



JOURNAL

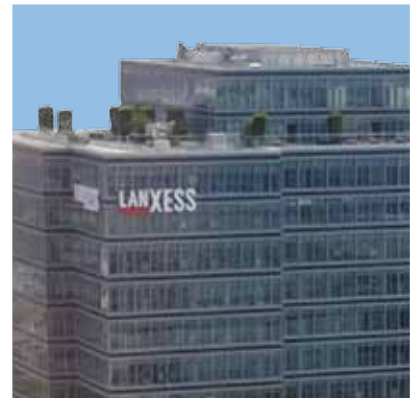
LG became KNX
Member N° 350

MyKNX launched

ETS5 for Experts

Energy Harvesting
with KNX RF

Smart Electric Lyon
with KNX RF

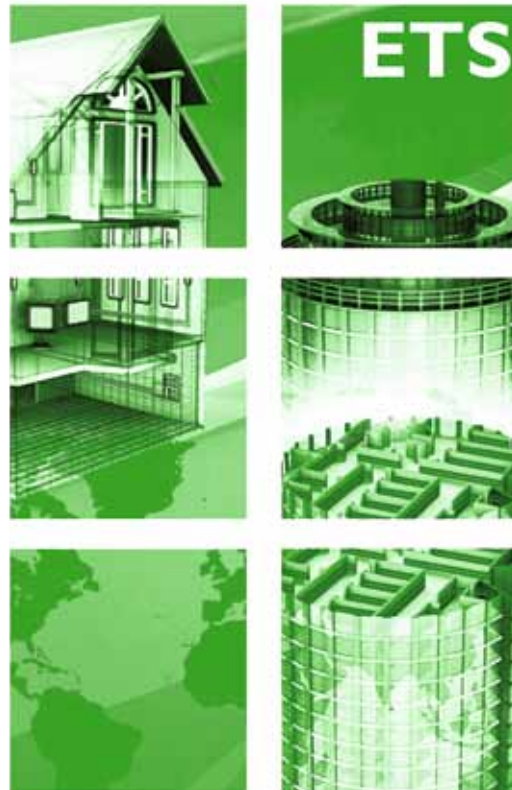


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1
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for home and building control



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ETS5 Professional

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ETS5 Supplementary	150,00 €	For Notebooks, max. 2 licenses, only together with ETS5 Professional
ETS5 Lite	200,00 €	
ETS Apps	see KNX Online Shop	max. 20 products
Upgrade licenses		
ETS4 Pro > ETS5 Pro	350,00 €	
ETS4 Supplementary > ETS5 Supplementary	110,00 €	
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<https://my.knx.org>

Editorial



Heinz Lux,
CEO
KNX Association

How to stay (relatively) risk-free in the jungle

All the great thinkers had one thing in common: before doing anything, they always considered every possible potentially relevant issue. Einstein, Shakespeare, Confucius and the ancient philosophers all wrestled with the topics of love, suffering, passion, loss, safety and security. Take Einstein, for example; if he had been alive today, he might have said about online security: "As far as information and communication relate to the internet, they are not secure; and as far as they are secure, they do not relate to the internet."

What is security? Security is an absence of unjustified risks. Not an absence of all risks, because in a complex system it is impossible to completely eliminate risk. To create a state of security in an information and communication network, when defining security as a core function of an infrastructure, building, or indeed an entire smart city, a professional will therefore always perform a risk analysis. A state of security is created by developing and applying security concepts in order to ensure the resilience – i.e. integrity, reliability and

availability – of data and connections. But even then, security is still only a state of relative freedom from risk, and can only ever exist for a set period of time, or under specific, defined conditions. There is always a residual risk. Risk is part of life. Indeed, it is essential to the progress of humankind.

Over the millennia, man has learnt to deal with risk; if he had not, we would still be living in trees in a jungle. When we left the jungle for the savannah, we were clearly exposing ourselves to a greater risk of being eaten by wild animals. But we found a way of managing this risk. We adapted. We learnt to walk upright, which enabled us to communicate with one another through gestures.

Today we communicate via vastly complex ICT systems. We are no longer at risk of being eaten: we face different risks now, so we need different ways of dealing with them. Those who do not take the necessary precautions (see the KNX Security Checklist) will end up back in the jungle. And in the jungle, everything stands at risk of being gobbled up – including you.

Editorial

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■ KNX welcomes LG Electronics as member no 350!



The spreading of the KNX system, the worldwide standard for home and building control, enshrined in the ISO/IEC 14543-3 series, confirms again the internationalisation of this leading technology. The community around KNX, which is known for its high degree of interoperability between products of different manufacturers and different application domains, was recently proud to welcome the 350th manufacturer joining its ranks, LG Electronics from Korea.



Franz Josef Kammerl, Siemens AG, President of the KNX Association

LG Electronics is a global leader and technology innovator in consumer electronics, mobile communications and home appliances, employing 87,000 people working in 113 locations around the world. With 2013 global sales of USD 53.10 billion, LG comprises five business units – Home Entertainment, Mobile Communications, Home Appliance, Air Conditioning and Energy Solution and Vehicle Components. Furthermore LG is one of the world's leading producers of flat panel TVs, mobile devices, air conditioners, washing machines and refrigerators. As a new member of the KNX Association, the interest of LG Electronics lies in enriching the KNX product portfolio,

which will undoubtedly greatly benefit the further application of the KNX in the area of building control on a domestic Korean, but also on an international level.

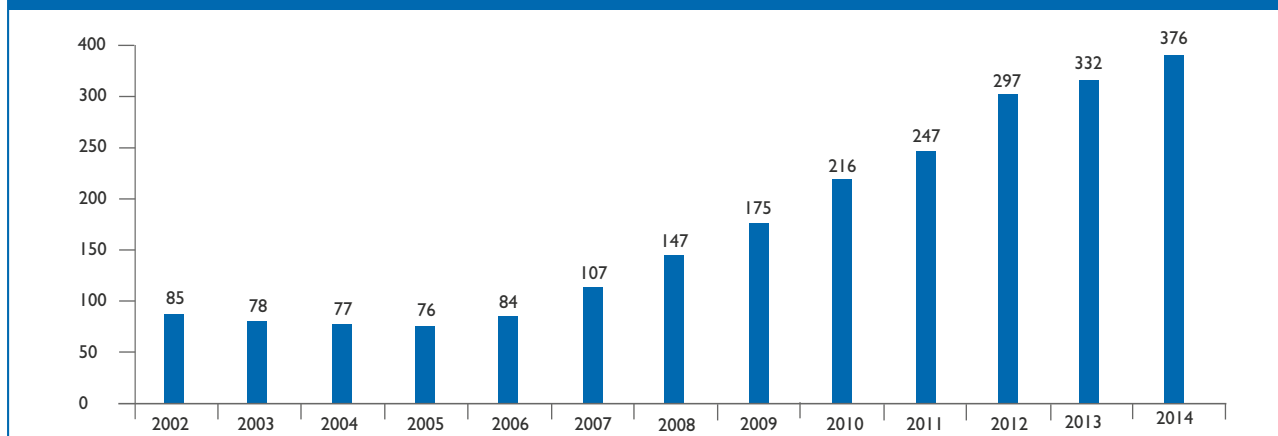
Franz Josef Kammerl, President of KNX Association commented: "LG Electronics is the fifth Korean company to join the KNX Association. But LG Electronics does not only stand for high product quality for any kind of electronics, the involvement in KNX opens a new world for further cooperation on an international scale. Therefore, we are proud about the joining of LG Electronics and calling one of the biggest manufacturers worldwide a part of the continuously growing KNX community."

About LG Electronics

Founded in 1958, LG Electronics is a globally recognized brand leader providing comprehensive lighting solutions to efficiently, effectively, and environmentally support a wide array of lighting requirements. Through LED lighting, LG Electronics continues to enrich lives by offering products that create a more comfortable, enjoyable, and sustainable atmosphere – in the home, office, store, or facility. As a trusted manufacturer, LG Electronics is dedicated to the delivery of quality products and the service that goes with being a global leader in innovation. As an integrated solution, LG Electronics provides LED lighting products, including fixture, lamps, and controls targeted at commercial and residential applications.

Contact: www.lg.com

Evolution KNX members 2002 – 2014



New Website and MyKNX portal launched by KNX

To reflect the rapid global growth in the use of KNX intelligent building and smart home technology, the International KNX Association has invested heavily in its on-line presence with the creation of a brand new web-site and a personal online portal. Moreover KNX will offer more interactive possibilities on these platforms, like for instance an advent calendar contest in December, where the KNX community can win KNX devices and ETS licenses as well as guessing which KNX products are shown.

www.knx.org is the new website for the International KNX Association. It can be viewed in English, German, Dutch, Spanish, French with Italian expected very soon. The structure of the new website is extremely user-friendly and intuitive, with its graphics all contributing to a very dynamic and informative website which is easy to use and continuously updated.

Although the general structure of the site is based on four levels of interaction, users generally can obtain the information they require within just two or three clicks.

The Homepage features a banner (eye-catcher) that is updated monthly. There are many direct links to find KNX Partners, Training Courses, How to Become a KNX Member, Webinars, KNX Devices and MyKNX.

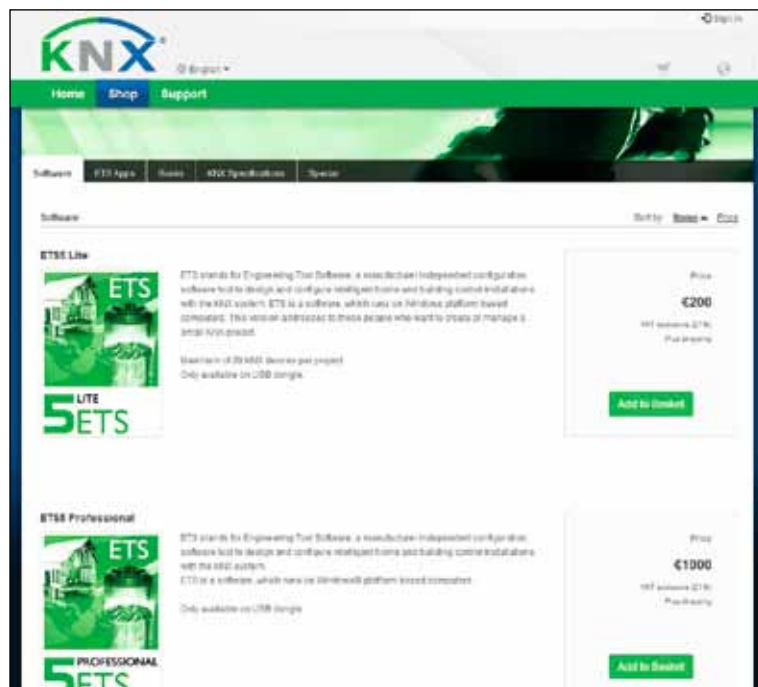
www.knx.org has inspired many KNX National Groups to update their own national websites which show local content. Currently, Germany, Switzerland, Holland are following its layout with a further thirteen sites under construction including Argentina, Belgium, Chile, Spain, India, Ireland, Luxembourg, Middle East, Norway, Finland, Sweden, South East Asia and Uruguay.

MyKNX has been online since the end of September 2014. It also has a new modern and intuitive design to ensure that visitors can access the information they require as quickly as possible. MyKNX provides all those registered, including Customers, Manufacturers, Partners, Training Centres, Scientific Partners, National Groups, Test Labs and User Clubs with the very latest information and documentation. From one central log-in, visitors can access the KNX Online Shop where they can buy or browse information and the prices of the different KNX software packages, books and product specifications.

An Open Support Centre for visitors includes Frequently Asked KNX Questions



The structure of the new website is extremely user-friendly and intuitive.



MyKNX provides all with the very latest information and documentation.

and a new, powerful Support Wizard is available to solve many issues that KNX software users may have. A notification system covering key information about KNX and products provides users with a personalised alerts in their MyKNX account. From the Home Page of MyKNX, users are updated with the latest News and Informa-

tion, hot off the press, including important product launch announcements as well as more general updates on KNX products. To reflect the international audience of KNX technology and users, MyKNX is available in English, German, Spanish, French, Italian, Dutch, Finnish and Swedish versions.

A lesson in eco-friendly refurbishment

France's biggest ever refurbishment project saves millions of euros in energy costs

The purpose of a school building is to create the right conditions for learning, to prepare (generally) young people for a successful future. One element of that is creating a pleasant indoor climate and optimal lighting conditions for students and staff alike. In addition, the school management team wants to keep energy costs as low as possible. Because the building fabric in these buildings is often insufficiently insulated, and because the building services are often fairly old, the energy costs are frequently far too high. Many people now know that – particularly in public buildings – room control systems can considerably reduce consumption of power and heat. Some local authorities have already acted on this knowledge – but none quite as thoroughly as the Paris City Council, with their current programme to improve the energy performance of the city's schools. The initial phase of the programme, which was launched in March 2012, aimed to improve the building fabric and install KNX-based heating control in one hundred school buildings. The target was to make the schools more comfortable to work in, while reducing their energy consumption by 30 percent. The KNX installation was realised by EDF Optimal Solutions, Paris. This project represents yet more compelling evidence of the extent to which the KNX standard – the global standard for home and building control – is gaining acceptance worldwide.



So far, 100 schools and nurseries in Paris have been energy-optimised and connected to a central building management system.

Solutions tailored to individual sites

Saving energy is easy. All that was needed in this instance, for example, was to fit the radiators with KNX valve drives. The command signals for the drives come from the room temperature controllers. The windows are fitted with window contacts, which switch off the heating or switch it to "frost protection" mode when the windows are open. So switching over to KNX-based heating controls wasn't so complicated ... on the whole. But at some of the schools, the building fabric was old, and the technical equipment could barely be controlled at all. In these instances, special solutions were called for. For example, systems were devised to allow old electric heaters to be automatically controlled by KNX according to users' actual needs. For fan coil units, the obvious solution was to fit KNX controllers. In central ventilation systems, the rate of air change was matched to demand through the use of CO₂, temperature and humidity multi-sensors. This allows air change to be controlled fully automatically.

Setpoints are activated by a time profile based on the school's timetable. In those premises where automatic ven-

tilation is not available, warning lights illuminate when the air quality drops below a certain level, to indicate that manual ventilation is required. At those times where there is normally not anyone at the school, teachers can use push buttons to manually extend the time period during which a comfortable temperature is maintained. The installation work at each of the individual schools was not excessive. But altogether, 2,500 bus devices were deployed in 440 rooms covering a total of 200,000 square metres – so the programme as a whole was a very substantial undertaking indeed.

Centralised control for the City Council

An important part of the programme was the networking of the individual sites with one another. The various schools are connected to the City Council's building management system (GTB) via KNX/IP routers. In this way, status and other data can be centrally tracked, archived and evaluated for purposes of monitoring and optimisation. Service personnel can access the individual installations via KNX/IP routers, and hence perform remote diagnostics and maintenance where necessary. A clever so-

Energy-saving KNX functions/ other KNX functions	<ul style="list-style-type: none"> ■ Energy savings resulting from this project: 30 % ■ Room temperature control with connection to window contacts ■ Demand-based ventilation incorporating CO₂ and humidity sensors ■ Automatic ventilation control ■ Energy use controlled according to occupancy schedules and school timetables ■ Easy operation by teachers ■ Centralised monitoring
Technical highlights	<ul style="list-style-type: none"> ■ Solutions tailored to the requirements of the building services at the various sites ■ Networking of all sites with KNX/IP ■ Building management system with visualisation
Interfaces	<ul style="list-style-type: none"> ■ KNX/IP ■ IP/BACnet
Trades/system components	<ul style="list-style-type: none"> ■ Heating ■ Ventilation ■ Air conditioning ■ Building management
Components	<ul style="list-style-type: none"> ■ Number of bus devices: 2,500 ■ Makes/types: CO₂, temperature and humidity sensors Bus push buttons KNX servo drives KNX Pilot – all from Schneider Electric
Companies	<ul style="list-style-type: none"> ■ Building owner: Paris City Council ■ Installation and system integration: EDF Optimal Solutions

lution was found for financing the project: to reduce the one-off costs, Paris City Council is renting the installations. In return for the rent it pays, it makes guaranteed savings in energy costs each year. A total of more than 660 Parisian schools are due to have been equipped with a KNX installation by 2020.

High-rise building wins “Best Revitalisation Project”

How KNX can help revamp old office buildings

Back in the 70s, when the Lufthansa building in Cologne's Deutz district was built, no one was interested in issues like sustainability and energy efficiency. In 2010 a refurbishment project was undertaken to bring this high-rise office block in line with modern standards. The plan was to cut the building's primary energy consumption and at the same time reduce its operating costs and improve workers' quality of life with the help of eco-friendly environmental heat, triple-glazed facades, high-efficiency radiant heating and cooling ceilings, and LED lighting. The work was completed in 2013, and the building is now the headquarters of the chemical company Lanxess, which is reflected in its new name: the “Lanxess Tower”. It is equipped with a KNX room automation system installed by Elomech Elektroanlagen GmbH, which is good news for the building's operators and for the approximately 1,000 people who work there, because it both reduces the building's energy use, and increases comfort and convenience. The Lanxess Tower received the real estate award for “Best Revitalisation Project”, an achievement in which KNX, the worldwide standard for home and building control, played no small part.

Huge energy-saving potential

The Lanxess Tower itself has 22 storeys, and it is part of an ensemble that includes another, 7-storey, building – the “Rhein-etagen”. To give an idea of the scale of the KNX installation: it covers 48,000 square metres of offices, meeting and conference rooms, and includes around 12,000 luminaires, 1,800 individual room control-



KNX automation helped improve the energy efficiency of the Lanxess Tower and the adjacent Rhein-etagen.

lers, and 3,500 motors for solar shading equipment. Connected to demand-based controls, together these devices represent a vast potential for cutting energy consumption.

Lighting as and when needed

Lights are not simply turned on as a matter of course in the two buildings: they are precisely controlled according to how much natural light is actually available. When the amount of daylight drops below a certain level, the lights in the stairs, corridors, toilets and underground car park are set to turn on automatically in response to presence detectors. In the offices, on the other hand, those inside can choose how much light they need using the room controllers. On special-purpose floors, in conference and canteen areas, and on the executive floor, dimmer functions and predefined lighting scenarios are also available, to enable users to select the right lighting conditions for a given situation. Lights are switched on and off and dimmed by switching actuators or KNX/DALI gateways.

Keeping heat under control

Because of the buildings' glass facades, direct sunlight can be problematic. To com-

bat this, the windows are fitted with solar shading blinds that both protect the offices against overheating, and prevent glare at the workstations. The blinds automatically track the movement of the sun in order to achieve the best possible balance between natural light and shade. The blinds also have safety functions to protect them from gales and rain. The solar shading system is linked to KNX, so occupants can adjust the blinds in their own offices themselves, as needed. The conference rooms can be conveniently darkened – and the lighting operated – from the mobile control panel that also controls the audiovisual equipment.

Efficient heating and cooling

The room controllers can also be used to control the heating and cooling devices in the individual rooms. The KNX individual room control system communicates via KNX/IP/BACnet interface with the building control, measurement and regulation technology. In this way target values can be defined centrally, and temperatures can be adjusted to what is actually required, for maximum energy efficiency. KNX meters in the distribution boards on each floor measure

Benefits of KNX for this project

- Energy-efficient control
- Manual control at workstations
- Visualisation
- Fault and system status messages
- Predefined lighting scenarios

Technical highlights

- Customised individual room control of radiant heating/cooling ceilings
- Control of 7,000 LED luminaires

Trades/building services/system components

- Lighting
- Solar shading
- Room temperature control
- Monitoring
- Visualisation

Interfaces

- Audiovisual control
- Solar shading
- BACnet connection to building control technology
- Fire alarm system
- Safety/security lighting

KNX components

- Number: 6,000
- All Merten:
 - Visualisation
 - Room controllers
 - Switching actuators
 - Solar shading actuators
 - KNX/DALI gateways
 - KNX/IP routers

Companies

- **Building owner:**
 - HIH Hamburgische Immobilien Handlung
- **Architect:**
 - HPP Hentrich-Petschnigg & Partner GmbH + Co. KG, Cologne, Germany
- **Electrical design, installation and system integration:**
 - Elomech Elektroanlagen GmbH, Mülheim, Germany, www.elomech.de

how much electricity the buildings are using. These data, and any system status and fault messages, are then transmitted via the bus system to the building control technology. The KNX applications are visualised by one system per building (make: Merten).

Perfect for hotels

Customised solutions for better comfort, service and energy efficiency in hotels

Commercial buildings – including hotels – account for almost half of all energy use. Old buildings, in which lighting, heating and air conditioning are used virtually without restraint use a particularly large amount of energy. These buildings can be made more efficient by installing building services components with controls taking into account the users’ actual needs. There are countless examples of projects where KNX has been used to do exactly that. In hotels, KNX can enhance comfort, the quality of the service, and guest’s safety and security. The “Große Ledder” hotel complex in Germany’s Bergisches Land region, which attracts both conference delegates and holidaymakers, is an example of a hotel where KNX has proved particularly beneficial. The 11 buildings that make up the hotel, containing a total of around 100 bedrooms and 13 conference rooms, are operated by Bayer Gastronomie GmbH. The operator decided that KNX should be used to link all of the hotel’s building services into a single, innovative network. The installers responsible – Elektro Hering GmbH – executed this task to perfection.



Welcoming and energy-efficient – thanks to hotel-specific KNX solutions

entering their room, guests can use their key card to activate personalised functions such as lighting scenes, preferred room temperatures, TV equipment, underfloor heating, and even a mirror heater.

The room functions can of course also be controlled manually, depending on the user’s needs at a particular moment. Guests define their own scenario, which is automatically called up again the next time they stay at the hotel. Other important energy-saving features include the lowering of the setpoint temperature when the window is open (via window contacts), and a “central off” push button for lights and other devices. KNX is also used for the control of solar shading equipment; this control is either automatic, based on readings from a weather station, or manual, via a push button and media control (iPad).

Room service monitoring
KNX makes hotel complexes easier to manage. The building control technology at Große Ledder, for example, is based on two redundant Gira facility servers with a visualisation that is linked to the hotel’s booking system. Thanks to this, the staff can define room functions for bedrooms and conference rooms according to the information that guests give them at

the time of booking. The system can also keep a record of room service activities. The visualisation provides information about the status of the room functions, whether guests are present, of general functions, it allows temperatures and lights to be controlled remotely and it also displays any error message. Mobile control of the room functions is also possible via the hotel app installed on an iPad. And a Bluetooth hands-free kit allows guests to move around freely while making phone calls and play music from their mobile phone on the room’s sound system. Voice control is currently in a testing phase and will be available in the future.

Networked and integrated

This project exploits a particularly large number of KNX’s benefits: for example, it was possible to integrate the hotel’s old heating and air-conditioning systems into the KNX installation. The fire alarm system, emergency lighting, air-conditioning systems, etc. were linked to the installation via interfaces. Separate KNX systems were coupled with one another via the existing LAN fibre-optic network and KNX/IP routers.

Energy-saving functions/ other functions	<ul style="list-style-type: none"> ■ Heating, air conditioning and lighting matched to users’ requirements ■ Room temperature control including window contacts ■ Room functions activated by key card ■ Control of partitions in seminar rooms ■ Voice alarm in guest’s own language
Technical highlights	<ul style="list-style-type: none"> ■ Energy management linked to booking system ■ Independent monitoring of room service and room functions ■ State-of-the-art operating concepts ■ Two redundant facility servers for data security ■ Integration of old existing systems
Interfaces	<ul style="list-style-type: none"> ■ Messerschmitt closing system ■ Bosch fire alarm system ■ CEAG emergency lighting system ■ Protel hotel booking system ■ Mitsubishi room air-conditioning systems ■ Aceti fault notification system
Trades / Building services / system components	<ul style="list-style-type: none"> ■ Lighting ■ Heating/air conditioning ■ Solar shading ■ Fault notification ■ Audiovisual equipment ■ Visualisation
Selection of used KNX components	<ul style="list-style-type: none"> ■ Visualisation: GIRA Facility Server ■ Control panels: GIRA Smart Sensor ■ DIN rail-mounted devices: ABB Room Master ■ Lighting control: Gira presence detectors and motion sensors ■ Coupling of fibre optic network with KNX: Gira KNX/IP Router
Companies	<ul style="list-style-type: none"> ■ Building owner: Bayer Gastronomie GmbH, www.bayer-gastronomie.de ■ System design and integration: Elektro Hering GmbH, www.elektro-hering.de

KNX makes life better for people of all ages

KNX saves energy and reduces staff workload in retirement home



Independent living in green surroundings – KNX keeps energy costs under control

Ideally, as people grow old, they should be able to stay independent for as long as possible. They should be able to continue living in their own homes, and be part of a community. But they also need to be able to get help easily if they fall ill or need a nurse. The retirement home “Service Residence Patershof” in Beernem, Flanders (Belgium), offers all this and more, providing a good quality of life even for the very elderly. Set in a 7-hectare conservation area, it consists of 44 stylish apartments designed in accordance with accessibility criteria. The building services in the home are also constructed to exacting requirements: based on the KNX standard for building control, they offer a wide range of functions to help residents in their everyday lives, keep them safe and secure, and minimise energy consumption. The KNX installation is the work of Domotic Lounge from Kortrijk-Heule in Belgium.

Heat and light

Large glazed areas allow natural light to flood into the property, which reduces the amount of artificial light needed. On days with little natural light, and in the evenings and night-times,

the lights are switched on automatically by motion sensors. The KNX/DALI-controlled lights in the common area are also very energy-efficient: they keep the light level constant by balancing the light they emit against the amount of natural light available. The shading equipment in the retirement home is also automatic, adjusting itself according to the weather conditions and the position of the sun.

Presence detectors determine how much heating is needed, automatically activating the set-points “comfort temperature” or “standby” when residents enter or leave a room. This saves energy by ensuring that rooms are only heated as much as actually necessary. KNX also controls heat production at the property, where heat comes from geothermal, solar heating and heat recovery systems, or – as a backup – a gas boiler.

Inside the apartments themselves, everything is deliberately not quite so automatic. Here priority is given to allowing residents to operate lights, heating and shading manually, which they do using multifunctional room controllers. But there are still presence detectors in the apartments, to prevent lights from being left on when no one is there. When they leave their apartment, residents can switch off all non-essential devices at

once by pressing the very convenient “central off” push button.

Help is at hand

This project has benefited in all kinds of ways from the sheer flexibility that KNX offers. For example in terms of caring for residents: “resident profiles” can be set up to disable cooker hobs if the resident is no longer capable of cooking for themselves, and to assist – with help from presence detectors – in checking a resident’s state of health from afar. The nurse call system is also linked to KNX. The central monitoring system visualises and logs calls and sends them to the staff’s smartphones. KNX is also ideal for checking the status of doors, and monitoring room temperatures and lighting. It can also relay every conceivable alarm and error message. The retirement home is equipped with an intelligent, KNX-based consumption monitoring system, making it easy to keep abreast of how much energy the building uses. The system logs tap water, rainwater, gas and electricity use for the home as a whole, and water, heat and power consumption in the individual flats. The data for the individual flats is also used in calculating how much tenants need to pay for water, heating and electricity.

Energy-saving KNX functions

- Room temperature control based on presence/absence and window positions
- Connection to renewable heat production systems
- Controlled heat distribution
- Presence-based lighting
- Constant lighting control to exploit available daylight
- “Central off” push button in apartments
- Smart metering to monitor consumption
- Energy saved on lighting and heating

Technical highlights

- Integration of nurse call system into KNX installation
- Help with care activities
- Centralised building management via visualisation
- Integration of central concierge point with resident profiles

Interfaces

- RS232 to central fire alarm system
- M-BUS for energy metering
- BACnet heat pump controller
- Modbus metering of rainwater use

Building services/system components

- Lighting
- Heat pump/gas boiler/ventilation
- Solar shading
- Nurse call
- Technical monitoring
- Visualisation

Components

- **Number of devices:** 564
- **Types/makes:**
DIN rail-mounted devices: Schneider Electric, WAGO KNX/IP
- **Motion sensors:** Schneider Electric
- **Weather station:** Elsner-Elektronik
- **Button:** Berker
- **Thermostats:** Berker, Arcus EDS
- **Mini Touchpanel:** Zennio
- **Badge holder/reader:** Eelectron
- **Visualisation:** Webbased visualisation custom-made
- **Control panels:** Desktop, tablets and touchscreens with web browser

Low energy consumption – no sweat!

KNX helps turn municipal buildings into green buildings

KNX has an excellent track record of improving the energy efficiency of municipal buildings. In doing so, it has saved money for local councils, helped the world's climate, and supported the German government in its "energy turnaround" programme. The town of Schorndorf in south-west Germany – famous as the birthplace of Gottlieb Daimler, who changed the world with his invention of the petrol engine – is wholeheartedly embracing the possibilities that KNX opens up. In 2012 the Schorndorf town council built a new sports hall according to passive house standards, in which the building services were networked and automated by the company Schlotz GmbH. As a result the council enjoys 35 percent lower energy bills than when the sports hall would be equipped with conventional building services components.

Occupancy schedule

Sports halls are used irregularly in terms of both time and numbers of people: one day they might host a tournament involving several hundred players, while on the next, they might only be used by one small group for training. If energy is to be used efficiently in a sports hall, then the lighting, heating, ventilation, hot water and other building services need to be able to adapt to this irregular schedule. In Schorndorf, this is achieved with the help of an occupancy planning system based on the user-friendly Microsoft Outlook calendar. IT expert Ralf Schlotz developed a new programme to link this calendar with the sports hall's building control technology. The software controls the building services according to the information entered in the calendar. KNX combi sensors send room temperature, CO₂ content and humidity data to the controller, which on that ba-



Heat from the sun provides welcome warmth in winter, but in summer, an automatic solar shading system keeps the building cool and protects sports hall users from glare

sis creates a pleasant indoor climate. The lighting is controlled by KNX presence detectors. KNX/DALI constant lighting control keeps the brightness level in the rooms constant at all times, by compensating for fluctuations in the amount of available natural daylight.

Sun and shade

The sports hall's shading system is automated by KNX and saves energy in a number of different ways: during the day, for example, it provides optimal glare protection, while at the same time allowing as much natural daylight as possible into the rooms. This reduces the amount of artificial lighting required. In summer, the shading system keeps the rooms cool and in this way reduces the burden on the ventilation system, while on sunny winter days, it stays open to allow heat to penetrate into the building. Instead of installing a power-guzzling air-conditioning system, Ralf Schlotz programmed a controller automatically opening up large windows on cool summer's nights, to cool the hall down completely free of charge.

All trades/building services in one

In order to optimise energy consumption, it helps greatly to be able to monitor how the con-

sumption figures change over time. Thanks to KNX smart metering, the Schorndorf town council always have the electricity, gas and water consumption figures for the sports hall right at their fingertips. The system visualises, evaluates and archives the data. A specially-developed logic detects any unexpected fluctuations in energy use, enabling any unusual drains on power to be detected and eliminated immediately. The heating, ventilation and hot water systems have been integrated into the installation via the modular WAGO I/O system, KNX/IP and a KNX terminal, in simply exemplary fashion. This creates synergies: for example, the measurement and control equipment can be regulated based on data gathered by KNX sensors.

Intuitive operation

The KNX installation is controlled and visualised via a Gira Home Server. This is where the data from all of the different building services come together – including electrical components, heating, ventilation, water supply, access control, fire alarms, smoke detection, shading and consumption metering. Town council staff, maintenance firms and operators can all access the premises remotely according to their own access rights. The installation is controlled lo-

Energy-saving	<ul style="list-style-type: none"> ■ Energy savings resulting from this project (calculated): 35 % ■ Demand-based control of heating and ventilation ■ Presence detectors with constant lighting control ■ Shading control with solar tracking ■ Night-time cooling ■ Smart metering and energy management
Technical highlights	<ul style="list-style-type: none"> ■ Microsoft Outlook occupancy schedule matches energy use to actual demand and reduces staff workload ■ Energy management ■ All building services are connected to building control technology
Trades/Building services	<ul style="list-style-type: none"> ■ Lighting ■ Shading ■ Heating/ventilation ■ Monitoring whether doors are locked or unlocked ■ Technical monitoring ■ Visualisation ■ Energy monitoring ■ Flushing to protect against Legionnaires' disease
Systems	<ul style="list-style-type: none"> ■ Wago I/O system with ModBus TCP/IP and KNX terminal ■ KNX ■ Gira Home Server
KNX components	<ul style="list-style-type: none"> ■ Number: 84 ■ Types/makes: Visualisation/building control technology: Gira Home Server Presence detectors: HTS and Esylux Lighting control: ABB KNX/DALI gateway HVAC: WAGO I/O system with KNX terminal
Companies involved	<ul style="list-style-type: none"> ■ Building owner and architect: Schorndorf town council, www.schorndorf.de ■ Building services and system integration: Schlotz GmbH Gebäudetechnik, Schorndorf, Germany www.schlotz-technik.de

cally from a touchscreen display – an intuitive graphical user interface from which sports hall users can control the lighting, operate the shading equipment and raise and lower basketball hoops.

Smart features for low-energy house

New house is designed for energy efficiency, convenience, safety and user-friendliness

Family life is twice as nice when you own your own home. And if that home happens to be “Oberbachern”, a new detached house in the Dachau district, near Munich in Germany, even the electricity bills are a treat. Every element of the new house was built with energy efficiency in mind. But low-energy houses do not just save money for the people who live in them: they also support global efforts to protect the world’s climate, they conserve natural resources, and they are in line with the goals of the German government’s “Energy Turnaround” initiative. Private households account for about a quarter of all energy consumed, so they represent a huge potential for cutting the amount of energy consumed. The usual ways in which people try to reduce the energy consumption of their homes are by installing energy-efficient building services equipment, fitting thermal insulation, and buying eco-friendly household appliances. Less well known is the fact that a building’s energy efficiency can be increased yet further by equipping it with intelligent controllers. Oberbachern, which was networked with KNX by the company Schulmayr & Berchtold, is an example of a house where this strategy has achieved impressive results.

Smart network

Even before you step inside, Oberbachern makes a very positive impression: it was built in timber frame construction using sustainable, thermally-insulating building materials. LED lighting is used in the house to present the interior design in the best possible light. The energy-saving lamps alone, which are used throughout the 150 square metre house,



Even before you step inside, it is clear that this house is something special! The interior, fitted with a KNX home control system for high energy efficiency, certainly lives up to the expectations.

make a useful contribution to minimising energy consumption. The house’s heating system, which includes a heat pump and heat recovery, is also highly efficient. On top of that, individual room controllers reduce the amount of thermal energy used by a further 10 to 15 percent. KNX not only controls the house’s technical equipment, but it also links its different functions together in order to use energy even more efficiently. For example, the venetian blinds do not only provide shade: they also control and channel daylight, and so reduce the amount of artificial lighting required. On sunny winter’s days it is possible to deliberately trap the sun’s heat in the building, thus requiring less heat from the heating system.

Remote-control heating

The house’s lighting can be controlled not just by using a multifunctional room controller, but also from a tablet computer or mobile device, and for several rooms at once. There is also a “central-off” button – an indispensable energy-saving function. The lights in the toilets are switched on and off automatically by presence detectors. KNX can also simulate the presence of occupants in

the house as a deterrent to burglars. The shading equipment in Oberbachern is also automatic, and is controlled by readings from a weather station. Occupants can operate individual blinds manually by push-button, or can use their tablet to control a whole facade at a time. The functions of the air heat pump and ventilation system are linked to KNX via gateways, so heat production and distribution are always perfectly attuned to one another. One very convenient feature for occupants is the option of using a smartphone to turn the heating up shortly before arriving back home, so that it is at the right temperature again on their arrival. KNX is also beneficial for safety, because the house’s smoke detectors are incorporated into the bus system. In case of alarm, the system transmits alarm notifications and raises the blinds to provide unhindered escape.

Know how much you are using

Thanks to KNX, residents at Oberbachern always know how much energy they are consuming. Consumption figures for the lights, heating, ventilation, electric hobs, oven, etc. are all individually recorded, displayed on a tablet, and

Energy-saving KNX functions	<ul style="list-style-type: none"> Centralised lighting control Heating and ventilation integrated in bus system KNX individual room control Shading equipment with daylight control Complete transparency with regard to energy consumption Additional energy savings of 10 – 15 %
Technical highlights	<ul style="list-style-type: none"> Operating concept using tablet computer Centralised safety functions thanks to integration of smoke detectors Solar shading equipment incorporates light control and solar tracking
Companies involved:	<ul style="list-style-type: none"> Architect: Bernhard Rückert, Dachau, Germany www.expeditio.de Installation and system integration: Schulmayr & Berchtold GbR, Dachau, Germany www.elektro-berchtold.de
Trades/building services:	<ul style="list-style-type: none"> Lighting Heating Ventilation Solar shading Alarm management Visualisation Interfaces
KNX components:	<ul style="list-style-type: none"> Number of devices: 56 Types/makes: Visualisation: Jung Facility Pilot Server Control panels: Jung Design F50 push-button sensors Room temperature controllers: Jung Solar shading: Theben weather station Safety: Gira smoke detectors/KNX module

logged, making occupants more conscious of how they use energy. They can see if any data deviate from the norm, and quickly respond by optimising their energy use and rectifying errors. The residents are entirely comfortable with their new home automation system; it is an integral part of their daily lives. This is thanks not least to the uniform operating concept, multifunctional room controllers, and visualisation with user-friendly interface.

ETS5: New functionality and improved workflow for KNX experts



One of the main objectives of the ETS5 development was the complete integration/support of KNX RF (S-mode) devices in ETS. The aim was to ensure, that the usage, handling and the workflows already known in ETS work with radio frequency devices in the same way as today with TP/PL devices. Using radio frequency in mixed installations (with TP or PL) or as plain radio frequency installations opens many new application segments. An additional point is the again improved performance of project editing and a continued optimization/improvement of workflows. The before said aspects are reflected in the new ETS5 in following way:

- a) *Project definition and commission of KNX RF (S-mode) is done as in today's TP and PL systems, creation of projects spanning different media and linking with already known methods (keywords are here explicit RF lines in ETS projects → TP/RF Coupler, Group Addresses, Group Objects)*
- b) *Optimized ETS working areas as regards available workspace e. g. visible area*
- c) *Again an increase of performance on recurrent tasks (e. g. KNX product/project import, inserting of devices in a project or sorting/copy functions)*
- d) *Change to a database free storage of projects/KNX product*

- entries through saving content in standard folders and files*
- e) *Optimized functionality on dongle licenses*

Underneath some of the above examples will be explained in more detail and if possible illustrated with a picture for better understanding.

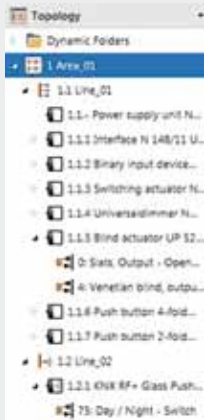
The examples given here for sure do not cover all innovations, but give a good impression of the main new features of ETS. We invite all interested customers to discover the functionality explained here through the free of charge ETS Demo version (available since October 2014).



5 ETS

Integrated KNX RF support

1 System



Advantage compared to ETS4

From ETS5 onwards, the medium KNX radio frequency is fully integrated into the project creation workflow. Links between objects (even across different media), handling and viewing devices in the ETS, as well as loading the application works with radio frequency on the same principles as with current TP or PL devices.

- *Extension of existing installations with radio frequency components*
- *Creation of pure KNX radio frequency installations*

Database free ETS technology

2 Database



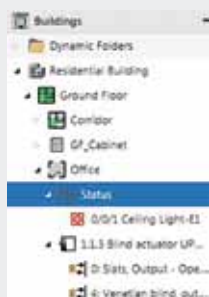
Advantage compared to ETS4

With the introduction of database free storage some of the recurring steps when building a project are no longer necessary. This reduces the time needed for project creation and editing/processing significantly.

- *Creation of databases not needed anymore*
- *Separate import of KNX product entries for project creation not needed anymore*
- *On every newly created project immediate access to the devices already imported to the local PC or to devices from online catalog*
- *Installation of database server not needed anymore*

Linking in one view

3 Project



Advantage compared to ETS4

Two key elements in the creation of an ETS project are Group Addresses and Group Objects, these are available in the ETS4 in two independent windows (Group Addresses and Topology or Building). In the ETS5 these two “core elements“ can be created, managed and displayed in one single view or window – the building view.

- Improved overview on commissioned functionality in the building (keyword “place of action”, i.e. visibility of the actual place in the building affected by the Group Address).
- Shorter distances when dragging and dropping, hence faster linking

Extended functionality of dongle license

4 Licensing



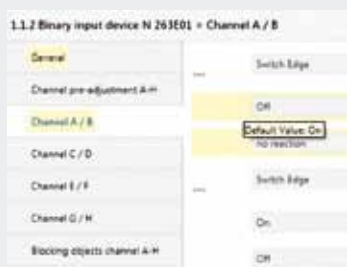
Advantage compared to ETS4

With the introduction of the new ETS5 dongle some significant advantages are introduced when working with the ETS on multiple PCs.

- USB memory on dongle for exchange of KNX data, e. g. exported projects
- Licenses do not need to be installed on each computer, as was the case for the ETS4 dongle
- No separate dongle driver needed
- Smaller size of new dongle compared to that of the ETS4

Product parameter changes at a glance

5 Project



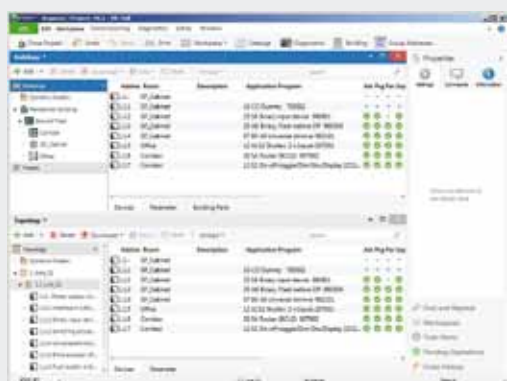
Advantage compared to ETS4

Most KNX devices have a variety of device parameters. These are either set to the a default value or a project-specific setting, defined by the installer. Whether project-specific values other than the default are set and if so, what the actual default value is, was before not immediately obvious.

- From ETS5 onwards, it is possible to display both values simultaneously.
- Faster overview on functions in a building or building part
 - Faster modifications possible

Optimized Workspaces

6 Project



Advantage compared to ETS4

The ETS5 uses an again optimized screen with more visible space during the actual project design.

- More space in detail view, also on low resolution screens
- Increased overview through improved and lean menus plus better organization of functions

Online Catalog extensions

7 Project



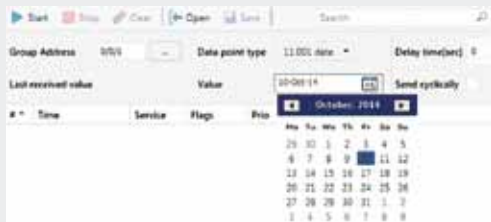
Advantage compared to ETS4

The introduction of the online catalog in the ETS4 was a great success. Next to the KNX product entries KNX manufacturers can now from ETS5 onwards offer advanced Online Catalog information on their products (see picture on the right).

- Picture and descriptive text
 - Application manual as PDF file
 - Additional data, e. g. assembly instructions or technical hints
- We count on further support of the KNX manufacturers to use these new possibilities in ETS5 and add this new data through this KNX infrastructure.

Integrated data point decoder

8 Monitor



Advantage compared to ETS4

The new Datapoint type decoder as part of the monitor allows you to send values on the KNX bus easily decoded directly as DPT.

- User friendly entering of DPT values without having to know the internal formatting of DPTs

Fast download with KNX Long Frames

9 System

Advantage compared to ETS4

From ETS5 onwards in addition to the already known standard telegrams also “Long Frames” are supported. These “Long Frames” allow sending long telegrams to the KNX bus. For devices that support the reception of such “Long Frames” more payload data can be contained in a single telegram

- Shorter download times during device download

ETS5 as 64-bit application

10 System



Advantage compared to ETS4

Through consistent use of a 64-bit software architecture in ETS5, the new ETS5 can now run as a true 64-bit application in a 64-bit Windows environment*. Memory consuming operations (copying of entire lines) can use the full RAM resources of the PC for this purpose. Copy operations are herewith performed in one-step, e. g. without having to take recourse to the hard disc.

* if no 32-bit component in an ETS project would prevent this

Dynamic folders with object filter function

I | Project

Name	Object Function	Description	Group Address Length
Switch_Raster_A... (4219)	On/Off	Conting Light 01...	1,00
Channel 1... (4220)	On/Off Toggle	Conting Light 02...	1,00
Switch left... (4221)	On	External Light 03...	1,00
Switch left... (4222)	On	External Light 04...	1,00
Switch_Raster_A... (4223)	On/Off	Conting Light 05...	1,00
Channel 2... (4224)	On/Off Toggle	Conting Light 06...	1,00
Switch right... (4225)	On/Off	Conting Light 07...	1,00
Channel 3... (4226)	On/Off Toggle	Conting Light 08...	1,00
Channel 4... (4227)	On/Off	Conting Light 09...	1,00
Channel 5... (4228)	On/Off	Conting Light 10...	1,00
Channel 6... (4229)	On/Off	Conting Light 11...	1,00
Channel 7... (4230)	On/Off	Conting Light 12...	1,00
Channel 8... (4231)	On/Off	Conting Light 13...	1,00
Channel 9... (4232)	On/Off	Conting Light 14...	1,00
Channel 10... (4233)	On/Off	Conting Light 15...	1,00
Channel 11... (4234)	On/Off	Conting Light 16...	1,00
Channel 12... (4235)	On/Off	Conting Light 17...	1,00
Channel 13... (4236)	On/Off	Conting Light 18...	1,00
Channel 14... (4237)	On/Off	Conting Light 19...	1,00
Channel 15... (4238)	On/Off	Conting Light 20...	1,00

Advantage compared to ETS4

Through consistent continued development of dynamic folders, it is now possible to do a device independent filtering on properties of Group Objects. This allows to run a search on all objects in an installation (usually several thousand) corresponding to an appropriate function. These functions are mostly determined by object name or by a specific object flag.

Next to the before list, underneath a summary of additional novelties and improvements in ETS5, sorted according to topic

Bus access

- New Falcon 3.0 – as part of ETS5 and as a programming library for anybody – for easy access to the KNX bus

User interface

- Merging of all bus relevant functions in one tab for better overview
- New report panel, fully integrated in the ETS5 user interface
- New full text search including highlighting of search results in the ETS5 working panels and catalog
- Shortcuts again extended compared to ETS4

Project editing/Diagnosis

- Linking with Group Addresses automatically and in advance filters on compatible objects (improved overview, speeded up search/linking)
- Integration of cabinets in rooms possible (building panel)
- Assignment of DPT to Group Addresses also possible

Project documentation

- Analysis/ calculation of bus current of devices in a line
- New report engine for faster reports und preview results
- “To Do” exchangeable between PCs as now part of ex/imported project

Operating System support ETS5

- Windows 7 SP1 x32, x64
- Windows 8 x32, x64
- Windows Server 2008 R2 SP1 x64
- Windows Server 2012 x64

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IT GmbH

ETS App Function Test



Function test and acceptance of an ETS project is an important step. The app Function Test provides a visual test environment for the plant's functions and makes

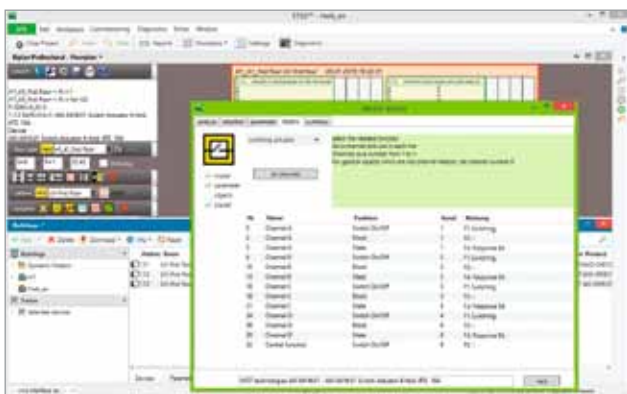
a report of all performed tests. All elements in the plant can be tested right out of the ETS app or via mobile devices like tablets or smart phones. Thereby, all de-

finied building functions defined in the ETS project will be taken into consideration. A report functionality makes the app complete. Mark the success-

fully tested elements directly inside the app. A test/acceptance report can be generated directly on site with your customer, while testing the project.

Contact: www.it-gmbh.de/en/products/knx-software/ets-apps.html

Nautibus Elplan



Elplan is an ETS App that can create ETS projects using a graphical user interface. This well-known App has been redeveloped and its operation has been greatly facilitated by two new wizards. The Floor Plan Wizard, that guides the user through the necessary steps,

can import existing or scanned image files, or from other applications, such as PDF or DFX files in order to create the floor plan. In further steps, it can be edited by defining the room layout; consequently the building structure is automatically generated in ETS. In

the Device Wizard, KNX devices are selected, parameterised and thus an automatic connection of the objects is established. Each device type has to be set only once, so further devices from the same type are automatically copied with all the Elplan set-

tings. Overall, the creation of ETS projects has never been so easy and time efficient as today with Elplan v3. Elplan is available in Professional, Light and Demo versions for ETS4 and ETS5.

Contact: www.nautibus.de

Siemens AG

SIEMENS GAMMA Converter App



The GAMMA converter app is used to automatically convert applications from Siemens. This extends the basic functionality of the GAMMA converter tools with the ability to automatically make

the exchange of applications within the ETS. The eventual conversion of the data is performed using the KNX converter library from Siemens, which is available as a separate free download. An

exchange of applications can be carried out both between individual devices as well as multiple devices on a device.

Contact: www.siemens.com/gamma-converter

Siemens AG

SIEMENS Address by ID

Product	Description	Address	Serial number	Download	Read
8136 Busch-ComfortPanel	Touch Panel Open area	1.1.6		Download	Read
multi function push button 4fold FM		1.1.7		Download	Read
Presence detector UP 258/21	Sales Presence Detector	1.1.8	00 01 00 26 91 D1	Download	Read
Presence detector UP 258/21	HL-Presence Detector	1.1.10	00 01 00 26 91 D4	Download	Read
Presence detector UP 258/21	Meeting room Presence Detector	1.1.11	00 01 00 26 6E FB	Download	Read
Presence detector UP 258/21	Stock room Presence Detector	1.1.12	00 01 00 26 6E FF	Download	Read
Presence detector UP 258/21	Restaurant Presence Detector	1.1.13	00 01 00 26 71 CB	Download	Read
Presence detector UP 258/21	Server room Presence Detector	1.1.14	00 01 00 26 6E FE	Download	Read
Presence detector UP 258/21	Lutz & Ufuk Presence Detector	1.1.15	00 01 00 26 6E FA	Download	Read
Presence detector UP 258/21	André & Costo Presence Detector	1.1.16	00 01 00 26 91 D3	Download	Read
Presence detector UP 258/21	Chris & Thibaut Presence Detector	1.1.17	00 01 00 26 93 74	Download	Read
Presence detector UP 258/21	Steven & Vassilis Presence Detector	1.1.18	00 01 00 26 91 D6	Download	Read
push sensor 2 plus 2fold V2	Office Mr Demarest	1.1.21		Download	Read
push sensor 2 plus 2fold V2	Restaurant	1.1.22		Download	Read
push sensor 2 plus 2fold V2	Meeting room	1.1.23		Download	Read

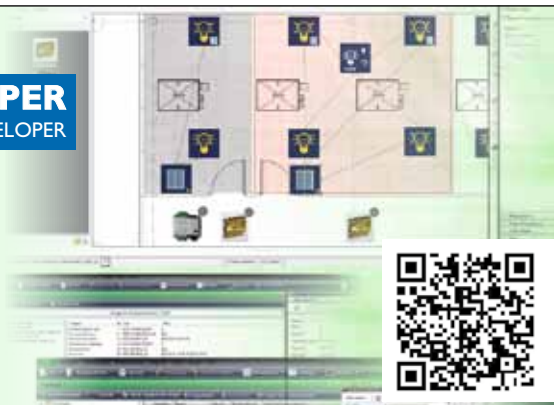

Users can program the Individual address of KNX devices using the KNX serial number. Siemens offers this possibility at KNX products that have a detachable sticker with the KNX serial number. This allows the installer to install the appropriate point in the electrical plan for the ETS expert can program the Individual address without pressing the programming button. The fact that the serial number is printed as a barcode on the label, it is also possible to read a bar code scanner.

Contact: www.siemens.com/gamma

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Energy Harvesting with KNX RF

*KNX RF – Energy Harvesting
for the Green Home and Building Control Standard*

“Energy Efficiency with KNX” is not a slogan, it is everyday reality for the worldwide STANDARD for home and building control.

One aspect of energy efficiency is reducing the energy demand of the devices to enable self powering due to energy harvesting. This reduces costs, maintenance and makes a significant contribution to the world we all live in by avoiding waste over the life time of a product, since most RF devices are battery powered. Up to day there have been attempts by different systems to solve the contradictory requests of seamless integration of bidirectional devices with tool based configuration on one side and energy autonomy through energy harvesting on the other side.

A functional analysis was made for the switch module



Picture 1. Switch module

Driven by a vision

Driven by a vision, the company ZF Friedrichshafen AG (Cherry switches) investigated carefully the market for usable technologies, to choose the necessary components and partners to solve the challenge: Energy autonomy by energy harvesting for a wireless switch module using standard KNX RF configured by ETS. Therefore no gateway is needed to integrate an energy harvesting based switch in KNX. The general idea was described in the Article KNX RF: “Energy Harvesting in S-Mode” in KNX Journal 2/2014.

One main result of this analysis had serious conceptual impact. Energy harvesting proved to be sufficient for the run time communication. Only during configuration one adapter is needed to satisfy the need for energy. (Please see picture 2 and tables 1 and)

The key component – electrodynamic generator- that converts mechanical pressure during a path (movement of a key) into a change of magnetic flux in a coil thus creating an electric pulse of energy that is stored for later use, was defined and optimised by ZF

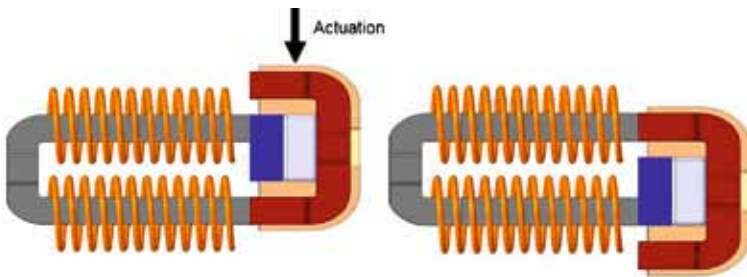
Friedrichshafen AG. This generator is packed with the complete electronic hardware in a module. This mechanical solution enables any switch manufacturer to use this basic component in his respective products (picture 3).



Picture 2. Adapter and Tables 1 and 2

Possible functions of the module:	
1 button functions	
dimmer, shutter, blinds, sending value, switch, switch short/long, toggle, scene	
2 button functions	
dimmer, shutter, blinds, sending value, switch, scene	

Technical data of the module:	
Frequency band	868.3 MHz
Temperature range	-20 to +45 °C
RF generator lifetime	up to 150000 operations
RF distance (in buildings)	up to 30 m
Radiated transmitting power	up to 3 dBm
RF protocol length	approx. 20 ms communication, bidirectional during configuration with corresponding adapter



Picture 3. Principle

The second step was defining the hardware

For the controller and RF transmitter part, the performed hardware market survey identified only one candidate with the best energy to RF transmission power ratio. The chosen one is a SoC Ultra-low Power RF-Microcontroller. It is the lowest-power RF-microcontroller with constant RF output power over the specified supply voltage range from 1.8 V to 3.6 V.

In a brilliant and simple way ZF Friedrichshafen AG solved the very efficient energy manage-

ment part that stores the energy generated by the electrodynamic generator and provides it as a power supply to the MCU and RF transceiver.

So almost all ingredients for the most promising milestone product in the KNX world have been gathered and almost all preparation work was done. The only missing part to be added was the software that enables the hardware to communicate via KNX RF for commissioning and for run time.

Again a market survey decided what to use. Features like sup-

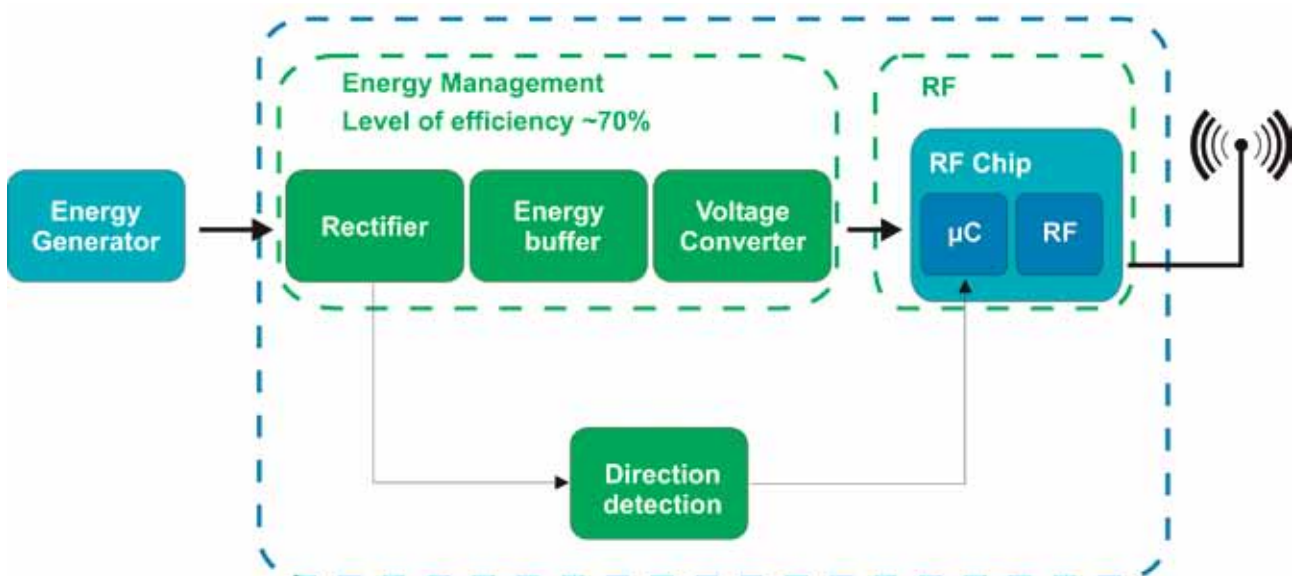
port of chosen hardware platform, support of ultra low power consumption, modularity of software and others have been compared. ZF Friedrichshafen AG decided for Tapko Technologies' KAlstack as the driving software for the product.

The final result of this effort is a module that integrates all desired options.

- KNX RF for wireless communication.
- No battery for run time. Self powered by converting the force used to activate the switch into electrical energy.

- Commissioning with ETS5 and the help of a pairing adapter.
- Covering almost full functionality of a standard switch sensor. This milestone product starting mass production this year, proves that energy harvesting and KNX RF are parts that allow a smooth and tight integration. This should be stimulation for the future to other KNX members to present their KNX RF solutions with energy harvesting for a better world of tomorrow.

Contact: www.tapko.de



Picture 4. Energy management

Link between the Smart Meter and the Home Area Network in France

Use of KNX RF Multi secured

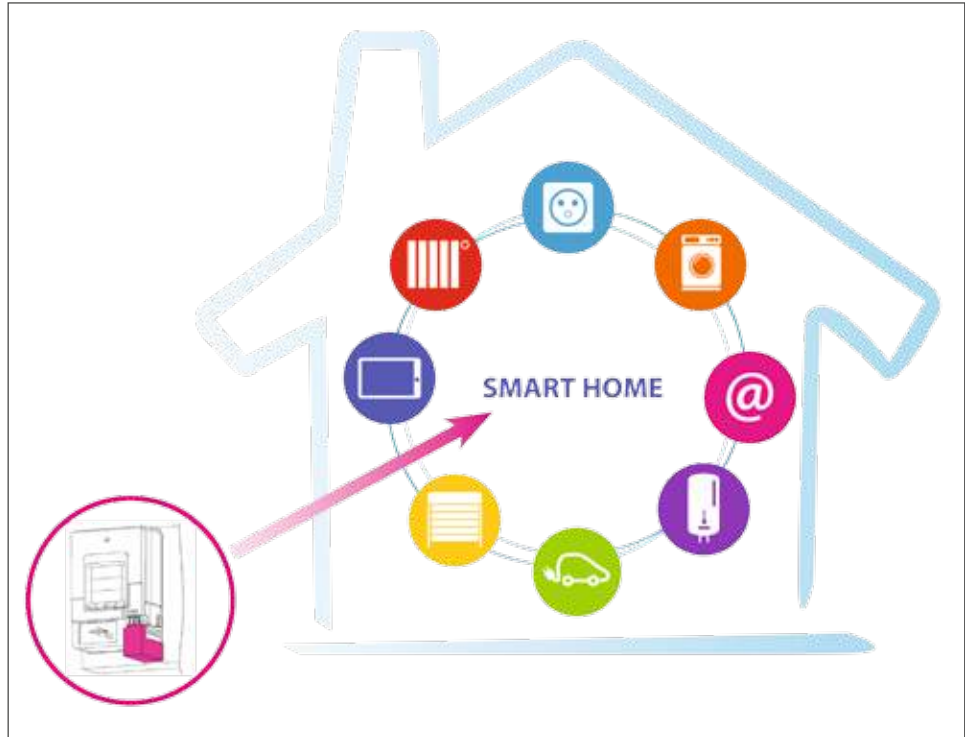
At the June Smart Grid fair in Paris, IGNES (Industries du Génie Numérique Energétique et Sécuritaire) the French electrical and digital equipment manufacturers union presented the new radio transmitter solution to be used together with the new French ERDF SmartMeter called "Linky". Linky smart meters will progressively replace all electrical meters from 2015 to 2020 in France.

Today only 10% of the 27 million households are using the existing electronic meters wired connection (called Télé-Information Client), communicating tariff and consumption information in the house. Instead, the new ERL (Emetteur Radio Linky) radio Linky transmitter has the goal to cover 100 % of households equipped with a Linky smart meter. Customers will be able to bring their energy cost under control and adapt their comfort to the new dynamic tariffs offers proposed by the Energy suppliers. ERL will be an enabler for the realization of Smart grids by balancing better energy production and demand.

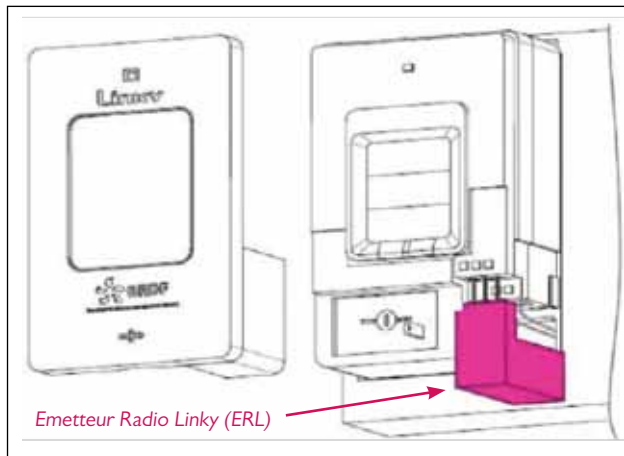
To ensure interoperability with equipment in the home and as the Linky meter only has one single slot, a standardized ERL is needed.

Following the European Commission's March 2012 recommendation to roll-out smart metering systems and prevent or mitigate risks on privacy, personal data and security, IGNES recommends a secured radio link based on two international open standards. KNX RF Multi secured is the protocol retained for 868–870 MHz operation. Configuration is performed in PB-Mode and will also be available as S-Mode in the future. Parallel transmission on 2.4 GHz with another protocol will also be possible.

An EDF (French main energy



Picture: courtesy of IGNES



Picture: courtesy of ERDF



Intelligent Meter "Linky"

supplier) pilot project in the city of Lyon will experiment ERL transmitters in combination with new tariff offers and advanced home automation energy managers. The Smart Electric Lyon

project will be the first real field test for such solutions. 2500 customer households are expected to be equipped with an ERL solution. After the field test, in 2016 the solution is expected

to be widely deployed in France. The ERL project represents a huge market potential for KNX RF Multi products.

Contact: www.hager.com

Easy Solution for Smart Metering

The challenge

A designer of a residential building needs to integrate the building's thermal plant and electrical systems into one single, intelligent system. He wants a management system that can be used to control the building, while also providing tenants with information on their own energy consumption and giving building managers the information they need to bill each apartment appropriately for the energy and services they use. The intelligent system must be able to communicate with: KNX devices within the system, inverters and energy meters for the PV plant on the roof, Wireless M-Bus radio devices (such as heat cost allocators) installed in the apartments for measuring heat and sanitary hot water use, gas and water M-Bus meters connected to the thermal power station, and electricity meters for the building services.

The solution

In the past, system integrators tackled this kind of challenge using PLCs, bus gateways, and a distributed intelligence system that meant no two installation situations were ever the same. Here, in contrast, a range of products is used that can communicate with all installed devices and interact with the system. This is ensured via a user interface that communicates in a single language and which is understood by all devices (KNX, TCP/IP). In a 'smart' building, the control and monitoring system optimises energy efficiency intelligently on the basis of information and consumption data from the heating and electrical systems; having access to this information means being able to assess the effects of savings made as a result of the intervention by the control system. Next to their



need for billing purposes, the availability of energy consumption data also creates additional transparency for end users. Via a smartphone, tablet, PC or touch screen, all users can monitor, either remotely or locally, their consumption of heat and cooling energy, the contribution made by the photovoltaic plant and the activity of the KNX devices in their own apartment.

What you need

The data acquisition devices installed in the building enable a dialogue between the various communication buses. For heat metering, for example, an EQUOBOX (SIN.EQRTUIT) was installed in the thermal power station. This device allows users to communicate with energy meters and heat cost allocators via radio using the Wireless M-Bus protocol; the same device also has an M-Bus communication port (cable) to enable data from the main heating energy

meter, and water and gas data, to be read out. There is also an EQUOBOX (SIN.EQRTU3) connected to a thermal power station, to permit the reading out of data from electricity meters that communicate via Modbus. Both devices are configurable via the integrated display or web interface (with Ethernet port) and provide access to the data via a browser, either locally or remotely. The photovoltaic system is monitored by eSolar (SIN.ESOLARDUO), which also has a web interface; eSolar has a native KNX port via which analogue and digital signals from environmental sensors and tripped relays can be read out. eSolar, thanks to KNX connected to the system, is able to transmit information about PV energy production, making it available to all other KNX devices. The home automation monitoring system, which is installed inside individual units, has access to – via KNX or TCP / IP – all of the

information from the other data acquisition devices. These data are also uploaded to the cloud (SNPDS), so via the system's web interface, users can not only view their consumption data, but can also enjoy a range of cloud services, including energy billing.

The advantages

- Communication with multiple fieldbuses; data sharing
- Easy installation of systems via browser
- Solution can be replicated in other systems
- Easy to install in existing buildings
- Maintenance personnel and individual users can view data locally or remotely as required
- Administrators can bill for services via the cloud
- Error reports from: central heating, metering systems (tampering), photovoltaic system

Contact: www.sinapsitech.it

KNX Security Checklist

Checklist for increased security in KNX installations

1 Is Twisted Pair used as communication medium?

- Have you ensured that application modules cannot be easily removed?
- Have you checked that the cable anywhere in- or outside the home or the building is not easily accessible?
- Does the installed power supply unit allow reporting short circuits of the secondary line onto the primary line? If yes, this allows detecting sabotage attempts.

2 Is Powerline used as communication medium?

- Have band stop filters been installed?
- If Powerline is also used outside the building, have you taken the same measures for the media coupler as given in item 5?

3 Is Radio Frequency used as communication medium?

- Have you taken the same measures for the Media Coupler as given in item 5?

4 Is IP used as communication medium?

- Have the network settings been documented and handed over to the home owner or the LAN administrator?
- Have switches and routers been set in such a way that only known MAC addresses are able to access the communication medium?
- Is a separate LAN or WLAN network used for KNX communication?
- Are IP passwords accessible to third parties?
- Was the default IP multicast address used? If yes, check the possibility to change it.
- Have ports of routers for KNX been closed towards the internet?
If internet access to a KNX installation is needed, check the possibility to implement:
- 1. Establishing a VPN connection to the Internet Router
- 2. Use of manufacturer specific KNX Object Servers

5 Have you used Couplers in the installation?

- Have Individual Addresses been assigned correctly?
- Do you prevent via the setting of appropriate parameters in the Couplers that incorrect source addresses are forwarded outside the line?
- Do you block Point-to-Point and Broadcast communication across Couplers?
- Have the filter tables been loaded correctly and have settings been made in such a way that filter tables are taken into account by the Couplers?

6 Have devices been locked against re-configuration?

- If not, enter a BCU key¹ in the ETS Project.

7 Do you use KNX Secure² devices?

- For group communication that needs to be secured, use the foreseen authentication and encryption mechanisms of the device.

8 Do you suspect unauthorized access to the bus?

- Record telegram traffic and analyse it.
- Read the PID_Device_Control³ from devices and check whether devices are sending using the same Individual Address.
- Read the PID_Download_Counter³ from devices and check whether the device was downloaded again after your configuration.

1) Not all devices can be protected against re-configuration – contact the relevant manufacturer

2) Will become available in the next months and are configurable from ETS 5.5 onwards

3) Is not supported in all devices

The KNX Security Checklist is available for download in six languages on the downloads page from the KNX website:
<http://www.knx.org/knx-en/downloads>

New Members



SWITZERLAND
BELIMO Automation AG



Since 1975 Belimo develops, manufactures and markets electric actuators for motorizing actuators in heating, ventilation and air conditioning systems. The technology company based in Hinwil (Switzerland) employs over 1,300 people worldwide. Belimo's products contribute to increasing efficiency in HVAC applications. High functionality and precision allow optimum operation of HVAC systems and reduce their energy consumption. Bus-

compatible actuators are equipped with intelligent motion control with open interfaces. This provides an easy, cost-effective integration of air and fire dampers, VAV boxes, control valves and intelligent HVAC actuators. The actuators can be individually connected to networks or bundled over the Belimo MP-Bus® to host systems.

Contact: www.belimo.eu

CANADA
CANST CORP.



CANST is a designer, developer and manufacturer of electronic systems. Its focus is on intelligent solutions for control and management of residential and commercial buildings. CANST provides the best services to control and automate buildings with different standards and high quality products from various manufacturers. CANST provides home automation services based on the KNX and other standards for applications like lighting

control, HVAC control, motorized curtain control. CANST also produces modules for parking management systems. CANST has decided to join KNX to design and produce different hardware and software modules based on the KNX standard for home and building automation.

Contact: www.canst.ca

BELGIUM
CJC Systems



Celebrating its 20th birthday in 2014, CJC Systems has already built up a reputation for the design and manufacturing of its design switch panels among architects, installers and distributors worldwide. CJC recently launched five different new product lines of design switches directly based on KNX. Made out of aluminum material, every product line of CJC Systems is available in more than 12 different types of finishings. Every KNX product line can also have an optional temperature and humidity sensor and is avail-

able with/without LEDs (orientation LED -feedback LED). The KNX product lines have all been given female names: ANNA (small levers), ZITA (round push-buttons), LARA (flat square push-buttons), MONA (square push-buttons) and LOLA (small flat square push-buttons). To complete its product range, CJC also offers cover plates for sockets, bed lamps and orientation lights in the same types of finishings.

Contact: www.cjcsystems.com

CHINA
Guangzhou APR Information
Technology Co., Ltd



Guangzhou APR Information Technology CO., Ltd is located in Guangzhou TianHe Software Park, China. APR is a hi-tech smart home corporation that focuses on R&D, production, marketing and services. APR established cooperative relations with China's top universities, such as, Tsinghua University, Xi'an Jiaotong University, etc. APR's sales cover the country's major cities.

Contact: www.aprcn.com

CHINA
Luxurite UK Ltd

INSPRID

INSPRID is an innovative team that focuses on smart building management products and systems. It develops KNX-based products that ensure optimal and energy-efficient control of energy resources in buildings. The product family includes KNX-based push buttons / touch panel switches, KNX sensors, KNX-based actuators, KNX-related gateways. The developed software can be

used on PC, mobile and tablet to communicate with the KNX system. Equipped with the world latest technology and first class design, INSPRID KNX products will make building environments more convenient, safe, pleasant and highly efficient.

Contact: www.insprid.com

CHINA
Menred automation system
(Shanghai) Co., Ltd



Menred automation system (Shanghai) Co., Ltd is the number one in the field of floor heating in China and is famous for thermostats, manifolds, valves and actuators. Menred has offices in every big city in China from which it delivers high quality products to its customers. Now it plans to develop residential automation systems based on KNX to integrate lighting, curtains, shutters, HVAC and security systems.

Contact: www.menred.com

BELGIUM
Option NV



With more than 25 years of experience and many industry firsts in the wireless industry, Option is ideally positioned to bring the most efficient, reliable and secure wireless solutions to M2M markets. Option partners with system integrators, value added resellers, application platform providers, value add distributors and network operators to bring tailor-made solutions to end-customers. Option is headquartered in Belgium and maintains offices in Europe, the US, Greater

China, Japan and Australia. Option's flagship CloudGate Intelligent M2M Gateway allows system integrators to produce customer solutions for a variety of different M2M market segments with a single gateway product. CloudGate incorporates two hardware expansion slots that allow the product to be enhanced with additional radio and/or wired interfaces.

Contact: www.option.com

DENMARK
Orion Systems A/S



Orion Systems is a Norwegian company that is a leader in Scandinavia. It has been active in the development and production of venetian blinds for integration in double and triple glazing and in the related electronic control systems for several years. It offers an intelligent and effective sun protection solution for small as well as large buildings. The integrated blind shields the building from the weather, ensuring broad daylight on overcast days and providing a pleasant diffused light without solar heat coming in on sunny days.

A cost-effective solution, both in installation as well as in maintenance and also because of its improved energy efficiency. The electronic control system can be operated as stand-alone, controlled by wireless push buttons and sensors or integrated in the building management system. The manufacturing of the blinds and the electronic control systems takes place in its factory in Nørresundby, Denmark.

Contact: www.orionsystems.dk

ITALY
Progea Srl



Since 1990, Progea has been committed to creating powerful and innovative automation software. Based on their extensive experience, and employing the most innovative technological solutions, the Progea team are experts in Scada/HMI Solutions applicable to all sectors of civil and industrial automation. The company is based in Italy, Switzerland, Germany, USA, and has a worldwide distribution sales network.

Contact: www.progea.com

AUSTRIA

Schrack Technik GmbH



SCHRACK TECHNIK, headquartered in Vienna/Austria, is a leader in the energy and data technology branch. With its ten subsidiaries in Central Eastern Europe (CEE) and Belgium, Schrack Technik is able to offer its customers extensive support for a wide range of energy and data distribution projects. Schrack Technik products are in line with the latest technological developments for energy and data distribution boards used in industrial and commercial installations. These devices have proven their reliability in private

apartments, hospitals, banks, machine controls and production lines. Schrack Technik is a leading, sales-oriented brand company from Austria specialized in the areas of energy, industry, building, safety, data cable and light. The main activities in the area building automation are wall switches, motion and presence detectors, smoke detectors, light signal systems and intercoms.

Contact: www.schrack.at

POLAND

Sensinum sp. z o.o.



Sensinum specialises in the delivery of dedicated IT systems for the Healthcare Sector and Ambient Intelligence. The team has many years of experience and constantly undertakes self-improvement efforts, which helps them to complete projects for small commercial enterprises expecting systems facilitating healthcare management, patient health monitoring, Ambient Assisted Living, smart spaces and objects. Sensinum also specialises in the preparation and execution of

projects co-financed with European Union resources, particularly research and development projects. Thanks to the application of the latest methodologies and technologies, the solutions delivered by the company are characterised by a high level of data processing security, ease and ergonomics of use, and a unique user-friendly look.

Contact: www.sensinum.pl

CHINA

Shenzhen Sunricher Technology Limited



HongKong Sunricher Technology limited was established in 2007. It is a high-tech enterprise with TUV ISO 9001:2008 certification. The production area covers more than 2000m². Currently it has more than one hundred employees. 20 engineers make up the R&D team, having abundant experience in lighting control systems, home and building automation systems. Much attention is paid to intellectual property rights, the company

owns more than 45 patents, including three invention patents, utility model patents and software copyrights. A well-trained QC team strictly controls quality of all controllers and dimmers. Sunricher has built a long-term co-operation relationship with some excellent and famous companies in European countries and the US area.

Contact: www.sunricher.com

GERMANY

SKS Kinkel Elektronik GmbH



SKS was founded in 1977. Since then the company specializes in development, production and marketing of house communication. This includes audio- and video intercoms in combination with door stations which are manufactured according to the customers' needs. The range of letterbox systems, pillars and access controls completes the product portfolio. In addition, SKS offers its customers comfortable solutions through the integration of house communication functions and

automation in just one multipanel, which is based on KNX technology. Target groups for SKS products include installers, engineering offices, housing associations and architectural offices. SKS offers customers solutions for all kind of projects, for example products ranging from simple to upmarket housing, retirement homes, student dormitories and functional buildings.

Contact: www.sks-kinkel.de

UK

Sontay Ltd



Sontay is a manufacturer and supplier of peripheral products such as sensors and switches into the HVAC and Climate Control industry. It is known as a market leader in the UK and has an ever growing presence worldwide. Its products are primarily sold to system integrators who design and install systems for commercial and industrial build-

ings, as well as through a strong distributor network. Sontay has strong ethics providing excellent service, along with reliable and well-designed products with a focus on improving energy efficiency, while lowering the total installation cost for the installer.

Contact: www.sontay.com

TURKEY

TEKNOS Technologic Systems Industry and Trade Limited Company



Teknos is developing advanced technological products and services to satisfy Turkish customers' needs and make their lives easier. Teknos has experienced personnel that provides services in their fields with great expertise. Teknos is known for cooperating with other companies and the delivery of reliable products, services and projects. In the beginning of 2012 TEKNOS started to develop a Smarthome system that works

separately on Powerline (Teknos Protocol), RS485 (Teknos Protocol) and KNX. This R&D project is supported by TUBITAK (Government association) and the Hacettepe University. The system was announced at the ISAF Smarthome Fair in ISTANBUL on the 18th of September, 2014.

Contact: www.teknos.com.tr

SLOVENIA

UP Skupina d.o.o.



UP Group develops KNX Smart Applications and is now also engaged in producing KNX devices with the best cost-performance ratio. More than seven years of experience in the KNX field has given the UP Group a lot of expertise. It now offers switch actuators, shutter actuators, several converters, binary

inputs and other KNX devices with a two year warranty. UP Group has also developed a KNX Smart House App, with which one can control lights, shutters, blinds, heating and cooling, view cameras, send messages, ...

Contact: www.up-group.com

TAIWAN

VIA Technologies, Inc.



VIA Technologies provides the building blocks not just for building innovative x86 embedded solutions, but also for creating ground-breaking ARM connected devices allowing customers to benefit from exciting new opportunities created by the emergence of ubiquitous connectivity and the Internet of Things. For over 20 years, through their unrivaled range of platforms, systems, software, and customization services, VIA has been delivering a comprehensive array of so-

lutions that accelerate product development cycles and empower developers to create amazing new connected experiences for an almost unlimited variety of applications. As a KNX member, VIA offers turnkey solutions and services for system integrators to leverage for the quickest path to production of home and building automation solutions based on the KNX protocol.

Contact: www.via.com.tw

BECOME A KNX MEMBER

JOIN KNX ASSOCIATION AS A KNX MEMBER



- ✓ Be listed as a KNX Member on the KNX website
- ✓ Get a copy of the KNX Specifications sent to you
- ✓ Get access to the ftp server, KNX know-how and tools
- ✓ Your company and new products shown in the KNX Journal and social media
- ✓ Get the possibility to ask for a KNX Manufacturer ID or ETS App Developer license
- ✓ And much more

visit: www.knx.org → Community → Manufacturers



New KNX Products

ABB Stotz-Kontakt GmbH
ABB i-bus KNX Weather Unit und Weather Sensor



With the new Weather Unit WZ/S 1.3.1.2 and the new Weather Sensor WES/A 3.1 ABB optimizes its offer in the field of evaluating and monitoring meteorological data. The Weather Unit detects and processes data from a Weather Sensor (brightness level, rain, temperature, information on day/night, wind speed, date and time) and provides an additional input for the connection of a PT-1000 sensor. The Weather Unit has to be supplied with an operating voltage of 85 to 265 V AC. It provides the supply voltage for the connected sensor. Advanced diagnosis and improved commissioning is supported by the ABB i-bus Tool.

Contact: www.abb.com

Aumüller Aumatic GmbH
Ventilation control unit LZI KNX



With the new ventilation control unit LZI modern requirements for windows and façade automation systems can easily be fulfilled. The LZI is the ideal connection between the 24 VDC Aumüller window drives and the KNX world. Nothing will stop you from a convenient operation of facade elements and roof windows via KNX. Due to the adjustability of the ventilation stroke from 0–100 % and an accurate feedback to the KNX bus, the user has at any time full control over the window position. The infinitely adjustable speed of the window drive via the KNX bus complements the package of the LZI KNX.

Contact: www.aumueller-gmbh.de

b.a.b-technologie GmbH
CUBEVISIONMODULE



The entry into the world of building automation has never been easier: The CUBEVISIONMODULE offers all the essential functions of a high-grade visualisation, while being very simple to set up and operate. The implemented CUBEVISION visualisations facilitate a consistent user interface. This means that smartphones and tablets etc. become handy and mobile control centres. The intuitive CUBEVISION Editor is integrated. The number of control elements such as multimedia controllers, RGBW colour selectors, IP cameras etc., is unlimited. The embedded multi-room functionality permits the control of Sonos® players and AUDIOMODULE. The device can also be used as a KNX/IP router.

Contact: www.bab-tec.de

b.a.b-technologie GmbH
CUBEVISION WebAPP



This WebAPP is suitable for EIBPORT and CUBEVISIONMODULE. The WebAPP technology greatly improves performance on mobile devices. The APP is available in the Google® PlayStore™ and Apple® AppStore. It simplifies access (by a DiscoveryTool the server is automatically located) and ensures the suitability of the devices (automatic scaling). The CUBEVISION Mobile version generates itself completely automatically from the created CUBEVISION visualisation. Although depending on the display size and resolution the visualisation is automatically scaled and differed between tablet or phone depiction. So the only thing you need to do is installing the App.

Contact: www.bab-tec.de

basalte bvba
B.Link: the new integration module for Asano



Asano, the revolutionary multiroom audio system from basalte, has been extended with B.Link. This DIN rail module makes it possible to control any IR or Serial RS232 device with KNX, such as CD players or digital set top boxes. B.link can be combined with up to 16 B.link flex modules (PoE) that communicate over IP and can be placed anywhere in the house. To each B.link flex, you can connect up to three IR transmitters using a splitter or a single Serial RS232 cable. As a bonus, up to three surround receivers can be integrated directly over IP. With B.link, source selection and volume control with full feedback can be controlled with KNX commands. B.link supports receivers from Pioneer, Marantz, Integra, Denon and Onkyo.

Contact: www.basalte.be

B.E.G. Brück Electronic GmbH
KNX Room Controller RCT



With the new KNX-RCT, which is integratable in room ceilings, all functions of a room can be controlled via the KNX-BUS. The box has reverse-polarity protected GST-18 connections for KNX, DALI and 230 V, and connections for two switches. Using the KNX connection, the KNX-RCT can be connected to a wider KNX system and a KNX occupancy detector can be plugged in. Via the integrated KNX/DALI Gateway up to 45 DALI electronic ballasts can be directly be linked to the KNX-RCT. Additionally, the service mode offers the possibility to control the lights or the shutters manually by means of two push button inputs, without ETS. The economic manner of mounting can save up to 30 % of total costs.

Contact: www.beg-luxomat.com

B.E.G. Brück Electronic GmbH
PD11-KNX FLAT-FC



The innovative occupancy detector PD11-KNX FLAT-FC from B.E.G. for ceiling installation is almost invisible: With only 0.85 mm building height it is the latest addition to the B.E.G. KNX range with its modern, unobtrusive design. The occupancy detector is the newest addition in the series of KNX capable occupancy detectors and extends it by providing a discrete solution for monitoring areas up to 9 m diameter. This presence detector is the first choice for home users; with its purposeful design, the device can be installed to save space. By using B.E.G. application software 5.0, the new detector can easily be integrated into existing systems; compatibility and usability are guaranteed from the start.

Contact: www.beg-luxomat.com

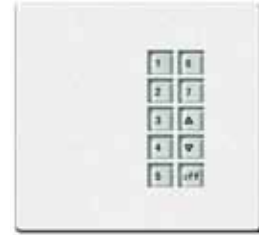
Bischoff Elektronik GmbH
The new KNX power supply SV30.640



The 640 mA power supply with integrated choke delivers energy to one KNX line. To the additional 29 VDC output an area or backbone line can be connected. The device contains several diagnostic and display functions, like overcurrent, undervoltage and bus communication activity. Via integrated switch the connected KNX line can be set into reset state. Actual condition of the power supply is monitored by a build-in isolated contact (OK/error). KNX line output is protected against overvoltage on bus line.

Contact: www.bischoff-elektronik.de

Bridges Electronic Technology PTY Ltd
DCP6X0 KNX Series Panel



The DCP6X0-KNX series panels can facilitate the interaction with the KNX system via manual operation. Each single key is fitted with one red and one green LED indicator. All the operation actions of the DCP6X0-KNX series panels are inhibited at non-programmed status, both sending as well as receiving. The DCP6X0-KNX series panels include many functions, such as switch on/off, toggle, counting, dimming, curtain, A/C, scenes, value, two channel switch on/off, two channel value, etc. Each button of DCP6X0-KNX series panels can be programmed individually by ETS. The LED output status of each button of the DCP6X0-KNX series panels can also be programmed individually.

Contact: www.dalitek.net

Bridges Electronic Technology PTY Ltd
Twelve Channels Relay Module



The switch module receives telegrams from sensors or other controls via KNX. Each switching output has a separate magnetic latching relay so that the states of the switching contacts are safely maintained even in case of bus voltage failure. With the slide switches on the front panel, the relays can be switched on and off manually, next to their operation via KNX, even with missing bus voltage or in a non-programmed state. The switch module has many functions, including extensive timing functions, logic operations, scenes, disabling functions, operating hours counter, etc. Each output of the switching module can be programmed independently with ETS, amongst others its behavior in case of bus voltage failure or bus voltage return.

Contact: www.dalitek.net

BMS – Building Management Systems
KNX IP-Router



High data rates by fast communication – this is what the Ethernet-based KNXnet/ IP protocol stands for. The KNX IP-Router by BMS combines all forms of this communication standard (Routing, Tunnelling, Object server) in just one device. The main application is the connection of the BMS SunControlServers to the KNX system. Furthermore it can also be used as Line Coupler to the fast IP-backbone and as multi-interface (ETS, visualisation, remote access, etc.). The optional power supply via POE ensures the use in modern IP-infrastructures.

Contact: www.bms-solutions.de

BMS – Building Management Systems
KNX MCU-MODULAR



More flexibility through modularity - this is the new generation of blind actuators by BMS. Main and extension modules with four outputs and integrated push button inputs can be combined. The connected products like blinds, awnings, large louvre blades, or roller shutters are damage-proof at any time due to the integrated security objects and the priority management. Sophisticated movement strategies and preconfigured product libraries stand for optimal and individually tailored control of each product. Configuration and commissioning become child's play thanks to automatic detection of end positions and runtime measurement, as well as the SunControlObject.

Contact: www.bms-solutions.de

Busch-Jaeger Elektro GmbH

**The new
KNX presence detectors**



Although they have an extremely flat design, the new Busch-Jaeger KNX presence and movement detectors are outstanding as regards their detection quality and enormous range. Their simple installation and start-up are extra advantages – e.g. at high installation heights the Premium and Sky versions can be switched to programming mode using a standard, Busch-Jaeger, infrared, remote control. Premium models are fitted with a temperature sensor and can also act as room-temperature controllers. The new ETS applications also include the option for switching the light off in two stages.

Contact: www.BUSCH-JAEGER.de

CD Innovation LTD

MS4



The Maestro-Server-4 is a very cost effective, extremely powerful and flexible Control Center for the KNX system and an ultimate gateway between KNX, IoT and other systems as it controls them using RS232, IP and IR. The MS4 is a web and Smart-Phone server utilizing the same unmatched, user friendly, Maestro GUI, simplifying control of home and building systems. It provides all essential functions: schedule and macro manager, powerful function blocks controller, event logger and a KNXnet/IP gateway. The MS4 enables two-way control of external systems such as multimedia and VRV A/C systems. The Maestro script language modules enable writing of complex protocols and energy management algorithms.

Contact: www.cdinnovation.com

CD Innovation LTD

MTS4



The Maestro-Touch-Server-4 (10.1/7" capacitive touch screen) is a high end, extremely powerful and flexible control center for the KNX system and an ultimate gateway between KNX, IoT and other systems—controlling them using RS232, RS485, IP and IR. The MTS4 is a web and Smart-Phone App server utilizing the same unmatched, user friendly, Maestro GUI, simplifying control of home and building systems. It provides all essential functions: schedule and macro manager, powerful function blocks controller, present IP video, event logger and a KNXnet/IP gateway. The MTS4 enables two-way control of external systems such as multimedia and VRV A/C systems.

Contact: www.cdinnovation.com

ComfortClick

**ComfortClick bOS
(Building Operating System)**



ComfortClick has launched a new version of its building automation software – ComfortClick bOS – the first Building Operating System. bOS supports KNX, DSC alarm, IP video cameras, XBMC, Global Caché, IRTrans, Philips Hue, SMA Solar technologies and IP intercoms. An especially exciting new feature is the possibility to combine KNX and Z-wave products. The new GUI features a trendy flat design with improved user experience. Applications are available for iOS, Android and Windows. bOS offers a wide range of automation tasks ranging from logical functions, schedules, data logging and scenes to operating time and presence simulation.

Contact: www.comfortclick.com

dakanimo GmbH

**KNX switch “kamereon”
with new features**



The Hamburg manufactory “dakanimo” is stepping up and presents its switch “kamereon” with new high value functional details: Where previously only the local input control value was displayed, now optionally the wheel shows the last value. In addition, after the set “lag time” after an object had been operated, now the switch also has the ability to jump back to the overall color scheme. The sensitivity, and thus the speed of operation, is also increased by $\frac{2}{3}$, and thus suits digitally experienced users.

Contact: www.dakanimo.com

**DGA – Gebäudeautomation
Deutschland GmbH**

**KNX enthalpy controllers
HVAC Premium**



The KNX enthalpy controllers from our HVAC-premium-series are highly complex controllers for heating, ventilation and air conditioning. With these controllers it is possible to run the HVAC-facility efficiently, and thus in an energy saving and eco-friendly way. Numerous functions are available for controlling, regulation, reporting, alarm and statistics to realize processes in building-automation, without the additional need for computers or controllers. As a result information about climate and usage conditions as well as the operation status of the site can be derived. The functions can easily be assigned according to their applications via selection parameters.

Contact: www.dga-automation.eu

Dialogic Systems GmbH & Co. KG

HomeCockpit Excelsior 2.0: now with KNX-compatible navigation



Power can only be replaced by one thing - more power. The latest model of this revolutionary multi-touch panel PC will perform all control tasks in slow-motion mode using its powerful QuadCore processor. Its features also include a KNX-compatible and customisable navigation bar which can control any devices using the KNX bus. In short, the HomeCockpit Excelsior 2.0 guarantees ultimate top performance. Fast, flexible and reliable from a central position. Get in touch with the future!

Contact: www.home-cockpit.de

Dialogic Systems GmbH & Co. KG

HomeCockpit Major 4.0



A mega-fast all-rounder. In addition to all its familiar top features, the new model of the innovative multi-touch panel PC has a powerful QuadCore processor with 8 GB RAM and 120 GB SSD, making it three times faster than its predecessor. It can even display complex 3-D animated KNX visualisations without jerking. And the latest operating systems such as Windows8 also enable it to control all the communication, multimedia and security equipment in your home for years to come with total reliability. Get in touch with the future!

Contact: www.home-cockpit.de

DINUY S.A.

4-Channels Analog/Digital Interface



This new interface has four independent channels, which may be used depending on the parameterization in ETS:

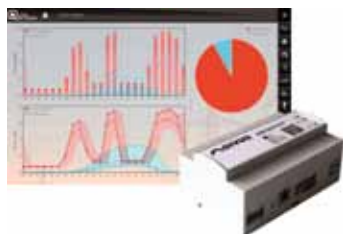
- Binary inputs: can be connected to a push-button, a switch or a potential-free binary sensor.
- Analog inputs: can work as a temperature sensor by connecting an external probe.
- Thermostat: can be configured and enabled as four independent thermostats.

Each one of the four channels can work as switch, switch and dimmer, multiple switch, sequential switch, blinds/shutters control, scenes control, values sending, impulse counter and temperature sensor with external Probe. It has a reduced size of 38 x 42 x 15 mm with a built-in KNX Bus Coupler.

Contact: www.dinuy.com

DIVUS GmbH

Datalog Module



With the Datalog module of DIVUS OPTIMA it is possible to record and display every value of a KNX installation. This makes it possible to record temperatures or other measurements and to display the traced data in the desired graphical format. The representation of the recorded values can be done in various ways. Thus, e.g. a temperature profile can be displayed as a curve, shifts can be displayed as a bar or percentage values as a cake chart. Due to the versatile display options for each measurement a suitable and intuitive display format can be found.

Contact: www.divus.eu

DIVUS GmbH

DIVUS TOUCHZONE, the ideal KNX-Client



The elegant, high-quality solid glass multi-touch panels of the TOUCHZONE family with the display versions 7", 10", 15" and 19" are the ideal KNX clients used with KNX servers made by DIVUS, Jung, Gira ... and offer maximum functionality and freedom for individualisation. In addition to important aspects such as security, functionality, usability and efficiency, the great variety of Android Apps makes DIVUS TOUCHZONE a true all-rounder of the building visualization, which leaves nothing to be desired in terms of personalisation. Building functions, music, intercom, alarm system, e-mail, weather, web pages and other information are displayed on the screen and can be controlled by simple gestures.

Contact: www.divus.eu

DOMOFOX srl

LYRA KNX



Domofox presents LYRA KNX, the new Android App for the supervision of KNX systems. It's an easy and intuitive app that gives 100% autonomy to the end user for setting up parameters. The difference between LYRA and other similar apps on the market is that it doesn't require a PC for setting parameters and no web server installed in the KNX system. At this moment LYRA can manage: lighting, dimming, shutters, heating/cooling, garden irrigation, IP cctv- video surveillance. The app is continuously upgraded with new functions. System requirements: KNX system; KNX/IP tunneling VIVO SPICA; Lyra Application; Wi-Fi /3G/4G connection to use it locally and remotely; Android smartphone. Available on Google Play.

Contact: www.store.domofox.it

DOMOFOX srl
SPICA KNX



The new VIVO SPICA KNX/IP Tunneling Gateway connects the two communication media Ethernet and KNX. The device offers four simultaneous connections and has outstanding features compared to other similar products, for example support for long frames (up to 250 byte length) and the activation of special functions via one configurable button (e.g. transmit all group telegrams). The temporary access to other lines is possible without download from ETS. The most important function is the interface with TCP / IP protocols like that of Crestron, by the use of the proper module available via www.store.domofox.it. The device can also be used as a communication gateway between the LYRA KNX app and the KNX system.

Contact: www.store.domofox.it

easyMOBIZ
mobile IT solutions GmbH
ayControl: Now Available
on Four Platforms



In addition to iPad, iPhone and Android, you can now run ayControl, our modern and cost-efficient KNX visualization, on Amazon Kindle Fire and BlackBerry 10. Thus ayControl is compatible with almost 97 % of all smartphones! And in case no suitable device is available: the newly supported Kindle Fire HD tablets are an economical alternative to wall-mounted panels. Furthermore, the new 2015 ayControl packages contain considerably more device licenses than before. And with the ayControl companion app EcoPilot you can implement automation rules with time, logic and astro clock functions as well as automatically triggered alert messages on a tight budget.

Contact: www.ayControl.com

easyMOBIZ
mobile IT solutions GmbH
Modular Visu
For Large-Scale Projects



Starting 2015, cost-efficient, tailor-made ayControl product variants were offered for large-scale projects (e.g. apartment houses, hotels, smart cities) in addition to their standard products (Silver, Gold and Platinum packages).

- Individual user interface design (CI)
- Integration of special hardware
- Special support by in-house ayControl pros
- Modular system: only pay for the functions you actually need!
- Special functions and OEM solutions

Contact: www.ayControl.com

eelectron SpA
BO08A01KNX – UNIVERSAL
MODULE 8 OUT



The 8 Output module BO08A01KNX is a KNX DIN-rail mounting device that can be used to interface commands or loads of any kind of application. Each output can be configured independently for load control or independently for ON/OFF and continuous switching (PWM) for electric valves (solenoid actuators). The outputs can also be configured in pairs for the management of roller shutters and blinds and for the management of motor reducers or for solenoid valves with 3-point control or for ventilating grids with up to four channels. It can also be used in conjunction with fan coil actuators for 2/4 pipes systems for heating/cooling with three speed motors.

Contact: www.eelectron.com

eelectron SpA
GP06A03KNX –
GlassPad KNX Six Channels



The GlassPad KNX is available in two colors (white and black). The product comes in four different versions: three and six channels for three modules in-wall box or four and eight channels for four modules in-wall box. Every product of the range has LED signaling for each channel and can be installed vertically or horizontally. Pressing the switch can be long or short and every GlassPad can manage scenarios or sequences. The customization of the glass color, texts and icons for residential and commercial environments is available on demand. The product is fully programmable with ETS.

Contact: www.eelectron.com

EIBMARKT® GmbH
New shutter/blind actuator
6-fold EIBMARKT



From March 2015 EIBMARKT presents a new 230 V shutter/blind actuator 6-fold (N000303) with manual operation (mounting method DRA, modular spacing 6). The actuator offers extensive additional parameters, such as Scenes (1 bit/1 byte) for runtime and slat, lock, automatic, security and alarm functions, weather alarms (6 pc), driving limit functions, position feedback (1 bit/1 byte) and much more. The device has also six independent measurement functions. Sensor readings (KNX) can be processed, tested and passed in various formats (1 bit up to 2 byte exp.).

Contact: www.eibmarkt.de

Elsner Elektronik GmbH

New software version of the Corlo Touch



A new software version of the Corlo Touch KNX display brings the automatic settings to the screen. Thus the user himself can readjust and make changes in the room automatic – independently from the ETS settings of the integrator. The extended model of the room controller, Corlo Touch KNX WL, offers a Wi-Fi connector in addition to the KNX interface. The wireless connection can be used for example for the mobile control via a smartphone or tablet PC. The Corlo Mobile App gets all functions of Corlo Touch to the mobile device and allows for comfortable access to the room automatic and manual operation.

Contact: www.elsner-elektronik.de

Elsner Elektronik GmbH

Sewi KNX Indoor Monitor



The Sewi KNX indoor sensor monitors not only the presence of persons and the brightness, e.g. to switch light in an energy-optimized way, but also measures temperature, air humidity and CO₂ for ambient climate control. The sensor is mounted on the ceiling or wall and is available in different variants as single or combined unit. The different models offer additional functions: e.g. the temperature sensors have got a room climate controller as well as summer compensation for cooling, which means that the target temperature in the room is adapted to the outdoor temperature. The devices also feature logic gates and multi-functional modules for transformation and conversion of data.

Contact: www.elsner-elektronik.de

Embedded Systems, SIA

LogicMachine Wall



LogicMachine is wall mounted controller uniting in one device sensors platform, visualisation server with deep customisation, cross-standard gateway, IP Router, scenario and logic engine. There are temperature, humidity, barometer, air quality (VOC, CO₂, CO, H₂S etc.) sensors on-board. The device supports KNXnet/IP. LogicMachine has built-in bi-directional EnOcean, 1-wire, and Bluetooth 4.0 Low Energy interfaces. Some of other software features – remote field-bus control and reprogramming, object logging with trends, data export to cloud.

Contact: www.openrb.com

EMT Controls

Guest Comfort ECO



GuestComfortEco, the next generation hospitality energy saving solution, removes and supersedes traditional card holding energy saver relays. With programmable energy saving scenarios, it emphasizes HVAC automation and maintains higher level of comfort. Its design allows installation both in new constructions and existing buildings. With the KNX based online interface check-in / check-out scenarios can be implemented, real-time occupancy information can be used to tailor room services and hotel staff task plans. Compatible with card holders and EMT Controls patented RealPresence+[®] thermal based occupancy sensor.

Contact: www.emtcontrols.com

EMT Controls

KNX DALI Gateway (2/4 Channel)



HCM115-2 and HCM115-4 are new members of the KNX/DALI gateways by EMT Controls. These devices can target big applications such as shopping centers, hotels and airports. They provide two and four DALI channels, 128 and 256 ballasts respectively. It is easy and reliable solution to use KNX as backbone for the automation and control the ballasts using the DALI bus. Bonus: HCM115 series has built-in USB port, so no need for DALI/USB cables during commissioning and troubleshooting.

Contact: www.emtcontrols.com

Exor International S.p.A.

DomiOP eBIS513



The eBIS513 from EXOR International is an advanced KNX HMI device combining top performance with an outstanding design. Easy to use, it is the ideal choice for all demanding HMI applications in building automation. The eBIS513 features a 13,3" widescreen TFT display with a 1280x800 pixel (WXGA) resolution. JMobile, Exor International's software platform for monitoring and control, offers an innovative and efficient solution for the realization of the new requirements in home automation. The product supports the KNX protocol with IP and TP interfaces. Additionally the product supports BACnet (MS/TP and IP) with data gateway capability.

Contact: www.exorint.net

**Gewiss SpA
HAPPYHOME**



HAPPYHOME is the new Gewiss APP for local and remote management of a KNX system from mobile devices (Tablets, Smartphones). Easy to configure and easy to use, the APP allows you to control and display the lighting, roller shutters, Venetian blinds, configure and execute scenarios, adjust the temperature and humidity of each room, monitor energy consumption and manage the burglar alarm. HAPPYHOME does not require any server to communicate with your home. Access to the KNX system is direct: all you need is a GEWISS KNX/IP interface connected to the KNX bus to manage up to five simultaneous connections.

Contact: www.gewiss.com

**Gira Giersiepen GmbH & Co. KG
Gira KNX CO₂-sensor**



Exchanging humid air regularly is essential, particularly in well-insulated buildings. This yields positive health benefits by preventing the growth of mold. In the long term, preventing mold growth ensures the quality of the building structure. Combining certain functions is possible via the KNX system, which also helps save energy by enabling the need-based use of functions. For example, if the Gira KNX CO₂-sensor detects excessive humidity in a room, the window is opened automatically and the air is exchanged. At the same time, heating is turned down so warmth doesn't go "out the window" unnecessarily.

Contact: www.gira.de

**Gira Giersiepen GmbH & Co. KG
Gira HomeServer 4**



A KNX installation guarantees convenience, security, and energy management in buildings. The Gira HomeServer 4 features a new housing and sets new standards in the field of networking. With its increased memory capacity and better performance, it offers numerous possible applications, including the control of light, blinds, and heating, multimedia entertainment in any room, panic switching, occupied-home simulations, and need-based energy management. Moreover, the complete building technology can be controlled using the HomeServer 4 in collaboration with diverse operating devices, either centrally with the Gira Control Clients or while away using smartphones, tablets or laptops.

Contact: www.gira.de

**Guangzhou Tantron
Electric Co. Ltd.
Switch Actuators**



Tantron presents its new 4, 8 and 12 fold 16 A per channel switch actuators with mechanical and manual switch function. Each channel can be separately programmed via the BUS, as a switch, preset, force, timer, scene and staircase function. The device does not need any additional power supply, the relay is silent and acts quickly. These KNX switch actuators can be mounted on a 35 mm DIN-rail.

Contact: www.tantron.com.cn

**Guangzhou Hedong
Electric Co. Ltd. (HDL)
DALI Gateway M/DALI. I**



The HDL KNX product series M/DALI. I fully comply with European safety standards and the KNX protocol. The functions of this product include central control, control of 16 groups/24 channels/32 scenes, 16 additional functions (staircase light, sequence control, emergency) and fault detection. One special feature is that the product allows recovering information from other products, e.g. when replacing a device with a new one.

Contact: www.hdlchina.com

**Guangzhou Hedong
Electric Co. Ltd. (HDL)
Motion Sensor M/IS05. I**



The new HDL KNX sensor -M/IS05. I includes four independent logic blocks and one combined logic block. Each logic block can be combined with the condition of motion, brightness, an external condition and two dry contacts. Possibility to create AND or OR respectively logic. Switch, absolute dimming, shutter, alarm, percentage, sequence, scene, string (14 bytes), all can be used as control function. The sensor can be configured as master or slave mode, it can report the current status of every condition to adapt different environmental requirements.

Contact: www.hdlchina.com

Hefei Ecolite Information Technology Co., Ltd
Intelligent Gateway



With the new Intelligent Hefei Ecolite Gateway, one can create complex logic control as well as a visual KNX interface in the easiest possible way, resulting in control functions realized with low cost and with great flexibility. The intelligent gateway can freely convert and allow communication between various standard protocols, including KNX. Power is supplied with 24 V/30 VDC and the device has a built-in clock. Thanks to the intelligent terminal interface control, it is possible to realize KNX visual graphics via for instance iPad/iPhone. Very versatile in its use!

Contact: www.mrtlc.com.cn

Herholdt Controls srl
KNX Three phase Energy Meters



DIN-rail Energy Meters for three phase alternating current, with external CT's and direct connection up to 63 A. The instruments measures active and reactive energy according to two tariffs and the built-in KNX communication allows to read up to 42 measures.

- 9 digits LCD
- Direct connection 63 A or CT connection (.../1 A and .../5 A)
- Detection of connection errors
- Accuracy class I for active energy according to EN 50470-3 (B)
- Current operating range (I st... I max) for direct connection 0.25–5 (63) A, for CT connection 0.01–1 (6) A or 0.05–5 (6) A
- Energy register zero setting
- Energy register "Partial kWh" resettable
- Energy register for import and export
- Sealable terminal covers
- Four DIN modules wide (72 mm)

Contact: www.hhcontrols.com

Home Systems Consulting SpA
HSYCO 3.4.0



The new HSYCO 3.4.0 release includes a redesigned KNX driver, with significant performance improvements and enhanced reliability. This version also adds several other drivers to control third-party products, like the BOSCH FPA fire panel, the BOSCH MAP security panel, the Victron Energy VE.Direct protocol for the BMV700 battery monitors, the Cradlepoint IBR 3G/4G routers and the Vaisala WXT520 weather station. Using HSYCO as a gateway, it is now possible to integrate all these products in any KNX installation. HSYCO 3.4.0 also includes many more enhancements and bug fixes.

Contact: www.homesystemsconsulting.com

Ingenium Ingeniería y Domótica SL
RKLED



The RKLED is a proportional actuator that allows regulating LED lights with or without incorporated transformers. It is designed to achieve a precise digital regulation by receiving commands via the KNX bus or from any conventional push button connected to its low voltage input by using the long/short pulsations method. The regulating ramp speed (on/off lighting) and other dimming characteristics behaviour of the product when switching ON or stairs light time, can be configured by programming. The product's digital regulation control is handled by a microcontroller with more than 200 regulation points. This proportional actuator is available in three versions: 1-channel up to 500 W, 1-ch. up to 1000 W or 2-ch. up to 400 W each.

Contact: www.ingeniumsl.com

Ingenium Ingeniería y Domótica SL
SmartTouch



4.3" vertical capacitive color touch screen to control and monitor elements in a KNX installation. Possibility of managing an independent climate area with internal temp sensor and support for scenes, timings and chronothermostats. It also includes WiFi connectivity to control from any iOS or Android device in local or remote mode, through official Ingenium Apps. The background, the controls, the icons and the text are fully customizable. In this way the panel can be fully adapted according to the location where it is installed. The panel has been designed to show eight controls per page up to a maximum of 32 controls, divided into four pages interchangeable with a simple side-scrolling.

Contact: www.ingeniumsl.com

Intesis Software S.L
KNX to EnOcean gateway new features



Intesis has improved the IntesisBox KNX to EnOcean gateway by adding new EnOcean products to its database, like the electronic radiator valves from Kieback & Peter, Thermokon and Hora among others. The IBOX-KNX-ENO-A1 is a very powerful gateway that connects both KNX and EnOcean technologies in a bidirectional way and is able to integrate almost every device in the market by using its available 253 Group Objects. Even when new EnOcean products are released, it is possible to upload them in the gateway by importing a special XML file, which allows adding new devices without the need to change firmware or database of the gateway.

Contact: www.intesis.com

Intesis Software S.L
New IntesisBox KNX
for Samsung AC units



Intesis presents its new gateways SM-ACN-KNX-4/8/16/64 for the integration of the new AC units from Samsung with the NASA protocol, into a KNX system. The gateways have direct connection to KNX TPI and are connected directly to the AC outdoor units. Different versions are available controlling up to 4, 8, 16 or 64 indoor units, all of them allowing control and monitoring of common parameters like mode, setpoint temperature, fan speed, and so on, of every single indoor unit separately. These new IntesisBox gateways can be programmed, in a very easy and intuitive way, by using the Intesis LinkBoxEIB software.

Contact: www.intesis.com

iRidium Mobile Ltd.
iRidium Server



The iRidium Server is a new component of the iRidium ecosystem. It's a software server solution with extensive functions: schedules, logics, built-in base for saving data, a well-stocked driver system for different automation systems. The iRidium Server can be used on different hardware platforms with different OS: Linux, Openwrt, Windows, Mac. The iRidium server and client are a unique combination offering such features as: energy saving, trends, scenes, fully-customizable GUIs for iOS, Android, Windows and OS X, integration with A/V and Media Servers, MxPeg & H.264 support, QR-code access, worldwide access to control. At present iRidium server is successfully tested on LM3,4, Openboard from GC, x86+windows, ARM+Linux.

Contact: www.iridiummobile.net

ise – Individuelle Software-Entwicklung GmbH
Secure remote access
with ise smart connect
KNX Secure



From all other the world, you can now access your KNX installation securely and perform maintenance, or access web pages. Up to now, you could use either VPN (significant configuration effort) or Port Forwarding (absolutely unsecure). The easy-to-use and secure solution provides the "ise smart connect KNX Secure". No costly setup of the Internet router or DynDNS account is required. Web pages can be accessed easily with any browser. For remote maintenance, use the Secure Device Access Client and you have immediate access to your KNX installation with ETS, or to your HomeServer with the HS Expert – working without any problems also via LTE / 3G.

Contact: www.ise.de/en

iSimplex
iSimplex Home Server:
better than ever!



iSimplex is improving its key product: the iSimplex Home Server. For a start, the product was changed to the new hardware from Intel – NUC – which is more reliable and stable. Changes were however not limited to the server hardware: also the software has undergone major changes:

1. iSimplex is investing heavily in intelligence. One of the new features is called "Logic Functions" and allows you to program directly into the system using JavaScript.
2. The user interface was completely rebuilt in line with Google's material design guidelines, allowing for a more simple and natural navigation.

Great ambitions for a great future! Stay tuned for the launch of the new version 6.0 of the iSimplex Home Server.

Contact: www.isimplex.com

Albrecht Jung GmbH & Co. KG
The KNX energy sensor



The new JUNG KNX energy sensor for DIN-rail mounting has three channels for connecting to appliances. For each channel, voltage, current, effective power and reactive power can be ascertained with high precision. Up to 32 counters are available for measuring the energy. The energy monitoring takes place on the JUNG KNX Smart Panel 5.1 for example. The values here can be stored over months and years and displayed by means of a structured bar chart. This enables users to identify any possible savings potentials and to optimise their deployment of energy.

Contact: www.jung.de/en

Albrecht Jung GmbH & Co. KG
The KNX weather station



All critical sensors for capturing and evaluating meteorological data are incorporated in one compact design in the KNX weather station with integrated bus coupling unit. Wind speed, wind direction, brightness in four directions, twilight, global radiation, precipitation, relative air humidity and air pressure are measured through integrated sensors. The calculation of further data such as absolute humidity and perceived temperature is also carried out. The integrated GPS/GLONASS receiver provides the necessary data for implementing intelligent shade operation for up to eight frontages.

Contact: www.jung.de/en

Legrand S.A.
KNX presence detectors



Legrand presents its new range of KNX presence detectors. With different installation factors and detection technologies they are ideal for any kind of environment: corridors (PIR ceiling mounted), offices (PIR+US wall or ceiling mounted) and outdoor areas (multi-detection PIR IP55). Completely customizable, they offer a wide range of advanced functions such as: dimming speed and pace, lighting set points, time delays,...

Especially for hotels, the products also embed a "Virtual keycard" function to replace the badge holder as room logics trigger. Last but not least, to improve the ease of use it is possible to modify the sensor's main parameters with a special commissioning tool, without using ETS.

Contact: www.legrand.com

LOYTEC electronics GmbH
L-ROC Room Controllers



LOYTEC presents the freely programmable room controllers with I/O expandability. The high-performance controllers can be directly connected with KNX devices through KNXnet/IP or through KNX TPI by using the optional LKNX-300 module. The L-ROC devices build up the management level and provide all automation functions, scheduling, alarm monitoring, trend logging, and also visualization features, and thus open up multiple areas of application for room automation. As one of its latest features, the L-ROC controllers now also support connectivity to WLAN and MESH networks.

Contact: www.loytec.com

Makel Elektrik Malz San. Tic. A.S.
KNX PushButtons – MSW100X-PL



Makel® offers price efficient solutions for 2, 4, 6 and 8-fold KNX Push Buttons. Each button is individually configurable (switching, dimming, shutters/blinds, HVAC control, scene, send values), can be individually blocked, has a delayed emission option and has a configurable indication LED. It is powered with an extra software block enabling creation of logic operations from bus messages expanding possible solutions without extra computation unit: four channels configurable as "logic operation" or "copy and forward". "logic operation" to control switching, scenes or values by computing logic (AND, OR, XOR) of up to four inputs. "copy and forward" for forwarding messages received in one Group Address to another.

Contact: www.makel.com.tr/en/

MDT technologies GmbH
AZI-0316.01 / AZI-0616.01



The new MDT Switch Actuators with active power measurement switches up to six loads. Each output has a rating up to 20 A (C-load), a LED and a push button for manual operation. Effective performance data like current, voltage, active- and reactive power and are available for each channel and in total summation. After over-/undershoot or master/slave (reaction < 1 s) devices can also be switched off after e.g. 20 s. By the adjustable switching threshold the hour meter only counts the real switch-on times without standby times. The actuator has an extensive application. The devices are available with three channels with 4SU case and with six channels with 8SU case.

Contact: www.mdt.de

MDT technologies GmbH
SCN-LCDGW/S.01



The MDT Glass Central Operation Unit with large LCD display, integrated room temperature controller and logical functions optionally shows inside/outside temperature, the desired value, current time and sunrise/sunset time. There are two direct switching functions (light, shutter) and 20 other functions (via menu) selectable. With a single touch you select the desired value and the operating mode (e.g. comfort or standby). The ventilation can be controlled stepwise by hand or automatically. Alarm or text messages are received as 1 bit or 14 byte telegrams. The devices are available in white or black (Glass 92 x 92 mm), the bus coupling unit is integrated.

Contact: www.mdt.de

NETxAutomation Software GmbH
Energy reporting with NETx BMS Server



The latest version of the NETx BMS Server includes the so called MaRS Module. This module can display, analyze and process smart metering data. The functions are as follows:

- collection of consumption values from any energy resource
- cost calculation
- definition of a hierarchically organized cost structure
- creation of virtual meters
- generation of user specific documentation e.g. charts, graphs or tables
- automatic forwarding of consumption and billing data
- comparison with complementary data

Contact: www.netxautomation.com

NETxAutomation Software GmbH
XLogic Editor



The XLogic Editor is a graphical editor for implementing logics within the NETx BMS Server. Via these logics new control functions can be added and existing data can be extended. Following functions are available:

- reading and writing of data points
- performing of mathematical operations
- sending e-mails
- writing of logging information
- accessing the current status of the server
- invoking LUA functions

The user gets a number of pre-defined functional blocks provided, which cover various applications. In the latest version of the NETx BMS Server the XLogic Editor is available without extra charge.

Contact: www.netxautomation.com

Russound, Inc
KNX-RIO-1



The Russound KNX-RIO-1 Gateway is a new product in the Russound line bringing Russound's award winning X5 and MCA Controller products into the vast world of KNX, and allowing Russound Streamers and amplifiers to be controlled by elegant KNX panels. The KNX-RIO-1 supports control for up to 16 zones, 8 sources and 32 System Favorites. It is configured in ETS Software to perform basic zone control and basic source control functions and supports metadata feedback to KNX panels. The KNX-RIO-1 has standard Ethernet connection, KNX Bus connections that provide power and installs on standard DIN rails.

Contact: www.russound.com

Schneider electric
KNX universal dimming actuator LL



With the KNX universal dimming actuators for two and four channels, Schneider Electric presents two new actuators optimized for dimming LED lamps. As universal dimmers they control other loads reliably as well. Connecting different phases is possible. An additional relais switch prevents the flickering of LEDs in switched-off state. Moreover, the actuators will convince you with innovative software functions such as load separation, 50% brightness when starting ESL/CFL lamp or the improved memory function. Feasible combinations of dimmers and lamps can be traced thanks to the Schneider Electric *DimmerTool*:
<http://schneider-electric.dimmer-test.com>

Contact: www.schneider-electric.com

Sinapsi srl
EQUOBOX_MANAGER SOLUTION



The Equobox manager solution allows metering energy and other resources in a building based on the EQUOBOX ETA SERVER. It's a next-generation WEB supervisor for intelligent buildings based on the KNX standard. An integrated web interface for graphical analysis of consumption data and definition of energy efficiency logics are possible via KNX and an integrated management of automation functions (lighting, scenes, climate, shutters, energy, communication) with graphic support is available via a web browser interface. General features include multiplatform system, highly customizable, quick and easy to setup, flexible and modular integration of consumption management, customizable web sever interface, ...

Contact: www.sinapsitech.it

T2M2 GmbH
Edition3 PC215 AP



The Edition3 PC215 Touch Panel is now available as surface variant and can be mounted on the wall via VESA mount. It offers the same attractive timeless design as the in-wall version. With its 4x 1.9 GHz Intel processor, it can handle even power-intensive tasks and can be integrated in the KNX bus with the optional KNX interface.

Contact: www.t2m2.de

TAPKO Technologies GmbH
Energy harvesting with KAlstack RF+



TAPKO is proud to announce the support of the AXSEM AX8052F143 in its KAlstack RF software. The "System on a Chip" Ultra-low Power RF-Microcontroller is the lowest-power RF-microcontroller with constant RF-output power over the specified supply voltage. Highlight of TAPKO's KAlstack system software is the possibility to use an application developed for TP unchanged on the medium RF. This eases the way to the retrofitting and residential market. Using the AX8052F143 (best energy efficiency) enables energy harvesting and self-powering techniques. This reduces costs, maintenance and waste over the life time of a product since most RF devices are battery powered today.

Contact: www.tapko.de

TENSE Top Design Switches bvba

Gold & Brushed Gold Touch Button Switch and Room Controller



TENSE has created a gold and brushed gold version of its INTENSITY touch button switch and its INFINITY room controller. The multi-color LEDs of the 1/2/4 touch zones are lit up when touched, turning the INTENSITY & INFINITY into a special and pure pleasure for the eyes. TENSE offers a wide range of functions on the touch buttons making it more than just a light switch!

Contact: www.tense.be

TENSE Top Design Switches bvba

TENSE MOTIVITY detector



TENSE has launched a new MOTIVITY detector in two versions!

- Ceiling: Brightness control, t° sensor and motion detection in one! Diameter of only 16 mm, an operating range of 8 m at a height of maximum 4 m with a 360° view!
- Wall: Motion detection and t° sensor in one! Available in glass, aluminum, stone and corian.

Contact: www.tense.be

Theben AG

KNX MIX2 binary inputs



The six floating universal and wide-range voltage inputs of the new BMG 6 T KNX can be extended with up to two BME 6 T KNX extension modules to 18 channels. True to the MIX2 principle, modules with other functionalities can be connected as well. All binary inputs can be operated with different voltages and at different potentials. Cable lengths of up to 100 m can be connected. Due to the free allocation of functions such as switches/push buttons, dimming, blinds/rollerblinds, valuator, counters and scenes, they are extremely versatile in their application.

Contact: www.theben.de/en

Theben AG

Motion detector theLuxa P KNX



With its detection area of 16 m, theLuxa P300 KNX is ideally suited for commercial buildings. Thanks to its joint, it can be installed either on the ceiling or on the wall. It can be easily integrated into KNX installations. Parameters, such as brightness, time delay or lux value can be set via the ETS software, via optional remote control, or at the device. With four channels each for motion and four channels for temperature and light, the KNX motion detector offers highest flexibility. Furthermore, theLuxa P300 KNX offers logic functions and a simple week timer.

Contact: www.theben.de/en

Theben HTS AG

Motion detector theMova P KNX



With its large circular 360° detection area of up to 24 m in diameter, the new theMova P KNX reduces the number of required detectors per area. Since it detects motions even from a height of up to 10 m, it is the ideal detector for high rooms. If theMova P KNX detects more than required, its detection area can be reduced with cover clips. It leaves nothing to be desired in terms of user friendliness: switch-on brightness, time delay, as well as many other parameters and external consumers, such as blinds, can be set conveniently via remote control or via ETS.

Contact: www.theben-hts.ch

Theben HTS AG

Motion detector theMova S KNX



theMova S 360 KNX has a circular 360° detection area of up to 64 m² and is suited for small rooms, toilets, corridors, and others. This surface mounted product can also be used for wet rooms, thanks to its IP54 rating. The product is quick and easy to install with its butterfly springs. It leaves nothing to be desired in terms of user friendliness: switch-on brightness, time delay, as well as many other parameters and external consumers, such as blinds, can be set conveniently via remote control or via ETS.

Contact: www.theben-hts.ch

Tokka Sp.Z o.o

Flush mounted switching actuator SA0205



KNX flush mounted switching actuator has two potential free outputs – each of them can work with maximal current 5 A, 250 V AC. Each channel equipped in screw terminals can be used for the control of lighting applications with different software settings. The switching actuator is made for flush mounting and can be placed in round, square and rectangular installation boxes. It can be an alternative solution for installations where energy receivers are to be controlled out of the main electrical distribution box. KNX bus connection is provided by the standard bus terminal grey-red. Neutral wires are not required.

Contact: www.tokka.pl

Tokka Sp.Z o.o

Flush mounted bus interface FMBI6 I



Flush mounted bus interface module FMBI6 I is mixed version of two KNX devices – push button interface and binary output. The device has six inputs with the detachable plug and the switching output: 1 A / 30 V DC or 0.5 A / 125 V AC. Each input as well as the physical output is parametrised individually by the installer. ETS application allows also for definition internal connections between inputs, physical and virtual outputs with trigger release. AND, OR and Duplicator gates can be used when logical operations should be executed.

Contact: www.tokka.pl

Trivum technologies GmbH

FlexLine



With the new FlexLine trivum presents the most flexible and most compact audio Multiroom solution for installers. The models SC340, SC344 and SC348 all include four independent streaming clients as well as four stereo amplifiers with 30 W per channel. So each room can stream completely independent music. The models differ in the number of analog inputs and FM tuners included. The thin steel cases reach high flexibility by the low height of only 4 cm. The devices can be thereby placed easily on walls, shelves or in the electric cupboard. The models support KNX and can be combined with other trivum multiroom products.

Contact: www.trivum.com

Trivum technologies GmbH

RegLine



With the new models RP010, RA210 and RA410 extends trivum their DIN rail based audio system product family. The new models offers a reasonable entrance in real multiroom with full flexibility of the system. The network audio player RP010 offers a streaming client which can be used for playing music from a NAS, from internet streaming services, from internet radio or from Air-Play. As perfect supplements the amplifiers RA210 (2 x 20 W) and RA410 (2 x 40 W) are available. The new models are controlled like every trivum solution: via optional trivum TouchPads, an iPhone App, any web browser, via KNX Group Addresses as well as from 3rd party visualisation solutions.

Contact: www.trivum.com

VIATRON GmbH

The Autrix extension: AutrixCast



The multi-room audio system Autrix now offers with the “AutrixCast” a free internet service as an extension to the MusicClientOne (integrated webradio and MP3 player). In addition to free storable favorite stations the “AutrixCast” automatically provides other channels, which are compiled by a team of music experts and updated regularly – sorted by genre. So there is something for every musical taste: whether you are looking for a new soundtrack for your fitness training or for the perfect feel-good mix – just push a button. And the handling? Simple and clear as usual. A true plug-and-play Internet radio solution – fully integrated in KNX!

Contact: www.viatron.de

Vimar SpA

Vimar KNX motion detector



The Vimar KNX motion detector is able to detect movements within the range of its sensor, activate the lighting only when people are present and thus contributing significantly to the optimisation of consumption and elimination of waste. Thanks to the communication with the other KNX devices in the system, the device, on detecting motion, allows activating not only the lighting, but also the previously set scenarios. In addition, thanks to a built-in light sensor, the detector controls switching the lights on or off depending on the ambient light.

Contact: www.vimar.com

VISAM GmbH

Flexible and connective automation server



VGATE-CSi is VISAM GmbH's latest automation server for industrial and building automation. It conducts the data acquisition and data exchange between different systems, interfaces and protocols. In building automation, the CSi handles the control of lighting, heating and shading systems as well as the complete energy monitoring and data acquisition for the energy management according to ISO 50001, which it presents as real-time HTML5 websites for PCs, tablets and smartphones. VGATE-CSi is supplied with the visualisation system VBASE HMI/SCADA and is of course compatible with the KNX standard.

Contact: www.visam.com

Weinzierl Engineering GmbH

KNX BAOS Module 838 kBerry



The KNX BAOS Module 838 kBerry is an adaptation of the proven KNX BAOS modules specifically made for the Raspberry Pi. It can be attached directly to the pins of the Raspberry Pi and communicates via a galvanically isolated serial port. The pin strip is carried out, allowing more connection options. The module includes a certified KNX stack and can be configured with ETS. A generic ETS database provides up to 1,000 Datapoints. Individual ETS entries can be created with the KNX Manufacturer Tool (KNX MT). The power of the KNX part is supplied by the bus. The kBerry SDK for the Raspberry Pi is available as a free download.

Contact: www.weinzierl.de

Weinzierl Engineering GmbH

KNX PowerSupply 366



The KNX PowerSupply 366 is a 640 mA power supply with high efficiency and a small footprint of only 4 TE (72 mm). The device has a bus choke and additionally provides an output for auxiliary power. The integrated KNX node monitors output current, bus voltage and the temperature in the enclosure. The configuration is done with ETS. An easy to read OLED display on the front panel enables you to display the operating parameters locally on the device.

Contact: www.weinzierl.de

Wieland Electric GmbH

Bidirectional KNX – EnOcean gateway



The bidirectional gateway is integrated into the gesis FLEX system housing which is developed for decentralised installation. It converts all current EnOcean Equipment Profiles (EEP) into KNX telegrams and vice versa. The commissioning of the KNX functionality is done with ETS. The settings of the EnOcean links are done via the integrated display or with a free of cost software using the same KNX network used by ETS. This allows an easy integration of the self-powered EnOcean sensors from switches to room thermostats into KNX. In addition the application has an extensive logic and control part.

Contact: www.wieland-electric.com

Wieland Electric GmbH

News of the modular gesis FLEX series



The room automation series gesis FLEX of Wieland Electric is modular, compact, 100% pluggable and guarantees quick, reliable and error free installation. The functionality of the basic module, which can handle six extension modules, has been expended significantly. In addition to the existing standard I/Os for light and blind control new expansion modules are available: one DALI module with four broadcast channels for 16 DALI-ballasts each, two shutter modules with fuses for each of the two AC or DC drives and three semiconductor modules with four outputs. The semiconductor modules are available in a DC version with fuse and an AC version with or without fuse.

Contact: www.wieland-electric.com

Zennio Avance y Tecnología, S.L.

MAXinBOX Hospitality



This new actuator is Zennio's contribution to the hospitality market. It includes a controller for 2 or 4-pipes fan coil with up to three fan speeds, 2 x 16 A C-load additional relay outputs for general purpose and six analog-digital inputs for any combination of push buttons, sensors, switches, temperature probes or motion sensors. It also provides a ten logical functions module and Master Light control. Manual operation and status indicator for fancoil fan speeds, valves and digital outputs to ensure out-of-the-box professional testing and customer satisfaction. No need for auxiliary power supply.

Contact: www.zennio.com

Zennio Avance y Tecnología, S.L.
Square TMD – Display



Square TMD-Display is a new customizable Zennio room controller designed for homes, offices and hotel rooms. Everyone can create unique compositions with images, icons, text or logos, to be printed on a high-strength tempered glass. Square TMD-Display has five buttons to manage the desired controls climate, audio, shutters, lights... in an intuitive way. The display can show up to eight indicators of different types (icons, text or numerical). It also includes thermostat, built-in temperature probe and two analog-digital inputs for temperature probes, motion or dry-voltage sensors, switches or push buttons.

Contact: www.zennio.com

Downloads: www.knx.org → [downloads](#) → [flyers](#)

National Groups



KNX Australia plays active role at Integrate Show in Sydney

KNX Australia made a prominent appearance at the Integrate Show in Sydney from 26–28 August 2014. This fair, aimed at A/V integrators, welcomed KNX Australia with its own stand for the first time. The stand was staffed by KNX Australia members including Hager, Somfy, ABB and

MySmartCTI. On the second day of the fair, Joost Demarest, CTO of KNX Association International, was invited as key note speaker to the show's conference. His speech included the topics smart homes and buildings, smart metering, the smart grid, and the KNX city – the solution for sustain-

able cities. In the afternoon, representatives of KNX Australia and KNX International, together with a moderator of the local "Connected Home Magazine", answered questions from the audience on the topic of smart homes and energy efficiency today, as well as what the future may have in store.

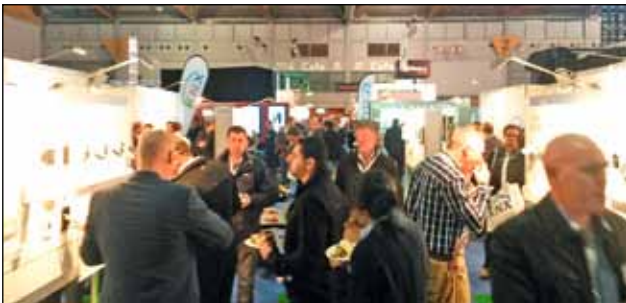


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The KNX Australia booth at Integrate



The KNX Panel during the Forum discussion

5th edition of the KNX Belgium Event

KNX Belgium organised its annual event on the 4th of September for the 5th time in a row. As usual, the organisation was in collaboration with the KNX Scientific Partner and certified KNX Training Centre Thomas More Campus De Nayer. Several interesting topics were on the programme, including new developments of the KNX National Group Belgium,

the ETS5 and several interesting solutions. The main focus of the event was on intelligent energy control and charging of electric vehicles.

After the presentations a fair with stands of the manufacturers of KNX Belgium took place, at which KNX controlled charging systems for electric vehicles were demonstrated and visitors had the opportu-

nity to take a test drive in the electric vehicles. Students of the "Thomas More Formula Student Team" demonstrated the acceleration performance of their own developed electric racing car.

With more than 350 registrations, the event was once again a great success. Two ETS5 licenses were won by Verplaetsen bvba and Casadomotiv.



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Visitors during the test drive



Annual meeting of the KNX National Group Belgium

KNX Road Show Brazil

After successful KNX Road Shows in Asia, Middle East, Australia, it was just a matter of time for KNX Association to organise the first KNX Road Show Brazil. The host country of the Football World Cup and the upcoming Olympic Summer Games is one of the world's emerging markets,

with a great potential for KNX. The first event of the KNX Road Show was held in Florianopolis on the 9th of October, followed by events in the capital Brasilia and the final event took place in Brazil's business hub Sao Paulo on the 17th of October. During each two day stop, KNX Members and Part-

ners explained the benefits of the KNX standard. Each stop was concluded with a KNX Training Session, organised by the local training centre in each city. KNX Association would like to thank everyone, who supported this Road Show and made it a big success!



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First event of KNX Road Show in Florianopolis



Networking in Sao Paulo

Successful participation of KNX China at SIBT 2014

With 19 KNX Members at the joint booth, KNX National Group China proved again its importance for the worldwide biggest country. The performance of KNX China and the new booth design at the Shanghai International Intelligent Building Technology attracted again a huge crowd from different fields of the local and international industry. Additionally to the fair, KNX China organised "KNX Technology and Application Workshops" during the days of the exhibition. This gave the visitors also the possibility not to only get



The KNX technology and applications workshop

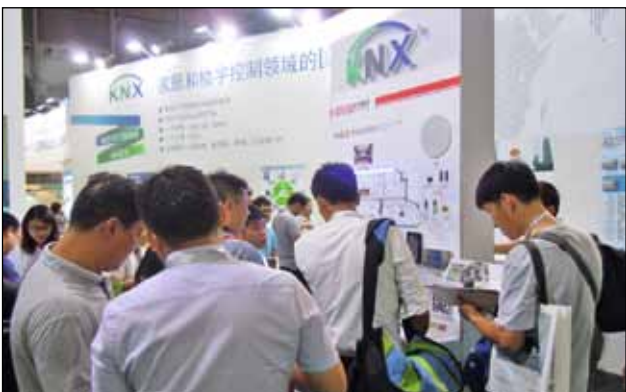
familiar with the benefits of the worldwide STANDARD for home and building control, but

also to understand it from the technical point of view. Due to the continuous efforts of KNX



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China and its members, the whole performance was again a major success.



KNX booth at SIBT in China



First KNX event in Czech Republic completely sold out

Growing economy, raising demand for KNX and high enthusiasm – this is how the Czech market can be described the best. For the 1st Czech Forum of KNX Technology and Application, 80 participants joined the first KNX event in Czech Republic, leaving no free seat available. Presentations were held by major KNX manufac-

urers, as well as KNX Partners, KNX Training Centres and KNX Scientific Partners. The agenda was highly appreciated by the audience due to the many topics, which have been covered during the four hours. Especially the low average-age of this forum made the event very lively and proves the high potential of KNX in the long

run. Prior to the KNX Forum, KNX members and partners got together in order to discuss the foundation of a local Czech platform, better known as the KNX National Group. Thanks to the high enthusiasm of the Czech KNX community, more events in Czech Republic are destined to be organised in the very near future.



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The KNX Forum in Prague

1st KNX Partner Day

KNX Finland organised the first KNX Partner Day, open to KNX Finland members as well as all certified KNX Partners. The event was attended by over 120 participants, representing

nearly one third of all the partners in Finland and more than 50 % of the KNX National Group's members. High-quality speeches were delivered by representatives

of Rakli (Association of Building Owners and Construction Clients) and Senate Properties (Finnish real estate managing enterprise), as well as STUL (Installers association) and



SSTL (Organisation of wholesalers and suppliers). The parallel exhibition for suppliers underlined the huge success of this event.

To make this event even last longer, every participant received KNX giveaways, including a KNX USB-drive, containing updated technical documentation and all Finnish flyers. The event was concluded by completing a questionnaire by every participant. The results will help KNX Finland to develop the market more future-oriented.

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KNX Partner Day in Finland with over 120 participants

ETS5 conference in Lyon

KNX France invited to a conference in Lyon on 17th October 2014 devoted to the new ETS5. After the opening speech of KNX France' President Mr. de Carné, Dan Napar presented developments of energy efficient buildings, the conse-

quences of French regulations and the role KNX in all these topics. Joost Demarest, CTO of KNX Association, presented the recent activities of the international association, the growth figures, the renewed eCampus and Online Shop ("myKNX").

The final presentation was given by Jean-François Klotz, from the KNX KNX certified training center LECS, which showcased the new features of the ETS5. The presentation was highly appreciated by the 80 participants and resulted in a Q&A Session.



Conclusively a demonstration was given on monitoring the traffic of a mixed TP/RF installation via a KNX USB Interface, without the need of a physical connection between the installation and the PC. The success of this conference immediately led to the decision to organise this event in other regions of France in 2015.

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Jean-François Klotz presenting the new ETS5 features

KNX Germany organises 5th Colloquium

For the fifth time in a row the German Electrical and Electronic Manufacturers' Association (ZVEI) and KNX Germany organised its annual Colloquium in Frankfurt on November 14th, 2014. Focused topics were the current home and building automation market and its technologies. 150 participants could learn amongst other topics about the achievements of KNX as a system providing seamless interworking and offering with the ETS5 a tool for design, configuration and commissioning of KNX installations. The presentation of the achievements was concluded by the announcement that KNX will continue to protect these unique value propositions, even in the upcoming age of the Internet of Things (IoT), next to providing ways to secure KNX installations. During the following panel discussion with representatives of industry, the German Ministry of Economy, integrators as well as the Smart Home Initiative Germany, there was room for lively discussions between the speakers, panel and the audience.



Harald Hasenclever (right in picture) during the panel discussion at the KNX German Colloquium in Frankfurt



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Big crowd at the 5th German colloquium

KNX India signs MOU with IEEMA

2014 was a very active year for KNX India in many ways. Highlight was the participation at Elecrama, the biggest fair for home and building control in India. The great appearance at the fair raised especially the interest of the Indian Electrical and Electronics Manufacturers Association (IEEMA), India's biggest association, with its special interest in building automation.

IEEMA approached KNX India to sign an MOU, including amongst others the agreement to join forces for further



Strong partner for KNX India

events all over India. By signing the MOU, more events are in the pipeline, such as the participation at Intellect in January, as well as workshops and activities, both for the Indian

KNX community as well as the many members of IEEMA. The MOU between KNX India and IEEMA will help to further spread the awareness for KNX on a larger scale in India.



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KNX Ireland re-energised

Despite the much publicised issues faced by the Irish construction market over the last few years, the industry and in particular KNX have emerged even stronger with some particularly high profile projects. Examples of such projects are: Apple European Headquarters, 3 Arena (formerly O₂ Arena), Dublin Airport Termi-

nal 2 and the Convention Centre Dublin.

KNX Ireland has recently reconvened and put in place a new committee with a strong framework adopted to drive KNX as the leading integration technology in Ireland. The following board members have been elected:

Niall Walsh (President),

Adrian Walsh (Secretary), Paul Mongan (Treasurer), Tom Weafer and Darren Territt (Committee Members).

The new committee is currently working on the launch of a new website and Consultants Guide with some planned events, including a presentation to the south east division of Engineers Ireland.



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KNX Ireland board members (Archive Picture)

KNX Day in the conference centre in Florence

On November 14th, the KNX Italy Day was held at Stazione Leopolda in Florence, an old train station now used as an impressive convention center. Thanks the central location of

Florence, the event attracted a large and qualified group of participants, 150 persons physically present and another 150 connected online. Highlight of the event was the panel

discussion “Will the big companies of Wall Street change the rules of the game?”. Topics were the possible role of the IT and multinational electronic companies entering the sector



of traditional home automation and the potential impacts of this market entry. The day was rounded off with presentations on KNX business cases and the announcement of the most important KNX Italy project of 2015: the constitution of the KNX Professional Italia. During the KNX Day the best five Italian KNX projects were awarded in the categories energy efficiency, public administration, social, hotels and last but not least the Best Overall National KNX Project.



Open area at the Stazione Leopolda in Florence

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1st KNX Forum in Osaka

After two successful KNX Forums in Japan, it was time for KNX Japan to spread its wings and head for the next business hub in Japan: Osaka. The first KNX Forum outside of the area of Tokyo attracted a big crowd, eager to learn about the worldwide STANDARD of home and building control. Presenta-

tions were given by representatives of KNX Japan, but also by major local and international manufacturers as well as training centres. Thanks to the high interest for demand response and smart city solutions in Japan, the KNX city presentation was the highlight of the forum. The increased interest in KNX

city solutions has encouraged two KNX Scientific Partners in Japan to currently put KNX city into practise in their labs. Since KNX is now better known also in other parts of Japan, more activities can be expected, offering a platform for everyone active in Japan.



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Takayuki Shintani talking about KNX and demand response

KNX Korea at the Smart Home & Building Show

For the 3rd consecutive year, KNX Korea successfully participated to the "Smart Home & Building Show", the leading show in Korea for home and building control. As in the previous years, KNX Korea was again given a dedicated area in the centre of the fair, where the "KNX Expo" was held. The KNX Expo, which showcased

the latest KNX solutions offered by Korean and international KNX Members and Partners, was again the highlight of the fair, attracting representatives from many different fields and industries.

Concurrently with the KNX Expo, KNX Korea organised the "KNX Technical Workshop", at which local and in-

ternational manufacturers and partners gave 90 participants a thorough insight into the technical aspects of KNX.

As in the previous years, 2014 was a year with many impressive developments for KNX in Korea. For 2015 more activities and news can be expected from Korea.



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KNX Technical Workshop



High interest in KNX at the KNX Expo

Smart optimisation of KNX project planning

Subsequent to its annual general assembly, KNX Luxembourg invited to a public lecture event. Ulrike Schwerin (Dipl.-Math., Germany) from IT GmbH presented the general usage of ETS Apps, as well as the ETS Apps provided by IT GmbH, for optimised project design. She demonstrated the possibilities of the ETS Reconstruction App in detail to the interested audience. Other ETS Apps and macros, as well as visualisation tools were also part of her comprehensive presentation. After Ms. Schwerin's presentation, the users had the opportunity to make use of her deep knowledge for individual problems they were facing. The end of the event constituted a tombola as well as further interesting KNX news and information about the services of KNX Luxembourg. During the concluding networking session the participants used the opportunity to exchange their newest experiences and cultivate contacts.



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Gilbert Kohn, Winner of the Tombola

KNX Mexico founded

As a next step in the internationalisation of KNX and seen the recent focus on Latin America, the KNX National Group Mexico was founded on the 16th October 2014. This KNX National group constitutes the 6th official representation of KNX in Latin America and is the first one in North America. Prior to the foundation of the group, KNX ar-

ranged meetings with the most active players in the country at the KNX booth, set up at the exhibition Expo Cihac. Together with the future members of the national association, all details and plans were worked out. Hence, the foundation event of KNX Mexico was the final stage in a busy week, with in total 26 companies joining, ranging from KNX Members to

local system integrator companies. The following association representatives were elected: Diego González from company Jung (President); Ramón Ramírez from company ABB (Vice-President) and Maribel Pacheco from KNX TC CMP (Secretary). Already first activities have been fixed and everyone is eagerly looking forward to the next KNX event in Mexico!



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Foundation of KNX National Group Mexico



KNX booth at Expo Cihac 2015 in Mexico D.F.

KNX Netherlands focuses on consultants and healthcare

An increasing number of installers in the Netherlands is familiar with KNX. However, this applies to a lesser extent to consultants, building managers and building owners. Therefore KNX Netherlands has put a focus on a transfer of knowledge to the target groups of consultants as well as to the healthcare sector. Through these consultants, KNX will be able to draw at-

tention of building owners and managers to its technology. With the help of a special brochure, as well as presence at special theme meetings for consultants, it is hoped to grow the awareness for KNX amongst this target group. Furthermore, home automation in the Dutch healthcare sector is becoming increasingly important. With an ageing population increasing, people stay

in their homes longer. The implementation of future-proof home automation helps caregivers keep more people autonomous longer and at lower costs. Therefore, KNX Netherlands compiled a special brochure for the healthcare sector and promoted it at an exhibition in November 2014.



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KNX Netherlands at the fair "Domotica & Slim Wonen"

First KNX Tutor course in New Zealand

From 20–22 of August, KNX International set up tents in the main city of New Zealand, Auckland, for a first ever KNX tutor crash course. The course was kindly hosted by ETCO, the major New Zealand train-

ing institution for apprentices, an organisation that was set up by the local association of electrical contractors, ECANZ. Candidate tutors from ETCO and local integrating companies/wholesalers – all with

the aim to set up an own local KNX certified training center – attended the condensed course, during which Joost Demarest, CTO of KNX Association, highlighted the major points of the KNX standard-



Thumbs up for KNX in New Zealand by the six new New Zealand Tutors



ized tutor documentation on such topic as KNX Protocol, KNX Interworking, KNX Microcontrollers and Application Programs. The last day was traditionally reserved for the concluding theory and practical test, which all participants passed with flying colors! A new stepping stone has been laid for the further expansion of KNX down under!

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ETS5 launch in Norway

On November 12th, 2014, KNX Norway organised a launch event for the new ETS5 at the Gardermoen Airport hotel. About 40 KNX experts from all over Norway joined the meeting. The presenta-

tion was held by the secretary of the KNX National Group Trond Høyem. The audience was very eager to learn more about the new ETS5 and many qualified questions were raised and answered. The meet-

ing also created a wish list for submission to the KNX Association. After the presentation and a nice lunch at the hotel, the participants had the chance to test the software during a workshop. Concurrently to



the workshop, a mini-exhibition was held, at which KNX members could present their latest KNX news to the audience. At the end of the event, Kim Backlund was drawn randomly from all the participants, becoming the lucky winner of an ETS5 Professional license.



An expert Audience with questions on the new ETS5

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KNX Poland at Dom Inteligentny 2014

Dom Inteligentny 2014 (Smart Home 2014) is a three-day event (with both seminars as well as fair expositions), which took place this time at the very professional and modern Conference Center inside the National Stadium in Warsaw from the 3th to 5th of October. It was the third edition of this event and as before it targetted investors, designers, architects and installers. The purpose of the fair is to promote different new technologies related to Smart Homes. The KNX National Group Poland was present dur-



ing this event with two hours of presentations on KNX city every day. At their booth KNX Poland presented key solutions

and applications with KNX, with a focus on energy efficiency. The visitors showed much interest, both at the booth and



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at the conferences. Following this success, a participation at the next edition is already under preparation.



KNX Poland at Dom Inteligentny 2014



KNX city Event in Lisbon

KNX Portugal called out for the first KNX city event on October 30th in Lisbon, held at Lisbon airport. Participants from all fields of electrical engineering joined this event to learn about the newest KNX developments in the market

and also the impact of KNX in Portugal. Highlight of the event was the KNX city presentation, which made clear that buildings, together with other current trends (like renewable energies, smart grid and electrical vehicles), can create a better

and more sustainable future. The KNX city presentation was accompanied by a long Q&A session, proving again the need for the KNX city on a global scale.



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KNX city presentation in Portugal (Picture: Carlos Santos, "O Electricista"-Magazine)

KNX Romania at 10th edition of IEAS

For its first public appearance, KNX Romania participated at the 10th edition of the International Electrical & Automation Show – IEAS 2014. Romania's most important show for electrics and automation took place at the Parliament Palace and attracted many professionals, such as designers, consultants, and system integrators.

Thanks to the support of eight members of KNX Romania, the appearance at the fair was not only well organised but also concluded with huge success. This success encourages KNX Romania to already plan



Members of KNX Romania at the booth



more events in Romania, such as technical trainings, workshops and cooperation with local institutions, including the participation at the next edition of IEAS.

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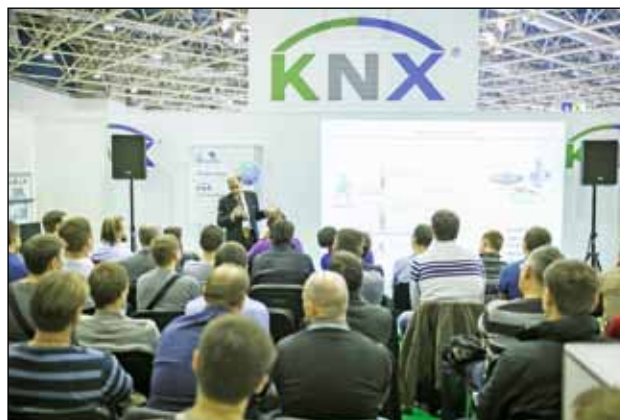
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KNX city at Hi-Tech building and Interlight Moscow

Once again, KNX International in collaboration with KNX Russia presented their joint booths at both Hi-Tech building and Interlight Moscow in November 2014. Hi-Tech building was held in Moscow on October 29–31, 2014. The event was visited by more than 11,000 professionals. KNX Russia participated with a joint booth, where the latest KNX products and solutions were shown. Additionally, an international KNX Forum took place, where KNX Russia had the opportunity to present, among other topics, the new ETS5. Just a week after that, KNX Russia was active again at the tradeshow Interlight Moscow 2014. The KNX city booth united the leading companies, working on KNX, presenting complex systems of building automation and smart house solutions, based on the worldwide STANDARD KNX. Concurrently to its presence with the KNX stand, KNX also presented the new ETS5 software at AGORA conference area at Interlight Moscow.



KNX Forum at Hi-Tech building 2014



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KNX booth at Interlight Moscow 2014

KNX Road Show South Africa

There is no continent, on which KNX is not present. This also includes Africa, where the KNX National Group South Africa organised its first KNX Road Show, bringing KNX to Johannesburg, Durban and Cape

Town. As had been done during previous KNX Road Shows, at each stop two events were organized, a general KNX Forum and a KNX Training Workshop. Both events at every stop were very well visited and

consisted next to general information about KNX also of a thorough introduction into the technical aspects of the worldwide STANDARD for home and building control. With the presence of an accredited KNX



Matthew Carter showcasing the advantages of KNX



Testlab, several KNX Training Centres and major KNX Members and Partners in the country, South Africa constitutes a market with growing potential in a growing economy. The success of the Road Show proved once more that KNX is a technology, not only addressing present but also future needs.

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KNX Competition-Exhibition-Seminar in Singapore

The KNX Competition-Exhibition-Seminar was organised by ITE College East, a certified KNX Training Centre and active member of KNX South East Asia. All members of KNX South East Asia supported this event, which turned out to be a major success. The competition required each finalist to complete the KNX Cabling Connection and KNX Programming using ETS4 at the Atrium of ITE College East. For the qualifying

round, Giat Mara (Malaysia), Republic Polytechnic, ITE College West and ITE College East were responsible for the training and selection of their two best candidates to represent their Educational/Technical Institutions in the finals. Visiting students who were unfamiliar with KNX were very happy to have learnt a new technology in KNX. As this event was a success for the KNX National Group South East Asia it is planned to invite

more Educational/Technical Institutions to participate in future events. A word of appreciation is delivered to Lee Chee Meng and the whole team of ITE College East, who organised the whole successful competition! The winners of the competition were Nur Shahilah Bte Abdul Samad (Singapore), Suryanti Bte Mohamed Shafiee (Singapore), Mohd Shahrul Nizam Bin Latif (Malaysia) and Giat Mara (Malaysia).



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The winners of the KNX competition in Singapore

KNX Spain at MATELEC 2014

KNX Spain participated at MATELEC 2014 – the most important trade fair in Spain for Systems Technology Solutions and Services for Monitoring and Efficient Management of Electrical Energy. The joint booth of KNX Spain had a size of more than 700 m². Thirteen companies and institu-

tions displayed products, innovative solutions and services related to KNX.

Additionally to the appearance at the tradeshow, KNX Spain also organised the Awards Ceremony for Best Facility Energy Efficiency. This event was organised in cooperation with the National Federation

of Electrical Installations and Telecommunications of Spain (FENIE) and with the support of MATELEC.

The award ceremony took place on Wednesday, October 29th, at “Zona KNX” of MATELEC. KNX congratulates all participants and especially the winners of the Awards.



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Award ceremony (top left picture), KNX Spain AG (top right picture) and images of the KNX Area at MATELEC

KNX Day in Sweden

Also in 2014, KNX Sweden organised its annual KNX Day on the 13th of November. The event's venue was the Scandic Crown Hotel in Gothenburg. The day itself consisted of seminars, a small fair, the KNX Award ceremony and a nice evening dinner. The audience listened very carefully to Heinz Lux, CEO of KNX Association, when he presented the impressive KNX facts and figures and his clear vision on the future of KNX. Another important part of the day was the KNX Consultant Handbook presentation. KNX Sweden has worked on the book's creation for almost a year and the launch was announced for 2015. The contents consists of guidelines, describing texts, templates



Presentation of ETS5 during the KNX Day

and a project example including several drawings. A great number of consultants already signed up for their own printed

copy. At the end of the day David Jonsson of the company Davids Elteknik and Dan Gustavsson of the company Eltech



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took home the KNX Award 2014 for their project “Garo Headquarter”.

KNX Road Show Turkey

The KNX Road Show held in Turkey was the prototype of a successful KNX Road Show: Fully booked venues in Ankara, Izmir and Istanbul, exciting Q&A sessions, KNX Training Workshops, and last but not

least a high motivation for further events to be organised by the KNX National Group Turkey. One feature that made the KNX Road Show Turkey unique was the interactive composition of the agenda,

making the audience an active part of the events. Thanks to the presentations, as delivered by major KNX Members, Partners and Training Centres, KNX is not only recognised as the worldwide STANDARD for



Final KNX Forum event in Istanbul



home and building control, but also as the technology for the Turkish market. Subsequent to the KNX Road Show, the KNX National Group Turkey and local association for Electrical Engineers, ETMD, agreed on a cooperation, which will result in further KNX events in Turkey.

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London seminar launches ETS5 and KNX UK Professionals

On Thursday 20 November 2014, The Crystal in London's Docklands was the venue for the introduction of the new ETS5 KNX programming software tool. The seminar was hosted by KNX UK President

Iain Gordon with support from Andre Hänel of the KNX Association.

The event also saw the launch of the KNX UK Professionals, a new Users' Group with the overall aim of helping to ensure

the continued take up of KNX intelligent building technology in the UK. Iain Gordon explained to delegates the attractive benefits of membership whilst Rob van Mil outlined the success of the Users' Group in the Neth-



Introduction of the new software ETS5 in London



erlands. The event was attended by KNX Partners and other UK building services professionals who took the opportunity for networking and general discussion about the positive future for KNX technology. "It was a great culmination to a very successful 2014 for KNX UK," said Iain Gordon.

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TRAINING KNX

New Training Centres

FRANCE Centre AFPA de Metz



AFPA is the most prominent French organization for vocational training. With more than 200 centres in France, AFPA deploys a wide range of training for more than 300 professions. The centre in Metz is specialized in HVAC engineering and building, including automation and electricity professions. It also provides specific training related to sustainable development. KNX is a key element of its training course "Technician in electricity and construction indus-

try automation". This course is part of a vocational qualification or a block release training. The training is however also open to professionals from the sector wanting to improve their skills. Becoming a certified KNX centre is AFPA's answer to the professionals and the companies' needs and a new asset for its trainees.

Contact: www.afpa.fr

TURKEY BOSMER



Bosmer is one of the leading companies in Turkey specializing in the KNX standard since 2009. It has handled all kinds of projects in public and private buildings since the day it was established. In order to share the experience it gained over the years with the new generation interested in and wanting to learn about KNX, it has decided to set up the one and only KNX training center in the Aegean region of Turkey. KNX is developing very rapidly in

Turkey, hence Bosmer aims to train new KNX professionals to fulfill the increasing need for qualified staff, while also promoting KNX to those still unaware of it. Bosmer Certified Training Centre will give the participants an experience with real KNX devices and give them ability to design and create new KNX installations.

Contact: www.bosmer.com

USA DMC Technology



After more than six years of training hundreds of KNX certified installers (mostly in France), two KNX tutors leave their country to create the first KNX Training Centre on the US West Coast. In the next three months, new instructors will join the team to offer KNX quality training all over the US. Based in Los Angeles, DMC Technology has built a strong relationship with

many of the key manufacturers starting off with KNX in the US. In order to help the US embrace the KNX technology, DMC Technology will offer a large range of services to installers and manufacturers wishing to enter this potentially largest market for KNX."

Contact: <http://training-knx.com>

ITALY Essegi Domo Smart Home



Essegi Domo Smart Home is the first ever KNX technology training centre in southern Italy. It is involved as a center in the training and support of young students and professionals working in the field of home and building automation. Inside the KNX Training Centre a Smart Home exhibit has been set up that mimics a construction with

building technology capable of ensuring a high level of energy efficiency by being integrated with KNX, in this way giving the opportunity to all students to get acquainted with the installation requirements of an automated system of a building in practice.

Contact: www.essegidomo.it

GERMANY
**Berufsbildungs- und
 Technologiezentrum
 der HWK Cottbus**



**Handwerkskammer
 Cottbus**

In the training centre of the HWK Cottbus, EIB/KNX has been part of the curriculum since 1996. Starting with the ETS2 to the present ETS5, the basics of KNX programming are taught with touch sensors, sound, dimmer and shutter actuators. They gathered a lot of experience with the integration of Siemens LOGO! in KNX. By using

an ABB gateway it is possible for participants to access the programmed functions with e.g. cell phones or tablets.

Contact: www.hwk-cottbus.de

GERMANY
**Handwerkskammer für
 München und Oberbayern
 Bildungszentrum
 Rosenheim**



**Handwerkskammer
 für München und Oberbayern
 Bildungszentrum Rosenheim**

The course based on the KNX product training from the manufacturer Kompakt teaches all you need to know about KNX in just five days. You will become familiar with the KNX-technique and learn the planning and design of KNX installations with ETS (Engineering Tool Software). Since this software runs on Windows, you need to have basic Windows knowledge when following the course before you can install the KNX devices and put them into

commission. If something in the installation is not functioning, you will be taught how you can find and fix the errors in the KNX system. Professional planning, design, commissioning and troubleshooting require in-depth knowledge. They make sure that the same standardized KNX knowledge is transferred to you.

Contact: www.hwk-muenchen.de/rosenheim

TUNISIA
Immotek



IMMOTEK
HTTP://WWW.DESIGNTECHNOLOGIE.COM

IMMOTEK (Design Technologies Group) is proud to announce the opening of the first KNX Training centre in North Africa (Tunis – Tunisia). Its primary goal is to provide KNX training to electrical companies and electrical technical consultant offices in the region, with competitive offers and up-to-date facilities. IMMOTEK will also provide short "Introduction to KNX Design" training courses, more specifically on topology, functionalities and integration of

KNX, in order to meet architects' and interior designers' demands for a better understanding of design and control of electrical devices in home and buildings. Finally, IMMOTEK will supply more advanced specific trainings on "home and building automation interfaces", "energy efficiency" and "multimedia control".

Contact: www.immotek.eu

IRELAND
JPL Engineering Ltd.



JPL Engineering Ltd.
Automation Consultants & System Integrators

JPL Engineering Ltd. can deliver basic and advanced KNX training for students with an electrical qualification in its custom made KNX training centre in its head office and can cater for up to 14 students at any given time. The course is designed to offer small groups of delegates individual, specialised, intensive training in the KNX building automation system. This course provides training in the design, installation and commissioning of a KNX system

incorporating both theoretical and practical elements. Participants that successfully complete the course will understand the operation of the KNX system; gain confidence to use the programming software; obtain a European certificate; gain access to products and support and use of the KNX partner logo.

Contact: www.jplengineering.ie

UAE
**KNX TRAINING
 CENTRE – DUBAI**



AM
Al Mazroui - ICAS (LLC)

KNX is a worldwide standard for home and building control automation and the courses offered will allow participants to develop skills to work on KNX equipment (lighting control, blind control, heating control, security technology, visualization systems,...) to a basic or even advanced level. The courses provide the knowledge and skills that enable participants to become advanced level accredited KNX building

automation technicians. The full KNX accreditation requires successful completion of the advanced training course in addition to the basic training course. The courses are ideal for electrical contractors, electricians, building automation engineers and system integrators.

Contact: www.almazrouicas.com

FRANCE
Legrand – Innoval



Through its Innoval training centres, Legrand provides tangible training courses on all its commercial sector solutions, thus enabling its partners to meet the requirements and evolving standards of a changing market. In these training facilities, 5500 people (clients, French and international partners) are trained every year to hone their expertise and reinforce their knowledge in all skill areas: automation solutions, energy efficiency, VDI, KNX, cabling infra-

structure,... In 2015 Innoval will become a KNX certified training centre offering two specific courses dedicated to this international standard: "Get the KNX Partner certification" and "Lighting Management: control the Legrand KNX devices". More information about the courses on legrand.fr, "Formation & Enseignement" section.

Contact: www.legrand.fr

GERMANY
Marineteknikschule



The Navy School of Technology was founded in 1996 in Parow near Stralsund and unites all courses in the technical areas of the Navy in one school, from marine electrical engineering to weapons technology. The training takes place on different levels, for example, from training skilled electronics technicians or electronics technicians in automation technology, industrial

masters and technical craftsmen. The Navy School of Technology has decided to organize KNX basic and advanced courses to allow their students to easily enter the KNX automation world. In the future they will also host KNX Tutor courses.

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UK
MyKNXStore Northern Trading Academy



MyKNXStore training academy is dedicated to the world of KNX training, their aim is to become a centre of excellence, committed to the growth of KNX training and engineers. As one of the newest centres in the UK, MyKNXStore are based in the

North East of England and completely accessible by road, plane and train, and with suitable hotel accommodation just on its doorstep.

Contact: www.myknxstore.co.uk

SOUTH KOREA
Somfy Korea



Somfy Korea is a major blind motorization company in Korea. The company is confident that KNX is a key element to operate blinds in BEMS. However, in the country KNX is mainly used for lighting solutions, factory automation or luxury homes. Also, not many people are able to handle the system in Korea. Somfy is a blind motor company; therefore, the first is to train its customers and electricians to introduce and

apply KNX in home and building. Somfy also aims to introduce the solution to architects in order to apply KNX in building design. Somfy can also provide consultancy on lighting and blind systems in buildings to ensure energy saving with the help of the KNX system.

Contact: www.somfy.co.kr

BELGIUM
Syntra West



SBM provides training and support for small and large businesses and organizations. SBM is part of the Syntra West group and is the leading expert for practice-oriented no-nonsense courses, covering a wide range of fields and degrees of expertise. SBM trains, coaches and advises. SBM offers a large variety of courses, offered at several teaching locations. SBM is possibly even better known for its tailor-made solutions and in-house training courses. SBM is in close contact with the client, result-driv-

en and flexible. Currently SBM is organizing KNX Basic courses with interactive lessons and unique training material. These courses take place in the evening and is already based on ETS5. This course can be taken at the client's own speed and preference. Coaching is permanently available during the practical lessons. This fall, SBM will also offer KNX Advanced courses.

Contact: www.syntrawest.be

KNX Scientific Conference

KNX Scientific Event 2014

at University of Applied Sciences RheinMain Wiesbaden / Germany

As every two years, the month of October 2014 again saw the bi-annual heyday of the KNX Scientific partners with the organization of the KNX Scientific Conference.

Contrary to the 2012 edition (which had been organized in Gran Canaria/Spain), this time KNX had opted for a more reachable destination in the city of Wiesbaden, close to Frankfurt in Germany, more specifically at the University of Applied Sciences RheinMain, who kindly hosted the event.

The audience of more than 60 participants was again a nice mix from different backgrounds: also the contributions reflected this background, some of them made by the industry and some by the scientific partners.

As had been done for the first time at the KNX scientific conference in Gran Canaria, this year the audience was again invited to cast their votes on the contributions, with the goal of handing over the KNX Scientific Award to the best presentation, by not only judging the novelty of the topic, the overall quality of the presentation,



Mr. Gossé answering questions from the audience following his presentation on the use of KNX RF for street lighting applications.

but also the added value of the topic for KNX.

Following the vote from the public, the presentation of Dr. Pees of Gira on using WIFI for KNX communication came third, the one of Mr. Le Men of ABB Newron Systems demonstrating the powerful ETS App "Moovin' Group" came second and that of Mr. Praus of

TU Vienna on KNX and Security came first, making him the new lucky owner of € 3000 of prize money.

A copy of all presentations shown at the conference can be downloaded from the following page (<http://www.knx.org/knx-en/community/scientific-partners/scientific-conferences/index.php>).

The conference again showed that a challenging future lies ahead of KNX and that the scientific conference is appreciated by the audience as a high value conference for the exchange of views on ongoing technical evolutions, directly or indirectly influencing the future of KNX.



New Scientific Partners



GREECE

Eastern Macedonia and Thrace Institute of Technology



The purpose of the electronics' Laboratory is to convey to the graduates the necessary scientific and technological knowledge, abilities and skills to operate in the following areas:

- the development of feasibility and implementation studies for electrical, electronic and automation systems and production;
- the technical support for electrical equipment, electrical and electronic installations, plant automation and information systems;
- the implementation of standards and regulations for electrical installations, systems and products;

- the management and implementation of environmental and legal obligations and regulations for the safety of electrical installations and work in production units;
- the ability to apply quality control and quality assurance;
- applied research innovation and development related to technology, production, integration and implementation in these areas;
- the acquisition of knowledge conducive to postgraduate studies in the Department of Electrical Engineering.

Contact: www.teikav.edu.gr

GERMANY

Friedrich-Schiller-Universität Jena



seit 1558

For many years, the Chair of Software Engineering at the Department of Computer Science at Friedrich Schiller University Jena has specialized in requirements analysis and the design and development of distributed information systems. The concept of structured IT-governance provides in this context for an integrative framework. An improved toolbox for mobile agents is offered as a technological middleware. Theoretical solutions are always transferred into practice by utilizing concrete

projects, which are realized mostly in close collaboration with business partners. From their point of view, smart home infrastructures, like KNX, are just a specific version of embedded and fully distributed systems, which need further research, standardization, and tools. They plan to support the advancement of these systems by directing their research and teaching towards this domain.

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SPAIN

Universidad Politécnica de Madrid



The Department of Electronics, Automation and Industrial Informatics of the Universidad Politecnica de Madrid, Spain, has a building automation lab, which is used for conducting automation related practical labs, but also for performing R&D related to the application of automation in build-

ings and the interaction between robots and smart buildings. The lab is equipped with several technologies, amongst which KNX is the key protocol.

Contact: www.upm.es

JAPAN
University of Tokyo



Since the Green University of Tokyo Project (GUTP) was founded in 2008 as an academic-industrial alliance project, GUTP has been actively working on research and development on the topic of an interoperable facility management system with ICT (Information and Communication Technology). To realize an interoperable facility management, GUTP have been promoting IEEE1888 (Ubiquitous Green Community Control Network) with Chinese industries and research institutes since 2009,

and jointly standardized IEEE1888 as an international standard in 2011. IEEE1888 is one of the protocols that enables handling multiple facility management protocols and is also a data-centric architecture that can be applied to a sensor network in general. GUTP and its members have now been deploying IEEE1888 based systems as a commercial service.

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JAPAN
Waseda University



The Waseda University holds the “EMS Shinjuku R&D center” for the research of communication technology related to the Demand-Response program. It currently has four Smart Houses with HEMS, smart meter, PV, PHV/EV, battery etc., eight Demand Response Automated Servers (DRAS), and a distribution network simulator in this facility. The communication protocol used for HEMS in Japan is the Smart Energy Profile 2.0, also one of the standard protocols selected for smart grid interoperability by NIST. Open ADR 2.0b is used for the communication between DRASs, for example, between the utility DRAS and the aggregator DRAS. The Waseda University is interested in KNX as one of the major European Standards for the EMS devices, and would like to use, understand and compare it to the other protocols in EMS Shinjuku R&D center.

erability by NIST. Open ADR 2.0b is used for the communication between DRASs, for example, between the utility DRAS and the aggregator DRAS. The Waseda University is interested in KNX as one of the major European Standards for the EMS devices, and would like to use, understand and compare it to the other protocols in EMS Shinjuku R&D center.

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BECOME A KNX SCIENTIFIC PARTNER

JOIN KNX ASSOCIATION AS A KNX SCIENTIFIC PARTNER

- ✓ Be listed on the KNX website as a KNX Scientific Partner
 - ✓ Receive access to the KNX Specifications
- ✓ Equip your lab with free ETS and other software licenses
 - ✓ Get free samples of system components
- ✓ Be granted access to the KNX FTP server
 - ✓ And much more

visit: www.knx.org → Community → Scientific Partners



KNX Userclub / KNX Professionals



ETS5 draws in the crowds

KNX Professionals Deutschland e.V. was represented at GET Nord, the specialist trade fair for electrical engineering, sanitation and air conditioning in Hamburg, sharing a stand with the Hamburg Electrical Engineering Training Centre (BEZ). At the stand, visitors could obtain some

initial insights into the recently-launched ETS5 software. KNX Professionals members Dirk Beyer (Ingenieurbüro Beyer), Peter Zahn (Projekt-Z), Dieter Koch (KE-Elektro) and Dr. Sven Bär were on hand to tell them about it.

A prize draw was held on each day of the fair giving visi-

tors the chance to win a full ETS5 licence worth more than €1,000, which proved an irresistible attraction. The winners were: Henning Wesche from Hamburg, Daniel Rohwer from Rendsburg and Thomas Knotenberg from Bad Oldesloe. Congratulations from KNX Professionals Deutschland e.V.!



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Website:

www.knx-professionals.de



KNX Professionals Deutschland e.V. on "Get Nord" 2014 in Hamburg



Dirk Beyer from KNX Professionals Deutschland e.V. congratulates one of the winners

Special brainstorming session with KNX Professionals

How do we keep KNX Professionals involved in the world of KNX and what are the information needs of the people who work with KNX? These were the key questions last December during the brainstorming session organized by KNX involving 12 KNX Professionals. The brainstorming session generated a lot of input – about the issues and questions affecting these people, and the issues about which they would like to be kept informed. The results of the brainstorming session provide many points of departure for the network meetings KNX organizes three times a year. So we are increasingly looking for locations where KNX has been implemented at an operational level, so that KNX Professionals can learn from real-life case studies. The next meeting will



KNX professionals at the brainstorming session

take place in the prestigious Hotel Huis ter Duin in Noordwijk, which is full of KNX systems. The KNX Professionals also expressed their need for communication through the

dedicated website. In early 2015 the online KNX platform in the Netherlands will be completely renewed and restyled. This will allow us to keep KNX Professionals informed even more ef-



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www.knx-professionals.nl

fectively. At the same time, part of the website will be dedicated to 'the general public', such as consultants, property developers and consumers who seek information about KNX.

KNX at International Conferences / Fairs

Vietnam

Electrical Engineering based on KNX

ASEAN Skills Competition in Vietnam

On Sunday, 26th of October, at the Asean Skills competition, the discipline of electrical engineering was concluded with the programming of a KNX based project. 17 competitors from nine countries in South East Asia competed in two rounds,

showing their skills with ETS. For some countries, such as Laos and Cambodia, it was the first time ever the competitors used KNX, but this did not prevent them from solving this discipline, thanks to the intuitiveness of ETS.

The announcement of the winners took place at the closing ceremony, where all winners were celebrated. KNX Association would like to congratulate Nguyen Cong Tuan from Vietnam on winning the gold medal, Soukaserm Xayphonesy

from Laos and Mhuammad Hafiz Bin Rohani from Malaysia on taking home the silver medal. Big congratulations goes also to all competitors, which endured three days of competition and did a great job.

Contact: info@knx.org



The whole team holding the prizes offered by KNX Association

UAE

ETS5 software presented in Dubai

Best ever conference of the KNX National Group since its foundation

KNX has celebrated its annual KNX National Group Conference in Dubai (United Emirates Arab). More than 50 delegates from 30 different countries from all continents of the world joined this special event, coinciding with the ETS5

launch day. A lot of new ideas were put forward by the different delegates of the established KNX National Groups. Besides that, delegates shared experience about the way they promote KNX in their different countries, helping new re-

gions to implement these good ideas in their countries as well. Everyone was very enthusiastic to hear what all KNX National Groups had achieved so far and what new ones are planning to do. This will certainly result in a greater worldwide success of

KNX. This was the best KNX National Group Conference ever and we are looking forward to making it even better next year in Athens!

Contact: info@knx.org



More than 50 delegates from 30 different countries from all continents together at the 2014 National Group Conference

France

Hager organizes first ever “Shake my KNX” contest

On 25th and 26th September 2014 Hager organized its first ever “Shake my KNX” contest. Inspired on the concept of “hackathons” – events where programmers meet to jointly work on a software program during several days – Hager invited seven teams of three experienced KNX integrators to take part in a 24 hour non-stop contest at the company Simplon in the outskirts of Paris. During the contest, the participants were challenged to a number of tests, including four programming exercises with ETS, one quiz on home and building automation and one test, where they had to present their future visions on the world of home and building control to a jury. The four programming exercises dealt with such real life topics as the installation of a fictive residential and commercial building, but also such playful topics as the control of a scale model of the Titanic. The contest was concluded with another quiz, where the participants of the winning team were again challenged on their knowledge of the home and building automation world: the lucky winner took home with him a ticket for a trip to Las Vegas, to attend the next Consumer Electronic Show.

Contact: info@knx.org



The winning team participating in the concluding quiz and the tired but happy group of contestants of the first ever “Shake my KNX” contest.



Belgium

KNX Association shares its success with those in need during the Christmas time

The launch of the new version of the Engineering Tool Software ETS5 in October 2014 was an unprecedented success for KNX. Instead of overloading the business partners with presents, for every license of ETS5 sold in the month of December, KNX decided at the end 2014 to make a donation of 10 € to UNICEF, the United Nations Children’s Fund, the organization providing long-



term humanitarian and developmental assistance to children and mothers in developing countries. KNX thanks everyone for helping to make 2014 such a success and it looks forward to continuing the close cooperation in 2015.

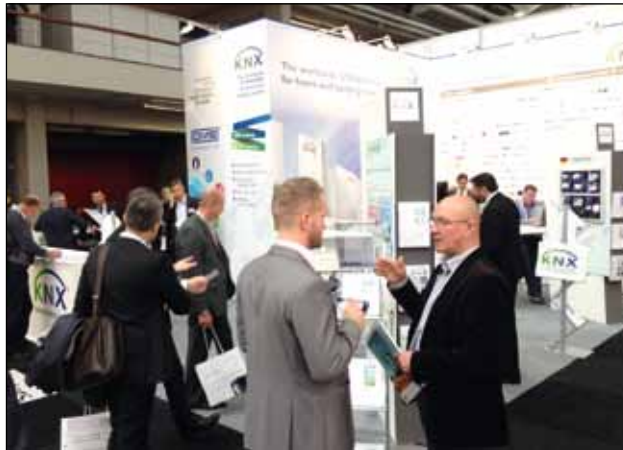
Video link:
www.youtube.com/knxassociation

The Netherlands

KNX at European Utility Week 2014

Interested in the new innovating trends and developments in the smart utility sector, KNX Association decided to participate with an own booth and presentations at one of the biggest and best known smart utility events, the European Utility Week 2014.

European Utility Week is well-known for its conference program, featuring over 300 speakers and covering all the major value streams. With this year's new interactive format, more utility representatives and more case-study presentations were presented than ever before. In particular, KNX Association presented KNX city: Sustainable cities and buildings. The four pillars of the famous KNX city-concept – Building, Mobility, Infrastructure and Energy Generation – were demonstrated to more than 60 experts of the smart utility sector. In addition to its contribution to the conference, KNX Association was present with a



stand together with the KNX Members Sinapsi (Italy) and Lingg&Janke (Germany): at the stand applications related to smart metering and energy generation control were put into practice.

Contact: info@knx.org

The KNX booth at European Utility Week

Germany

KNX organizes KNX Development Getting Started Workshop

In the month of October 2014, KNX International was able to welcome some 60 participants in the city of Wiesbaden/Germany to a KNX Development Getting Started Workshop

kindly hosted by the University of Applied Sciences RheinMain. At the workshop for existing and potential KNX members, all the most prominent KNX providers of KNX certified sys-

tem components and stack solutions informed the audience about the available KNX certified Physical Layer implementations, KNX stacks for different KNX device models on differ-

ent microprocessor platforms and KNX development environments.

Contact: info@knx.org



Jens Hempel of TÜV Rheinland informing the audience on the KNX product certification process.

Great Britain

Smart Building Conference series off to positive launch in London

KNX participated at the Smart Building Conference, organised by Integrated Systems Events – on the 8th of October 2014. The event welcomed more than 100 delegates to experience a full day of challenging exposition, debate, education and networking at the QEII Exhibition Centre in Westminster. The Smart Building Conference was the first in a trio of up-and-



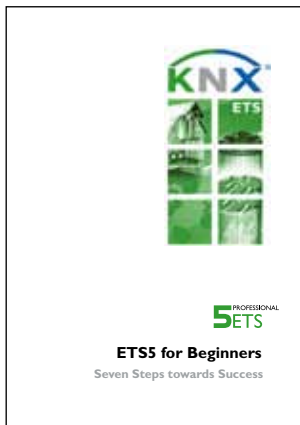
coming Smart Building events taking place across Europe in the coming weeks. KNX thanks Iain Gordon, President of KNX UK, for his participation in the panel discussion: The Future of Home and Building Control. Looking forward for the next conference!

Info: www.smartbuildingconference.com

Belgium

New KNX flyers: ETS5 for Beginners and Experts

Are you new to ETS or are you already an experienced user? Either way, a new flyer is available providing more information about ETS5. The flyer ETS5 for Beginners informs on how you can set up a KNX project with ETS5 in seven simple steps. ETS5 for experts informs more experienced users about the new functions and improved workflow of ETS5 compared to the previous version ETS4. Both flyers can be downloaded from the KNX website in the Downloads section.



Contact: info@knx.org
www.knx.org/knx-en/downloads

The covers of the ETS5 for Beginners and Experts flyer

Belgium

New KNX videos: KNX for Installers and National Group Conference 2014 in Dubai

KNX Association is now offering two new videos. The video 'KNX for Installers' shows installers in a simple and graphical way why KNX is the system they should choose for home and building control. The other new video shows a report of the first KNX National Group conference not held on the European continent, but in the city that best reflects KNX as the worldwide standard: Dubai. The conference was attended by more than 30 country representatives.



The video KNX for Installers informs why KNX is the system they should implement

Video link:
www.youtube.com/knxassociation

Belgium

New national KNX Journals available



The cover of the Spanish and Russian KNX Journal

In addition to the international KNX Journal, KNX Association now also offers two new national KNX Journals: the Spanish and Russian edition, which are now available for download at the KNX website. The na-

tional KNX Journals are written in the local language and include not only general information about KNX, but also articles specific to the country, e. g. about local KNX projects.

Contact: info@knx.org

Link: <http://www.knx.org/knx-en/knx-journal>

Belgium

New KNX Flyer: KNX security checklist

KNX now offers a new flyer called "KNX Security Checklist". This checklist provides you with a list of points to be verified in order to make installations more secure, with checkboxes to mark whether these points were considered in the project you are setting up. This new checklist is currently available in six languages and can be downloaded from the Downloads section of the KNX Website.



The cover of the KNX Security Checklist

Contact: info@knx.org

Link: www.knx.org/knx-en/downloads

KNX Conferences / Fair Schedule 2015



ISH 2015

10. – 14. 3. 2015
Frankfurt (Germany)
Trade fair for bathroom, building, energy, HVAC, renewable energies
www.ish.messefrankfurt.com



Hem & Villa Sweden

24. – 26. 4. (Jönköping),
10. – 13. 9. (Göteborg),
8. – 11. 10. 2015 (Stockholm)
The largest do-it-yourself trade fair
www.hemochvilla.se



Eltefa

18. – 20. 3. 2015
Stuttgart (Germany)
The most important regional trade fair in the electrical sector.
www.messe-stuttgart.de/en/eltefa



Energy Efficiency Africa

24. – 25. 3. 2015
Johannesburg (South Africa)
Africa's largest power and energy show
www.terrapinn.com/exhibition/energy-efficiency-africa/



myenergydays 2015

20. – 23. 3. 2015
Kirchberg (Luxembourg)
The energy trade fair of the building sector
www.myenergy.lu



Bcia Awards 2015

14. 5. 2015
Warwick (UK)
British Construction Industry Awards
www.bcia-awards.co.uk



Elfack 2015

5. – 8. 5. 2015
Göteborg (Sweden)
The biggest meeting place for the Nordic electrical sector
www.elfack.com



Guangzhou Electrical Building Technology 2015

9. – 12. 6. 2015
Guangzhou (China)
Event that aims at brand building and invites professional buyers
www.building.messefrankfurt.com.cn



Power Days Austria

11. – 13. 3. 2015
Salzburg (Austria)
Home and building automation fair
www.power-days.at



Predialtec 2015

28. – 30. 7. 2015
Sao Paulo (Brazil)
The biggest Brazilian trade fair with focus on audio/video and building automation
www.predialtec.com



WorldSkills 2015

11. – 16. 8. 2015
Sao Paulo (Brazil)
The world's largest international skills competition
www.worldskills.org



Integrate Australia

25. – 27. 8. 2015
Melbourne (Australia)
Australia's largest industry event for AV and Systems Integration.
www.integrate-expo.com



BEX Asia 2015

2. – 4. 9. 2015
Marina Bay Sands (Singapore)
Building exposition in South East Asia focused on green building
www.bex-asia.com



Ineltec 2015

8. – 11. 9. 2015
Basel (Switzerland)
Switzerland's leading electronics and building fair
www.ineltec.ch



Biel light+building

15. – 19. 9. 2015
Buenos Aires (Argentina)
Biennial international trade fair for electrical engineering, electronics and lighting
www.biel.com.ar



Shanghai Intelligent Building Technology

23. – 25. 9. 2015
Shanghai (China)
Event that aims at brand building and invites professional buyers
www.shanghai-intelligent-building-technology.hk.messefrankfurt.com



Elektrotechnik 2015

29. 9. – 2. 10. 2015
Utrecht (The Netherlands)
The most important trade fair for the installer industry
www.elektrotechnik-online.nl



Facilities Integrate 2015

15. – 16. 10. 2015
Auckland (New Zealand)
The NZ trade exhibition for the facilities management and system integration industries
www.facilitiesintegrate.nz



Global KNX city Day

20. 10. 2015
Worldwide
International KNX city event to celebrate 25 years of KNX
www.knx.org



Interclima+elec 2015

2. – 6. 11. 2015
Paris (France)
An opportunity to discover the most innovative solutions which combine energy efficiency and comfort
www.interclimaelec.com



Interlight Moscow 2015

10. – 13. 11. 2015
Moscow (Russia)
International trade fair for lighting, electrical engineering, home and building automation
www.interlight-moscow.ru.messefrankfurt.com/moscow



Beurs Domotica & Slim Wonen

18. – 19. 11. 2015
Eindhoven (The Netherlands)
Trade show mainly based on home and building electronic systems
www.smart-homes.nl

CONCRETA

Contretra 2015

19. – 22. 11. 2015
Porto (Portugal)
Professional construction fair held every two years
www.concreta.exponor.pt



KNX Congress Spain

Spain
Congress organized by KNX Spain
info@knx.es
www.knx.es

Imprint

KNX Journal international

The KNX Journal is the international magazine for home and building control based on KNX technology. Experts, practitioners and professionals show the way in applying and developing the KNX standard – from home and building control trends to devices and application projects; from the KNX members and partners to useful information on event stand and publications. Special attention is given to members and activities of the KNX Association international and their national groups.

Distribution

This bi-annual and bi-lingual Journal (English/German) can be ordered free of charge by all members, partners (installers, scientific, training centres, associated, national groups) and by media representatives of KNX Association international. Order the KNX Journal by Email from knx-journal@knx.org.

Online Distribution

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KNX Tools Online Shop:
<https://onlineshop.knx.org>



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<http://my.knx.org>

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- One Tool (ETS)
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 - Twisted Pair (TP)
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