<input type="text"/>
Sélection des zones	URL scheme 2	<input type="text"/>
Zone 1	URL scheme 3	<input type="text"/>
Zone 2	URL scheme 4	<input type="text"/>
Global functions	URL scheme 5	<input type="text"/>
Mots de passe pour profiles	URL scheme 6	<input type="text"/>
	URL scheme 7	<input type="text"/>
URL schemes	URL scheme 8	<input type="text"/>
	URL scheme 9	<input type="text"/>

f. URL Schemes

Schema URLs allow you to enter additional commands for other applications such as Sonos.



VI. Sonos system (with realKNX Server)

a. Presentation

The realKNX allows the user to do some basic SONOS functions via the KNX bus. All parameters that are required for communication between SONOS systems and the KNX bus can be determined via the ETS database of the KNX-proServ controller.

Up to five SONOS zones can be managed via the KNX bus. Grouped zones are also recognized and monitored by KNX participants at the same time. To this end, the following functions are available:

→Commands

- Play /Pause
- Increase the volume (+)
- Lower the volume (-)
- Volume as a value (0 to 100%)
- MUTE disabled / enabled
- Next
- Previous
- Radio station selection (1-byte coded value)
- Next radio station
- Previous radio station

→States

- Station radio (as 14-byte character string)
- Title (as 14-byte character string)
- Artist (as 14-byte character string)
- Album (as 14-byte character string)
- Volume (0 to 100%, 1 byte)

b. Zones Sonos

The SONOS system must be installed correctly before the realKNX Server connection configuration. It is possible to create more or fewer zones than the five zones controlled by realKNX/proServ. If more zones are installed, select five:

- Must be controlled by KNX
- Are frequently or constantly grouped together

However, the following combination counts as a SONOS zone:

- Play:1, Play:3 ou Play:5 individuel

- Speaker stereo Play:1, Play:3, Play:5 (Only the left speaker counts here!)
- un ZP90 ou ZP120
- un Playbar
- A Playbar with combined speakers or ZPs (only the Playbar counts here)

A subwoofer or a bridge does not need to be counted.

To identify the SONOS zones, the zone serial numbers must be identified. To do this, start a SONOS controller (App iOS, Android or PC) and note the serial number of the devices to be counted in the settings "*About my SONOS system*": Exemple "Serial number: **B8-E9-37-38-0D-2C**: GB"

The string required later for the configuration becomes: "RINCON_**B8E937380D2C01400**"
Replace the red letters / numbers combination!

c. Radio Station

Five different radio stations can be started directly by KNX commands. The stations must first be set by a SONOS controller (iOS, Android or PC). Search and select the station you want by "Radio". In the dialog that follows, add "Info & Options" and "Add to my radio stations". The transmitters thus searched are then available directly under "Radio" -> "My radio stations".

d. Configuration KNX

For configuration, a KNX-proServ controller is required. This can be provided by manufacturer iKnix or BleuCommAzur (the name of the manufacturer is printed on the side of the module)

Download the group addresses for ETS4 / 5 on the following link:

- <https://proknx.com/web/fr/realknx/sonos/sonos-group-adresses.csv.zip>
-

Import these group addresses into your ETS project. **Caution: The level of 10 / x / x group addresses must be free.** If this were not the case, the existing 10 / x / x level should be moved to another level. This can be done by simply transferring the main level 10 to another free level. Then the devices that have communicated at this level must be reprogrammed (program only the application program, physical address can be maintained).

- ▲  10 SONOS
 - ▷  10/0 all Zones
 - ▷  10/1 Zone 1
 - ▷  10/2 Zone 2
 - ▷  10/3 Zone 3
 - ▷  10/4 Zone 4
 - ▷  10/5 Zone 5

The structure of group addresses like this will be imported:

The following settings must be made in the proServ parameters
(The URL scheme index can be freely chosen):

URL scheme 1 :

#SONOSX#<Adresse IP realknx Server>#<Identification zone1>#<Identification zone2>#<Identification zone3>#<Identification zone4>#<Identification zone5

Enter the <realKNX Server IP address>. Enter the <identification zone> as described in the SONOS zones section. Up to five RINCON channels can be entered. If the number of zones is smaller, one reduces accordingly.

URL scheme 2 :

URL scheme 18	#SONOSX#192.168.0.9#RINCON_B8E937380D2C014
URL scheme 19	#RADIO#TSF Jazz#ANTENNE BAYERN#Radio Monte
URL scheme 20	#ALTIP#192.168.0.6

#RADIO#<Name radio Station1>#<Name radio Station2>#<Name radio Station3>#<Name radio Station4>#<Name radio Station5>

The <Name radio Station x> must be entered literally (as described in the Radio stations section). Up to five radio transmitters can be input. If the number of transmitters is smaller, the number of transmitters is reduced accordingly.

URL scheme 3 :

[#ALTIP#<IP Adress of proServ>]

The alternative IP address <IP address of proServ> is optional and is only necessary if the communication after the parameterization is not to be carried out by the proServ. In most cases, you may leave it empty.

e. Communication Sonos / proserv / realKNX Server

Communication with the KNX bus is via the KNXnet / IP "tunnel". The KNX-proServ allows communication via up to five tunnels. To enable SONOS communication and ETS programming at the same time, **please press the KNX-proServ programming button until the LED flashes.**

10/0/0 : Cette adresse démarre ou arrête toutes les zones en même temps indépendamment d'un regroupement.

10/x/1 : Commande de démarrage de la zone x avec « 1 », commande d'arrêt de la zone x avec « 0 ». Si la zone est regroupée avec une ou plusieurs zones, celles-ci sont également activées ou arrêtées !

10/x/2 : Statut de la zone x (démarrée ou arrêtée)

10/x/3 : Réglage du volume sonore de la zone x d'une valeur codée sur 1 octet. (Plage de valeur 0 à 100) même si la zone est regroupée avec une autre zone, le volume sonore est réglé seulement à partir de cette zone.

10/x/4 : Confirmation du volume sonore actuel en tant que valeur

10/x/5 : Réglage du volume sonore relatif : Télégramme MARCHE, plus fort, télégramme ARRÊT, plus faible. Pour le réglage continu du volume sonore, le télégramme doit être envoyé à plusieurs reprises. Le télégramme MARCHE déclenche aussi un démarrage de la zone.

10/x/6 : Coupure du son (MUTE) de la zone x avec « MARCHE », fonctionnement normal avec « ARRÊT ». Par rapport à démarrage/arrêt, cette commande permet également la coupure du son d'une zone groupée, sans l'arrêt des autres zones.

10/x/7 : Confirmation de la coupure du son (MUTE)

10/x/8 : Info, aucune possibilité de contrôle

10/x/9 : Titre comme chaîne de caractères sur 14 octets pour les playlists, info supplémentaire pour des programmes radio

10/x/10 : Artiste comme chaîne de caractères sur 14 octets pour les playlists, station radio pour les programmes radio

10/x/11 : Album comme chaîne de caractères sur 14 octets pour les playlists, station radio pour les programmes radio

10/x/12 : Titre suivant pour les playlists lors d'un télégramme MARCHE

10/x/13 : Titre précédent pour les playlists lors d'un télégramme MARCHE

10/x/17 : Station radio sélection relative : avec un télégramme MARCHE, émetteur suivant, avec un télégramme ARRÊT, émetteur précédent. Lorsqu'une playlist a été Sélectionnée, celle-ci est interrompue par le programme radio.

10/1/18 : Station radio sélection absolue (1 octet) : par les valeurs 1 à 5 a lieu le choix direct de la station radio déposé. Avec 0, la zone est arrêtée. Si une playlist a été sélectionnée, celle-ci est interrompue par le programme radio. L'adresse de groupe permet également l'insertion de la station radio dans une scène.

10/x/19 : Confirmation de la station radio actuel (pas en cas de zone groupée)

B. realKNX Server

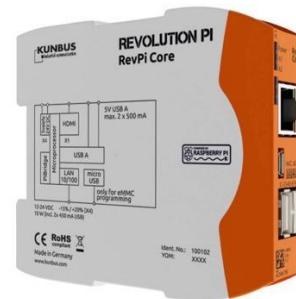


I. realKNX Air

a. Presentation

The realKNX server extends the proServ with additional functionality. The realKNX server retrieves the configuration data from the proServ. The proServ is assumed to be configured from ETS via the proServ database.

Therefore, realKNX configures itself based on the configuration data of ETS.



It is important to know that after each download of the proServ, you will need to restart the realKNX server. The changes in proServ changes will only be applied after a restart of realKNX server.

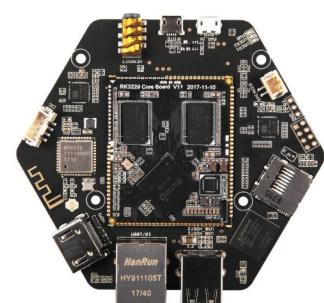
b. Connection

- ➔ realKNX Server must be connected to the 24VDC network with the supplied cable.
- ➔ It must also be connected to the LAN port 1 via an Ethernet cable

II. realKNX O-two

a. Presentation

For the realKNX O-two everything that has been said above is true. The difference is been made by how the product presents itself. Instead of having one speaker/microphone and a server separated, it is built in the same block. This product is supposed to be embedded in the wall or in the ceiling. It is ideal for hotel and conference rooms.



b. Connection

Careful:

- ➔ Unlike the realKNX Air, the realKNX O-two must be connected to a **5VDC** power cord
- ➔ It must also be connected to the LAN for the installation, later with it will be possible to connect it via Wifi.

III. IP Address

The device is shipped in DHCP mode and requires a fixed IP address in the network. Scan your network for the realKNX Server IP address, and then follow these steps:

- Open a web browser
- Type the realKNX Server IP address
- Log in with admin: admin
- Select "Control Panel" menu
- Select Connectivity -> Network -> Network interface -> Lan 1
- Edit -> Manual Setup
- Restart the realKNX Server (from top right menu) and wait for 5 minutes

IV. Home page

The realKNX Home page is the main configuration page.

To access it, enter the following address in a web browser : <http://find.proknx.xyz>

[AdresseIP-realKNXServer]:3000

realKNX

☰

Core

ProServ

realKNX

Remote Connect

Voice control

HomeKit

Alexa

Google Home

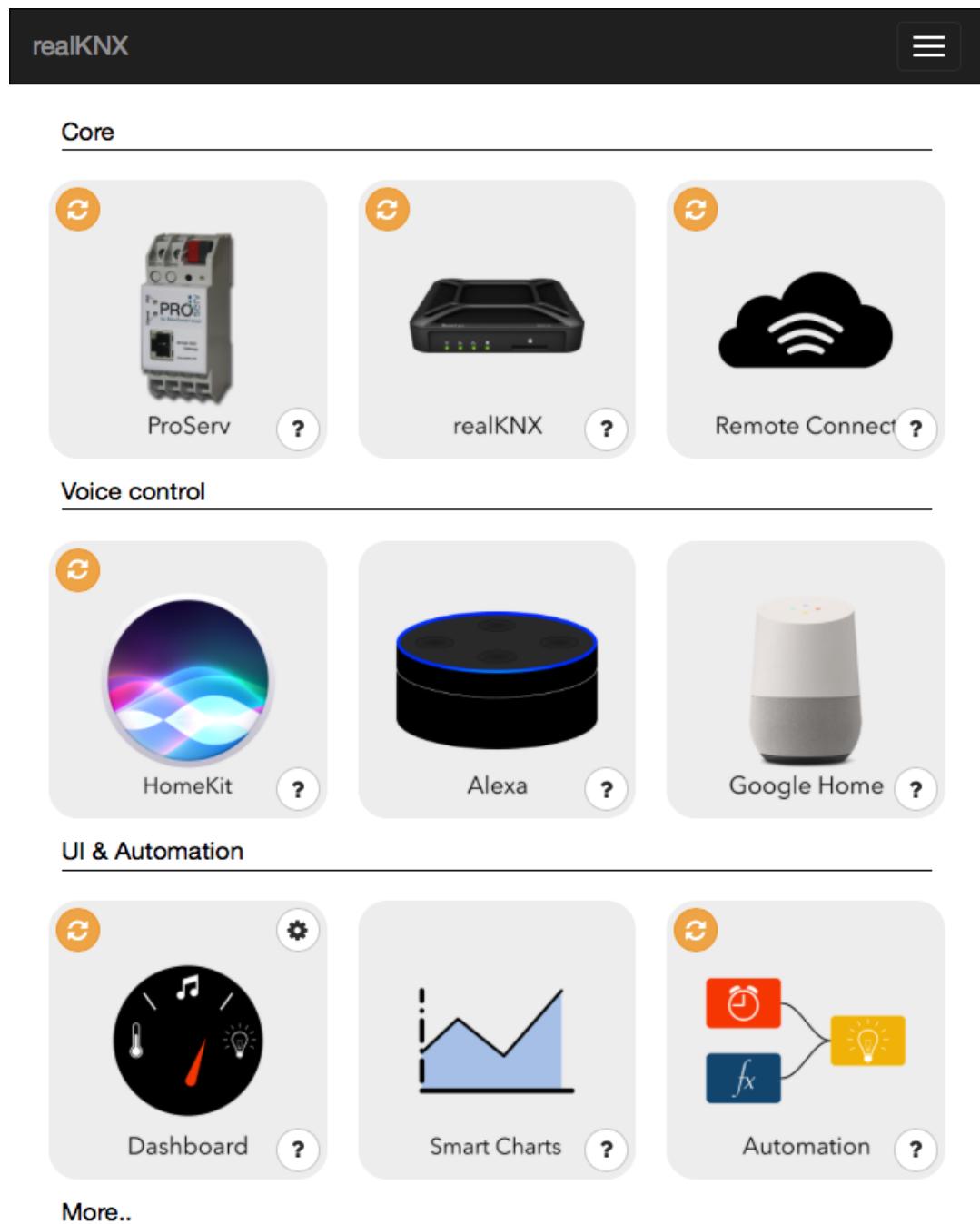
UI & Automation

Dashboard

Smart Charts

Automation

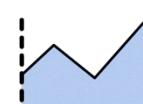
More..



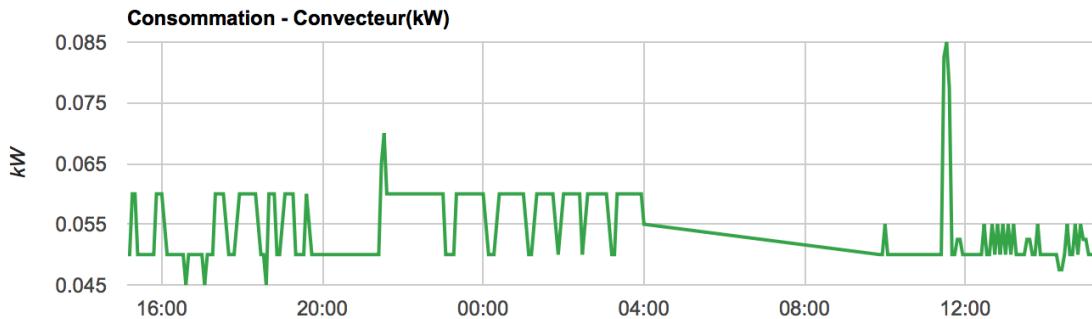
The image shows the realKNX mobile application interface. At the top, there is a header with the text 'realKNX' on the left and a menu icon (three horizontal lines) on the right. Below the header, there are several sections represented by cards, each with an icon, a title, and a help icon (a question mark inside a circle). The sections are: 'Core' (ProServ, realKNX, Remote Connect), 'Voice control' (HomeKit, Alexa, Google Home), 'UI & Automation' (Dashboard, Smart Charts, Automation), and 'More..'. Each card has a circular refresh icon in the top-left corner and a gear icon in the top-right corner. The 'Smart Charts' card is highlighted with a dashed border.

V. proServ Tools

a. Smart Charts



The LogView tool is used to present recorded (logged) value in a graphical user interface. The logging of data is automatic and is configured in proServ with ETS.



The recording of series of values is supported for the proServ functions "State", "Control" and "Thermostat". When a weather station is activated, the meteorological data are also recorded (without the input of control characters).

To allow the recording of values of a proServ function, simply add a "#!" in the proServ function designation. This control character is not displayed in the visualization.

After a download of the proServ, it is necessary to restart the real KNX Server !

Exemple :

1.1.1 KNX-proServ > Zone 2		
KNX-proServ réglages IP	Fonction 16	Désactivé
Sélection des zones	Thermostat	<input type="radio"/> Désactivé <input checked="" type="radio"/> Activé
Zone 1	Type	Thermostat ? et mode de fonctionnement en bit
Zone 2	Nom	Thermostat#!
Global functions	Profiles	Admis pour tous les utilisateurs
Mots de passe pour profiles	Scène A	<input checked="" type="radio"/> Désactivé <input type="radio"/> Activé
Associations	Scène B	<input checked="" type="radio"/> Désactivé <input type="radio"/> Activé
Paramètre		

b. Scheduler



Kitchen /// Ceiling

<input type="checkbox"/> ON :	Chaque semaine le lundi-vendredi à 08 : 00
<input type="checkbox"/> OFF :	Chaque semaine le lundi-vendredi à 21 : 00

With the Scheduler tool, you can automate your KNX installation. For instance, you can switch lights, turn on a pump and or change comfort mode automatically at a time of day, week, or month.

Scheduling is available for the following proServ functions:

- Switching
- Variation of light intensity
- RGB separate objects
- RGB Combined / Switching Objects
- RGB combined / variation
- AUX - switching
- AUX - 8 bits without index
- All functions of Venetian blinds
- Room temperature controller, switching in an operating mode:
 - Bit operating mode (*switching between comfort and eco*)
 - Mode of operation in byte (*switching between comfort and night, however only if the comfort or night mode is selected beforehand so that in standby or frost protection the comfort / night switching program is deactivated automatically*).

To activate a proServ function from the scheduler, add #t to the proServ function title. The #t control characters are not displayed in the visualization.

After a download of the proServ, it is necessary to restart the real KNX Server !!!

Exemple :

1.1.1 KNX-proServ > Zone 1		
KNX-proServ réglages IP	Fonction 1	ON / Off
Sélection des zones	Nom	Ceiling#t
Zone 1	Profiles	Admis pour tous les utilisateurs
Zone 2	Fonction 2	Désactivé
Global functions	Fonction 3	Désactivé
Mots de passe pour profiles	Fonction 4	Désactivé
Associations	Fonction 5	Désactivé
Paramètre	Fonction 6	Désactivé

VI. remoteConnect



Remote Connect is a built-in feature in realKNX Server that allows you to easily connect to your realKNX when you are not connected to the home Wi-Fi. Indeed, it will not be necessary for you to open redirect ports or create a VPN connection. Necessary for Google HOME et Alexa

a. Required configuration

- proServ connected and programmed by ETS
- realKNX Server logged in for more than 5 minutes
- Connection internet

b. Mise en service

1. Send us an email to get your credentials at the following address:
remoteconnect@proknx.com

→ End User mail :
→ End user password: (8 characters, Shift, Lowercase + Numbers)

2. If you wish to change your password, please click on "Forget my password", then you will receive an email to proceed with the change.

c. remoteConnectID

The login URL is created automatically. Please click on this link and connect with login credentials.

d. Function of remoteConnect

- Google Home
- Alexa
- Dashboard
- iKnix2
- Charts
- Augmented Reality
- Reboot system

VII. HomeKit

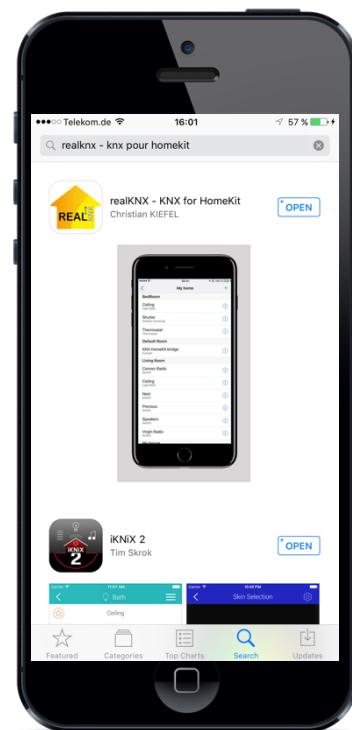
Use the voice command via Siri® to control your KNX devices. The realKNX serves as a bridge between a KNX network and the iPhone and iPad devices. The latter allow for voice control, powerful automation, including geolocation and a variety of traditional applications.

a. Prerequisites

- proServ connected and programmed by ETS
- realKNX Server logged in for more than 5 minutes
- iPhone or iPad for the end user (with these Apple IDs)
- Internet connection

b. Application realKNX

For a commissioning, please download the application "realKNX - KNX for HomeKit" from the Apple Store.

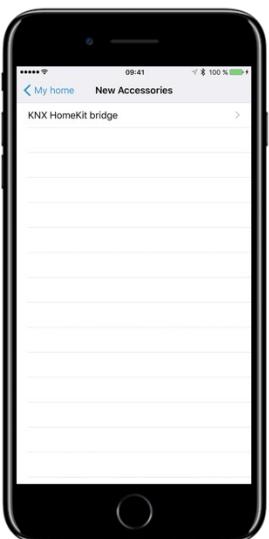


C. Commissioning

Please bring the end-user phone.



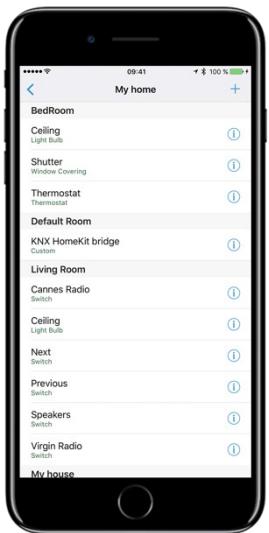
Step 1: Open the realKNX application and create a house by pressing the "+" at the top right.



Step 2: Select your home and click on the "+" at the top right to add an accessory. Subsequently, you will have to type the matching code.



111-22-333



Step 3: Configuration complete! All proServ functions are now integrated into our application. As a result, voice commands with Siri are now possible

d. Voice commands with Siri

Control of lighting

- General :
 - Turn lights on / off
 - Turns the lights on in {ZONE}
 - Are the lights switched on?
- Individual circuit ON/OFF :
 - Turns ON / OFF the {FUNCTION} in {ZONE}
 - Is the {FUNCTION} on in {ZONE}?
- Individual circuit diming:
 - Set the {FUNCTION} in {ZONE} to 50%
 - Set the {FUNCTION} in {ZONE} to 75%

Control of motors

- General House :
 - Opens/Closes shutters
- Individual circuit :
 - Opens / closes the pane in the {ZONE}
 - Raise / lower the 10% shutter in {ZONE}
 - Set the pane in the {ZONE} to 20%
 - What is the position of the pane in {ZONE}?

Control of thermostats

- General House :
 - Set heating/cooling/thermostat
 - Turns off heating/air conditioning/thermostat
- Thermostat individual :
 - Set heating/cooling/thermostat in {ZONE} to 21°C
 - Increase/decrease heating/cooling/thermostat in the {ZONE} to 3°C
 - What is the temperature in {ZONE}?

Commande Divers

- Opens/closes the gate (**Aux-Toggle**)
- Active {SCENES} in {ZONE} (**Aux-1byte**)



e. Remote control and automation

By adding an Apple Tv (4th generation), configured with the same Apple account as the one of the pairing, as well as in the same Lan network as the realKNX Server, you will have a remote connection with nothing to do.

This same Apple Tv will also allow you to do automations like:

- Geolocation
- Programmable clocks
- Logic according to state

For more information, please visit this site:

f. Share control of your home

You can invite others to control your accessories if they use iOS 10 and are connected to iCloud. To share control of your accessories, you must either be at home or have an Apple TV set up in your home.

To invite others:

- Open the Home app and tap the Home tab.
- Touch in the upper left corner.
- Touch Invite.
- Enter the Apple ID that the person uses for iCloud.
- Touch Invite.

The recipient receives a notification in the House app on his device.

To accept an invitation:

- Open House and tap
- Touchez Setting Homes
- Touch Accept and then Done.

g. Solutions

➤ I can not find the accessory "KNX HomeKit Bridge" when I want to do a match:

1. Verify that you are on the same Ethernet network as the realKNX Server
2. Verify that the IP address of the proServ is correct:
http://<IP_address_realKNX_server>:8081/proserv/settings.html
3. Restart realKNX Server
4. After 5 minutes, open **[AdresseIP-realKNXServer]:3000/#homekit** then select "Reset KNX HomeKit Bridge Server"

➤ Unable to pair with "KNX HomeKit Bridge":

1. Restart realKNX Server
2. Remove the home from the "Home" application
3. After 5 minutes, open **[AdresseIP-realKNXServer]:3000/#homekit** then select "Reset KNX HomeKit Bridge Server"
4. Create new home then try again the pairing

➤ I can not find the "Reset KNX HomeKit Bridge Server" button:

1. Please send us an e-mail to the following address:

➤ I don't want to display a feature on HomeKit:

1. Please add a "#h" in the name of the proServ functions that should not be displayed.
2. Restart the realKNX Server after downloading the proServ

➤ The application "House" is very long, what to do?

1. We recommend that you use our "iKnix2" application for a standard button control.
On the other hand, the application "Eve" is very good too.

h. Various information

- You must have iOS 10-11 on your Apple devices.
- HomeKit Bridge has a limit of 99 functions. If you have more functions, please delete it with an #h in proServ.
- Do not use special characters or abbreviations for better speech recognition.

VIII. Amazon Echo



Use the voice command via Alexa® to control your KNX devices. The realKNX Server acts as a bridge between a KNX network and the Amazon Echo. The latter allow voice control on a casing connected continuously in your home.

a. Prerequisites

- proServ connected and programmed by ETS
- realKNX Server logged in for more than 5 minutes
- Amazon Echo, or Echo Dot
- Internet connection

b. Application ALEXA

For a commissioning, please download the application "Amazon Alexa" on the Apple Store then follow the indications on the screen



c. Commissioning

After completing the installation of your Amazon Echo on the same network as your realKNX Server, you are able to start your system:

1. Indeed, please say: "Alexa, discover devices"!
2. 30 seconds later, Alexa is supposed to give you the numbers of equipment that are in the network.

If you have multiple Amazon Echo with the same Amazon account in your installation, you do not need to re-commission.

d. Voice commands with Alexa

Control of lighting

- General: (For general orders, you must create a group in Smart Home, see here)
 - Alexa, lights up {ZONE}
 - Alexa, light switches lounge {ZONE}
- Individual circuit ON/OFF:
 - Alexa, turns the {FUNCTION} on {ZONE}
 - Alexa, Eteins the {FUNCTION} in {ZONE}
- Individual circuit Diming:
 - Alexa, Set {FUNCTION} in {ZONE} to 50%
 - Alexa, Set {FUNCTION} in {ZONE} to 75%

Control of engines

- Général:
 - Opens the {ZONE} pane,
 - Close shutter {ZONE}
- Individual circuit:
 - Turns on the shutter in {ZONE}
 - Turn the shutter off in {ZONE}
 - Set the pane in the {ZONE} to 20%

e. Function Group

Alexa does include general functions. That's why we have to create groups. To do this, please follow these steps:

1. Log in with your credentials to your Amazon Alexa account. (or Apple app)
2. Getting to Smart Home
3. Click "Create Group"
4. Select the channels of a {ZONE}
5. Give the name "light {ZONE}"
6. Save at the bottom of the page

Repeat this for each part to allow general control of the part.

f. Solutions

➤ Alexa can not find any equipment (step 1):

1. Make sure that Alexa is connected to the same Ethernet network as realKNX Server
2. Verify that the IP address of the proServ is correct:
3. Restart the realKNX Server
4. After 5 minutes, open and select "Reset KNX Alexa Bridge"
5. Redo an equipment discovery with Alexa after the reset completed!

➤ Alexa can not find any equipment (step 2):

1. Open
2. Go to "Bridge Control"
3. Verify that the UPNP IP address matches that of the realKNX Server!
4. If it is not, replace it and save on the green button!
5. Re-discovering equipment with Alexa
6. Please email us at the following address if it still does not work:

IX. Google Home



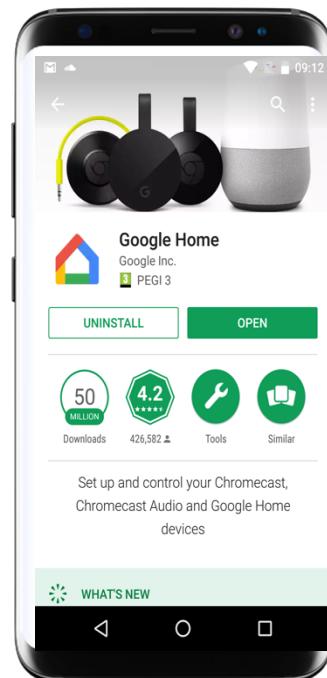
Use the Google Home® voice command to control your KNX devices. The realKNX Server acts as a bridge between a KNX network and Google Home. This allows voice control from a connected speaker or from your smartphone with the Google Wizard.

a. Prerequisites

- proServ connected and programmed by ETS
- realKNX Server logged in for more than 5 minutes
- remoteConnect
- Internet connection

b. Application Google Home

For a commissioning, please download the application "Google Home" on the Apple Store/Google Play then follow the indications on the screen

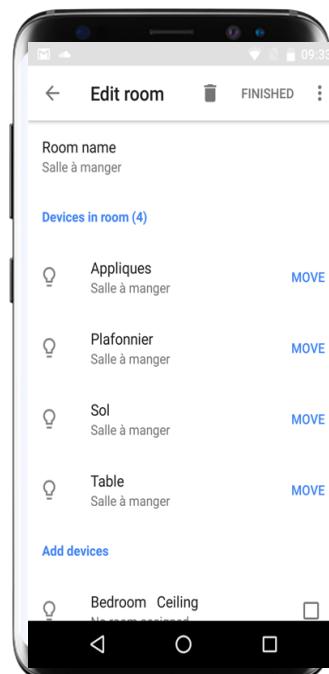


C. Commissioning

1. *Follow Google Home instructions for commissioning*
2. Go to the Google Home app and then go to the menu, then click on the "Home Control" submenu.
3. You can now return to the application and press the blue + button
4. Select realKNX, press "Pair" and use your ID for remoteConnect
5. Once the pairing is completed, you will have to assign the accessories to the corresponding parts.

ROOM

Create your room
 Select the accessory
 Click on « Finished »



d. Voice commands with Google Home

Control of lighting

- General
 - Ok Google, lights up {ZONE}
 - Ok Google, light switches lounge {ZONE}
- Individual circuit ON/OFF :
 - Ok Google, turns on {FUNCTION} on {ZONE}
 - Ok Google, turns off {FUNCTION} in {ZONE}
- Individual circuit Diming:
 - Ok Google, Set {FUNCTION} in {ZONE} to 50%
 - Ok Google, Set {FUNCTION} in {ZONE} to 75%

Control of thermostats

- Thermostat individual :
 - Set the temperarute in {ZONE} to 21°C
 - Increase/decrease thermostat in the {ZONE} to 3°C
 - What is the temperature in {ZONE}?

e. Solutions

- Google can not find any equipment (step 1):
 1. Make sure that Google is connected to the same Ethernet network as realKNX Server
 2. Verify that the IP address of the proServ is correct in realKNX Server :
[http://\[AdresseIP-realKNXServer\]:8081/proserv/settings.html](http://[AdresseIP-realKNXServer]:8081/proserv/settings.html)
 3. Restart the realKNX Server
- Google can not find any equipment (step 2):
 4. Make sure that Google is connected to the same Ethernet network as realKNX Server

x. Snips (Air)



The integration of the KNX function and the structure of the house with Snips allows offline voice control without any internet connection. The privacy is guaranteed, what you say stays in the room. And at the same time the vocabulary isn't limited: you can choose the room and function names. To operate the system no need of a smartphone or a tablet. It's ideal for hotels, conference rooms and boats.

a. Meaning of "offline":

Snips is Open Source. So, we can guarantee that nothing you will say will leave the room and finish on the web.

Offline also means, no automatic updates which could modify functions of the installation. A configurated system is autonomous over year. The functions of the system cannot be modified by a third-party software.

The connection to internet is nevertheless recommend once for the installation of the system. To update the software, the voice assistant and the language evaluation. The internet also allows the optional using of powerful Text to Speech machines. The offline TTS has only one voice and which is very robotic. The choice of the TTS is possible in the following installation.

b. Activation of Snips

When Snips is delivered it's already activated.

Should Snips have been disabled once, it is possible to reactivate it by selecting the check mark, this requests the Snips Authoken (license). Further configurations are enabled on clicking on "Show/hide advanced settings".

Configuration of the Snips voice control system

Enable Snips

[Get Snips AuthToken](#)

[Restart Snips](#)

c. Snips Core

1. Snips Core

Status: Core is installed and running

Snips Core: [Click here to Install Snips Core](#)

Snips Core is a program. By clicking on the link, you download it.

d. Snips Assistant

2. Snips Assistant

Status: Assistant installed.

Select Assistant Model:

German

[Click here to Install Snips Assistant](#)

The Snips Assistant is a configuration which allows the Core to interpret the spoken words. The Assistant decides if it is a command, a function name or room name. He is available in English, German and French.

The assistant is regularly updated. **We recommend installing it again when you install the system.**

- **Important note:** If words/commands/rooms are not understood correctly we will help you and add them to the system. Please write us an e-mail with whatever you want to add to support@proknx.com

e. Speaker/microphone unit

With Snips only the Jabra Speak 410 MS is working. With our optional adapter it is possible to connect it to Ethernet (wired or Wifi). But it is also possible to connect it directly to the realKNX Server via USB.

- When Jabra Speak is connected via USB system problems are announced over the speaker.
- By using the adapter, it is possible to define the speaker/microphone to a room. This allows to simplify the commands, without saying the room name in which he is defined.

The installation of the Satellite should be done as explained on the realKNX Server web page.

f. Snips application

The Snips application is the Node-RED flow, who translates the commands understood by the Assistant in order to drive the KNX installation over the proServ.

If you want to use Snips the application must be installed. For the installation all the open Node-RED windows must be closed.

Please don't change anything in the flow.

4. Snips Application

Step 1. Close all Node-RED windows.

Step 2. Select Model:

SNIPS Node-RED Application

Step 3.

[Click here to install 'Snips action handler' to Node-RED](#)

g. Text to Speech

As already mentioned above, the offered TTS engine is “Polly”, which is available for free on the internet. So, the answers given by the Jabra sounds more natural.

- Even by using the online TTS nothing you said will end up in the internet. The engine only gets the text output, which is then spoken via the loudspeaker. If this is not desired, it is possible to deselect Polly.

5. Snips Voices & Sound feedback

- Silent Mode: do not play a confirmation sound when hotword is detected
- Voice: Use online service (Amazon Polly TTS, requires internet connection)

Select Polly Voice Model:

German - Vicki

[Click here to activate this voice](#)

h. Troubleshoot

Over this link it is possible to see the words and sentences understood by snips on your computer or smartphone.

6. Troubleshoot

Snips Web Admin:

[Click here to Open Snips Watch](#)

i. Commissioning

1. Configure the proServ on the local network
2. Configure the realKNX Server as explained above, restart and on over 2 minutes

j. What do Snips understand?

Operation of lights

- In general:
 - Turn on/off the lights (if you have a Satellite only the lights in the defined room are operated)
 - Turn on/off the lights in the {ROOM}
 - Turn on/off the lights everywhere
 - Is the light turned on/off?

- Operate single lights
 - Turn on/off the {FUNCTION} in the {ROOM}
 - Is the {FUNCTION} turned on/off in the {ROOM}?
- Operate the dimming function
 - Set the luminosity of the {FUNCTION} in the {ROOM} on 50%
 - Make it brighter in the {ROOM}

Shutter operation

- In general:
 - Open/close the shutters
- Operation of single shutter
 - Open/close all the shutters in the {ROOM}
 - Open the shutter in {ROOM} to 20%
 - How are the shutters in the {ROOM}?

Operation of the heating

- In general:
 - Set the the temperature to 24° in the whole house
- Operation of single heaters
 - Set the thermostat of the {ROOM} to 21°
 - Raise/lower the temperature in the {ROOM} of 3°
 - What is the temperature in the {ROOM}

Scenes

- Activate {SCENE} in the {ROOM}

List for function and room names

Today the dynamic word adding works nevertheless if it doesn't work as expected we can add the name you want. Just write us to snips@proknx.com

Careful: For voice control only, the commands of the document are available
https://proknx.com/realknx/download/pdf/Function_realKNX.pdf

xi. Dashboard



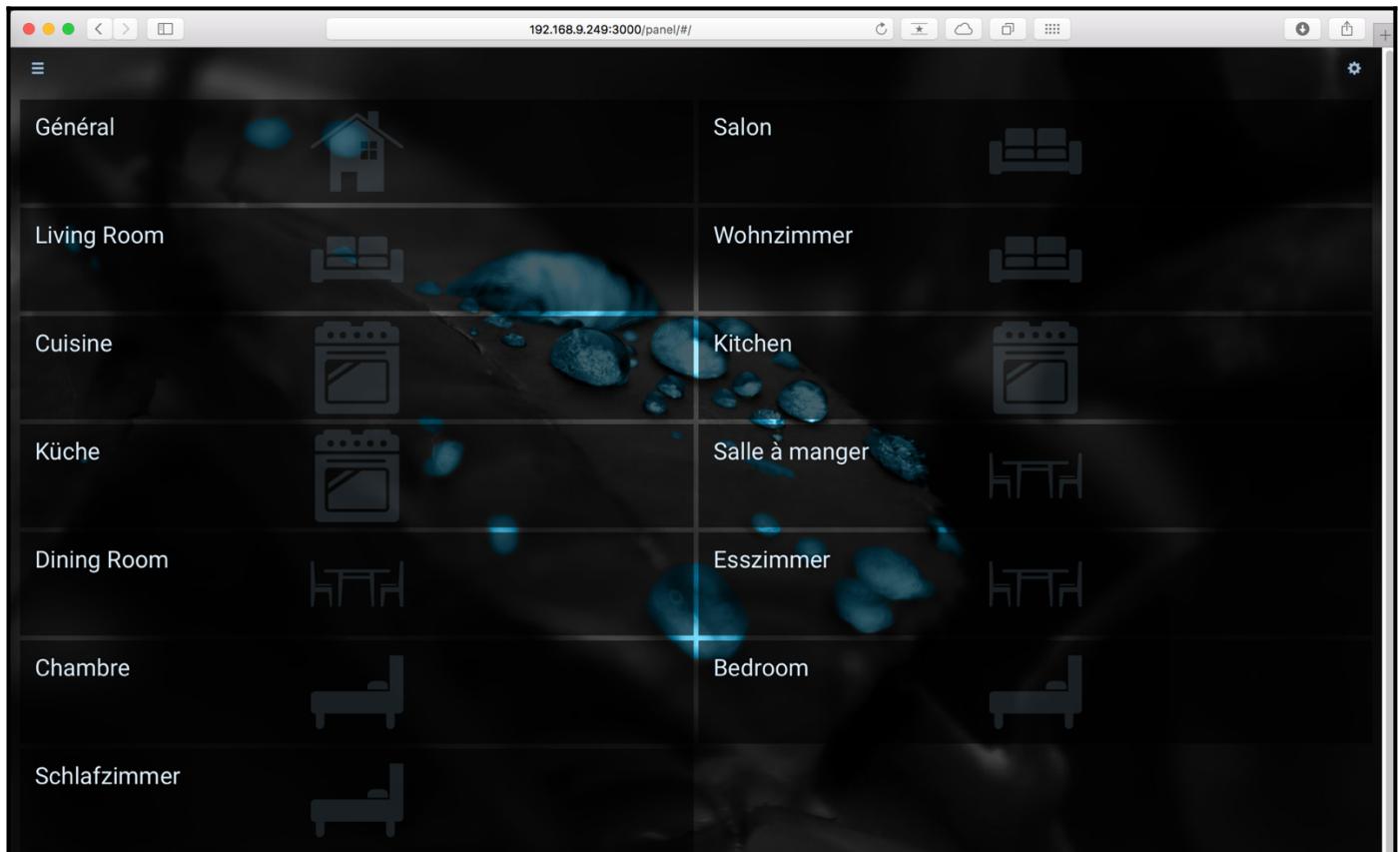
The Dashboard is a supervisor that works with a web browser. Indeed, it will allow you to order your home from your computer. No configuration is required even if you can customize the buttons.

a. Prerequisites

- proServ connected and programmed by ETS
- realKNX Server logged in for more than 5 minutes
- Computer with Chrome, Firefox ou Safari

b. IP Address

Please login to this address: *[AdresseIP-realKNXServer]:3000/panel*



c. Button Size

Depending on your display, you can choose the size of your buttons. Indeed, it is likely that the buttons are too big for a small screen. To change the size of the buttons, please follow these steps:



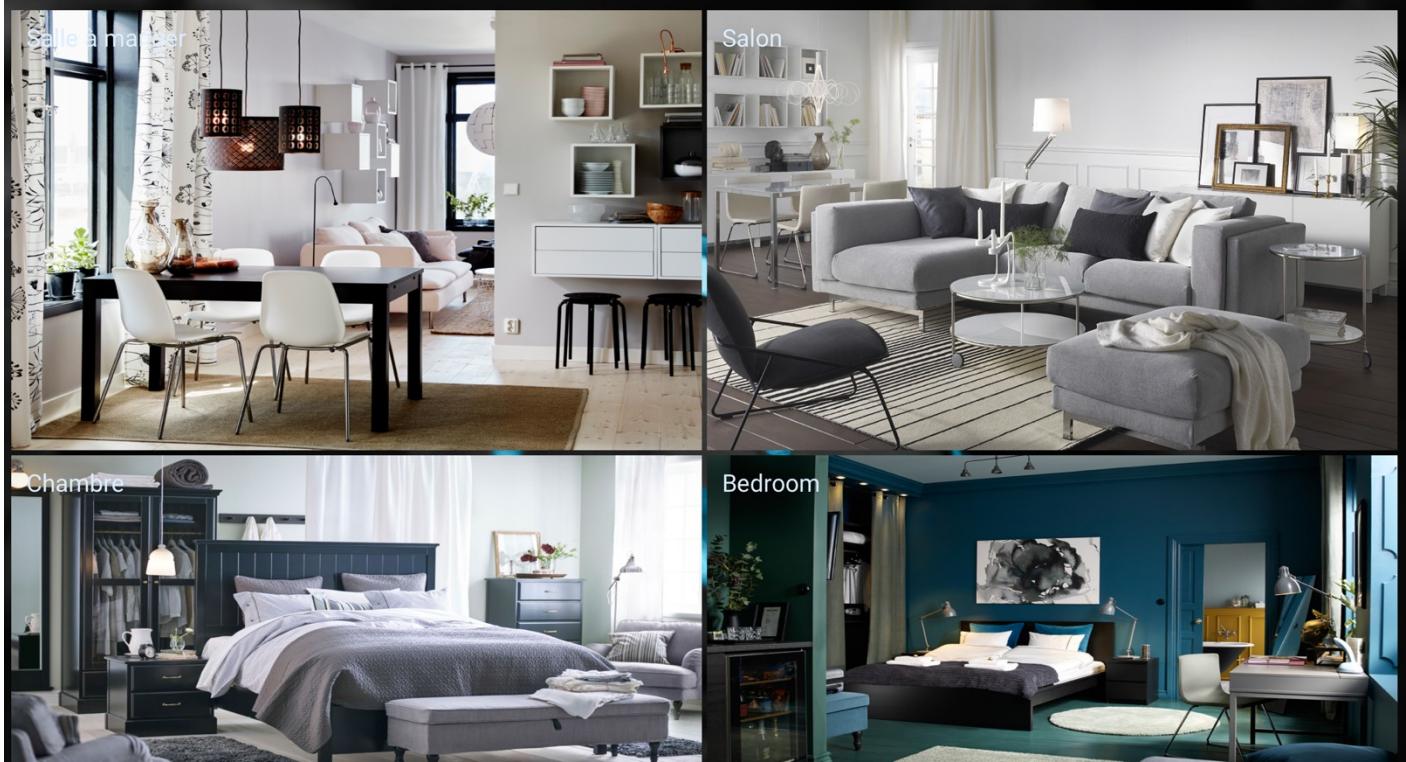
1. Click on the top left.
2. Below the date, open the settings 
3. You can now choose between Large and Small

d. Customizing homepage images

It is possible to customize the background of your parts when you are in the general menu of the Dashboard. To do this, please follow these steps:



1. Click  on the top left and then go to 
2. Click on the top right.
3. Again, click  but on the button of your room.
4. And in « **Background Image URL** », please:
 - Write a URL link to an http image



- Or copy the images (.jpeg) into the public folder on the realKNX-14-xx (admin-admin) and then write the following link "/public/bedroom.jpg" for example.

e. Customizing the Background Image

The background image will be the same all the time. You can change it without any problems in this way:



1. Click on the top left
2. Below the date, open the settings
3. And in « **Background Image** » on the right, please:
 - Write a URL link to an http image
 - Copy the images (.jpeg) into the public folder on the realKNX-14-xx(admin-admin) and then write the following link "/public/background.jpg" for example.

f. Choice of Appearance Theme

There are 4 types of appearances. This allows you to customize your Dashboard. Here is the procedure for easily changing themes:



1. Click on the top left
2. Below the date, open the settings
3. And in "**Theme**" on the right, please choose between:
 - Default
 - Material
 - Material Dark
 - Pale Blue
 - Translucent

g. Name of the Dashboard

It is necessary to rename the name of your Dashboard



1. Click on the top left
2. Below the date, open the settings
3. Dans « **Panel name** », sur la partie droite, veuillez écrire le nom de votre installation.

h. Editing the proSev and resetting the Dashboard

When a change is made in the proSev, realKNX Server must be restarted. In addition, you must reset the dashboard to retrieve the changes. **Attention, you will lose the whole of the old configuration !!!!**



1. Click on the top left
2. Below the date, open the settings
3. On the right side, press « **Reset Large and Small** »

XII. Automation



Automation

We use the Node-Red graphical programming language which will allow automation and logic functions for the KNX. This programming language is very simple. Our realKNX node retrieves all proSev information and therefore does not require any additional programming except for the proSev performed by ETS.

a. Prerequisites

- realKNX Server logged in for more than 5 minutes
- proSev connected and programmed by ETS
- Internet connection

b. Node realKNX

The realKNX node is installed by default in Node-RED when realKNX is delivered.

c. Connection to Node-RED

Please click on "Automation" in the [Home Page](#)

Default login : admin/admin

d. Exemple

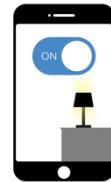
In the Node-red menu, you can click on "ProKNX Library" to obtain configuration examples (or else <https://proknx.com/automation-with-node-red/>). You can copy the source code and import it into Node-Red. You only need to change some settings.

e. Customizing the nodes

Node-Red is an open source tool, there are thousands of nodes to communicate very easily with other protocols or other principally.

To do this, please go to the menu Node-Red (Hamburger top right ..) and click "Manage Palette". From there, you have access to all the nodes that are currently installed but by clicking on "Install" you can perform a search like "Google Maps". It's up to you to discover your limits ...

XIII. Augmented Reality



Augmented Reality

The augmented reality will allow to launch actions on the KNX from your KNX camera.

a. Configuration require

- realKNX Server logged in for more than 5 minutes
- proServ connected and programmed by ETS
- Internet connection

b. Complete notice

Please open this pdf file where you will find the complete documentation :

http://www.proknx.com/web/fr/realknx/augmented_reality/doc.zip

XIV. Appendix

a. HashTags (#) and how they are used

Many configuration options are possible via additional textual information in the proServ product database. These are entered in the corresponding text fields of different parameters via so-called hashtags. The hashtags are appended to the text and are not displayed in the visualization. Unless stated otherwise, after the first hash sign #, further abbreviations can follow without reentering the #.

Field/Menu	HashTag	Description	Result
Device name/ KNX proServ IP settings	#x#y	Use multiple proServ in one installation. This proServ is the x of y in total. In addition, proServ fixed IP addresses have to be assigned in the same order as defined here.	iOS app iKnix2: The user interface shows one large installation that is defined by several proServ.
Name / Zone x	#c	Repeats the transmission of the command in short intervals as long as the key is pressed	iOS and Android Apps: command "AUX 8bit unsigned"
Name / Zone x	#f	The button is shown as activated as long as the assigned group address has the same value than the value of the requested function	iOS and Android Apps: command: „AUX 1bit ON“, „AUX 1bit OFF“, „AUX 1byte unsigned“
Name / Zone x	#h	Function is not read in the realKNX server	realKNX Server
Name / Zone x	#k	Function is not used for HomeKit. The limit of 100 functions for HomeKit can be reduced to the essential functions	Function is used for all applications of the realKNX server, except HomeKit
Name / Zone x	#l	Function (data point) is released in the realKNX server for data recording	Data point is released in the realKNX server for display in SmartCharts, LogView and proServ Expert (HabMin)
Name / Zone x	#m	When activated, an e-mail is sent via the realKNX server	State 1bit high activ, State 1bit low activ
Name / Zone x	#t	Function is released in the realKNX server for the scheduler	Details under Scheduler

b. Special entries in the URL schemes

Die [URL schemes](#) ermöglichen zum einen, einen Link auf eine bestimmte Applikation oder Browser Seite zu definieren, der über eine Taste der UI aufgerufen wird (Funktion „AUX-URL“).

scheme“). Zusätzlich werden aber auch folgende Konfigurationen im Text Format ermöglicht.

Text in einem URL scheme	Auswirkung
#SONOSX#<IP_Adresse_realKNX_Server> #<Identifikation SONOS_Zone1> #<Identifikation...	Detailinformation in der Sonos Beschreibung
#RADIO#<Name_Radiosender1> #<Name_Radiosender2>#<....	Detailinformation in der Sonos Beschreibung
#ALTIP#<IP_Adresse_proServ>	Detailinformation in der Sonos Beschreibung
#ALTIP#<public_IP_Adresse_der_Installation>[#publicport] z.B. #ALTIP#myknxinst.dyndns.org#12345	Zugriff für iKnix Apps von ausserhalb des LAN. Die public IP kann eine feste öffentliche IP Adresse oder auch eine DynDNS Adresse der Installation sein. Im Internetrouter ist die TCP-Portweiterleitung von <i>publicport</i> auf 12004 vom proServ einzurichten. Wenn die Apps im lokalen Netz keinen proServ finden, wird diese Adresse aufgerufen. Bei Anwendung sollten alle „Passwörter für Profile“ festgelegt werden.
#EXTIP#<remoteConnect ID>	Bei Verwendung des realKNX Servers und Aktivierung von remoteConnect finden die iKnix Apps den proServ ausserhalb des LAN auch ohne feste öffentliche IP oder Portweiterleitung.
realknx://<IP_Adresse_realKNX_Server>:3000	In der iKnix2 App wird die Zone „realKNX“ hinzugefügt. Bei Auswahl wird die Smartphone Kamera aufgerufen und die Erkennung über Augmented Reality aktiviert.
realknx://<IP_Adresse_realKNX_Server>:3000	Bei Funktionsauswahl „AUX-URL scheme“ wird eine „View“ auf die Webseite des realKNX Servers aufgemacht (nur iKnix2)
proservx://<IP_Adresse_realKNX_Server>:8081/proserv/scheduler.html	Bei Funktionsauswahl „AUX-URL scheme“ wird eine „View“ auf die Webseite der Zeitschaltprogramme des realKNX Servers aufgemacht (nur iKnix2)
proservx://<IP_Adresse_realKNX_Server>:8081/openhab.app?sitemap=proserv-classic	Bei Funktionsauswahl „AUX-URL scheme“ wird eine „View“ auf die Webseite der Kurvenanzeige „LogView“ des realKNX Servers aufgemacht (nur iKnix2)

realnx://<IP_Adresse_realKNX_Server>:3000/index.html#logview	Bei Funktionsauswahl „AUX-URL scheme“ wird eine „View“ auf die Webseite der Kurvenanzeige „SmartCharts“ des realKNX Servers aufgemacht (nur iKnix2)
background://<IP_Adresse_http_server_hintergrundbild>#0.25 Funktionierendes Beispiel: background://www.proknx.com/old/downloads/temp/iknix2_skyline#0.25	Hintergrundbild für iKnix2 App, wobei beim Bildnamen des Hintergrundbildes .png (iPhone) und HD.png (iPad) dann automatisch ergänzt wird. Wenn kein Bild gefunden wird erfolgt keine Anzeige. Der Faktor hinter dem # gibt die Transparenz an.