



JOURNAL

Market Study
Smart Home

KNX Video Contest

KNX Award 2012

KNX IP Secure

ETS Apps
Development

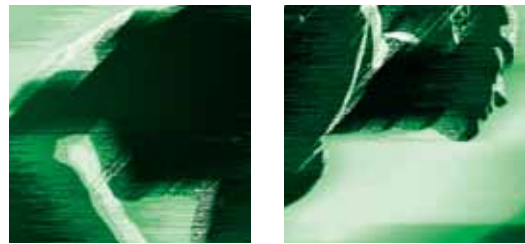
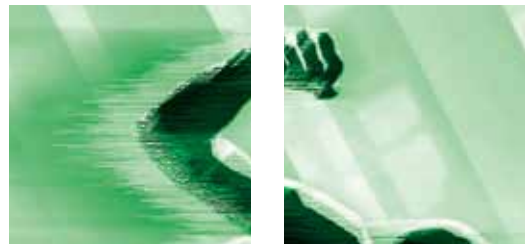


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2012

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Editorial



Heinz Lux,
Director KNX Association

Good luck!

Napoleon demanded “good fortune” from his officers. But he also knew that success is mostly due to hard work and strict discipline. This means you have a demanding task ahead. Terms such as “victory” or “luck” were previously used to denote what we now call “success”. The definition of the term has changed since the time of Napoleon. With the advent of industrialisation, success has acquired an unbiased and neutral significance. Nowadays success means having the competence to achieve your goals. In a scientific discussion, there are numerous attempts to operationalize success or a sense of achievement and to make them measurable. One example is the “flow concept” from the world of sport. It denotes full immersion and absorption in a task, a frenzy of activity or a sense of passion. It makes you happy when your capabilities grow in equal measure to the challenges. You should like what you do to do it well.

Yes we love it!

And so do you: 32,302 partners, 285 members, 221 training centres, 84 scientific partners, 29 national groups, 9 professional groups and user groups as well as 6 associated partners. This is recognised by our success in 117 countries and guarantees our level of quality.

Yes we can do it!

We are number one according to the international market research association (BSRIA) which acknowledges that we already have a market share of 70 % with the aim to increase this to 74 % during 2012.

We are always challenged by demanding goals. Einstein already knew that chopping wood is so popular because you immediately see the result during the task. Nothing is as effective as success and if you add a little bit of luck to that, it is the good fortune of the industrious. Success only comes to those who do something while waiting for success.

Yes we want it!

Editorial

- 2 European Market Study „Smart Home“
KNX is the most popular protocol in European markets sharing more than 70 % of the total market value
- 3 Generation KNX Video Contest is an All Round Winner!
- 4 KNX city at light+building 2012
Top event with more exhibition space and more visitors than ever before
- 5 9th Awards ceremony reflects the international character of KNX
Glittering KNX Award Ceremony 2012 attended by winners, nominees and more than 1,500 guests from 76 countries
- 6 Winners of KNX Awards 2012
9th Awards Ceremony reflects the international character of KNX

KNX Projects

- 8 Scenarios in a holiday paradise
- 9 An example for energy efficiency in Southern Europe
- 10 Excellent study atmosphere in desert campus
- 11 Highest level of efficiency for Singapore’s skyline
- 12 Pioneering building system technology on Australia’s famous Surf Coast
- 13 Intelligence of stellar architecture
- 14 Factory recycles waste heat from production
- 15 KNX competence for Finland
- 16 The president acquaints himself with energy efficiency using KNX
- 17 Together with KNX on an eco journey
- 18 Bus technology ripe for the island
- 19 Intelligent control makes airport more efficient
- 20 Diploma with a global standard
- 21 The Smart Home on the curriculum

KNX System

- 22 KNX IP Secure and KNX Secured Application Layer
The tools for the realization of KNX secured communication

KNX Tools

- 23 How to become an ETS App Developer
- 25 New ETS Apps

KNX Member

- 26 New Members
- 31 New Products

KNX Partner

- 44 National Groups
- 51 KNX Training Centres
- 56 KNX Scientific Partners
- 58 KNX Userclub / KNX Professionals

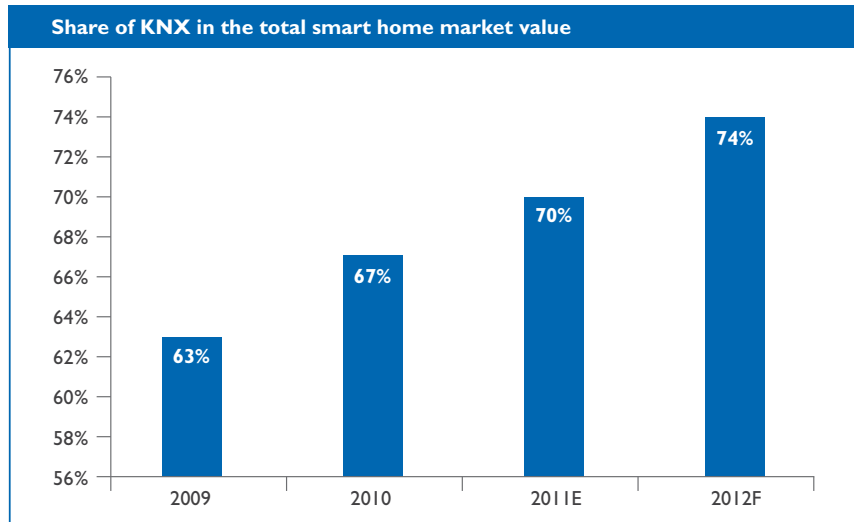
KNX Out & About

- 59 KNX on International Conferences and Fairs
- 64 Imprint

European Market Study „Smart Home“

KNX is the most popular protocol in European markets sharing more than 70% of the total market value.

BSRIA are pleased to present the results of their European Smart Home Market Study, which includes six in-depth reports on different European markets (Germany, France, UK, Netherlands, Belgium, Norway) and the summarising Pan-European Report. In BSRIA's smart home series – for the first time in the market – an encompassing overview of smart home technologies is given. This study is the one of the first to comprehensively analyse all the available knowledge on smart home technologies and generate reliable market data. BSRIA undertook the research by interviewing and exchanging information with the top players and stakeholders around Europe



With the growing importance, KNX is the leading protocol in the European Smart Home market.

Although the smart home market is closely associated with high-end niche solutions, it still has room for growth and is expanding at an impressive rate. According to BSRIA estimates, in 2011 the European smart home market value reached 600 million euros, which is 13% higher than in the previous year. Approximately 70 % of the market value is generated by products, the rest being added by system integration.

With a share of 48 % of the total European smart home market value, Germany is the largest manufacturer and consumer of smart home solutions. Correspondingly, German home automation manufacturers account for 70% of total smart home product, with ABB, Hager, Gira, and Siemens being pan-European market leaders. France and the UK, the next biggest markets, cannot boast the same scale, accounting for only 10% and 8% of the European market respectively.

The smart home market is highly concentrated in the high-end housing segment, as bespoke solutions for luxury properties account for two-thirds of

the market. The second most important niche (approx. 20% of the market value) is small and medium-sized businesses, which use residential smart home applications in commercial buildings, hotels, and restaurants. Affordable medium-range residential solutions are still not very common. However, major home automation manufacturers have started to pay more attention to promoting medium-range smart home systems. The success of medium-range standardised solutions is, however, highly dependent on the position of housing developers. Due to the commitment of major German manufacturers and the active position of the KNX Association, KNX has been established as the most popular protocol in most of European markets. It largely contributes to the growing technological integrity of the industry. According to BSRIA estimates, in 2011 the share of KNX-based solutions exceeded 70% of the total market value. In the last three years, the KNX share has been adding three percentage points on average, suggesting the growing importance of KNX across Europe. Even

in the UK, which is more of a bespoke market compared with continental Europe, the share of KNX is progressively increasing, having exceeded one-third of the market by the end of 2011.

Comfort and convenience will be the key demand side drivers, with high-income households and commercial clients remaining the major client segments, generating stable demand. In the medium term, however, we expect that the market will be moving towards simpler and less expensive mid-range solutions (basic light scenario – temperature controls – blinds). Assisted homes solutions are another interesting opportunity sector set to expand in the future.

Contact:

BSRIA Limited, UK, www.bsria.co.uk



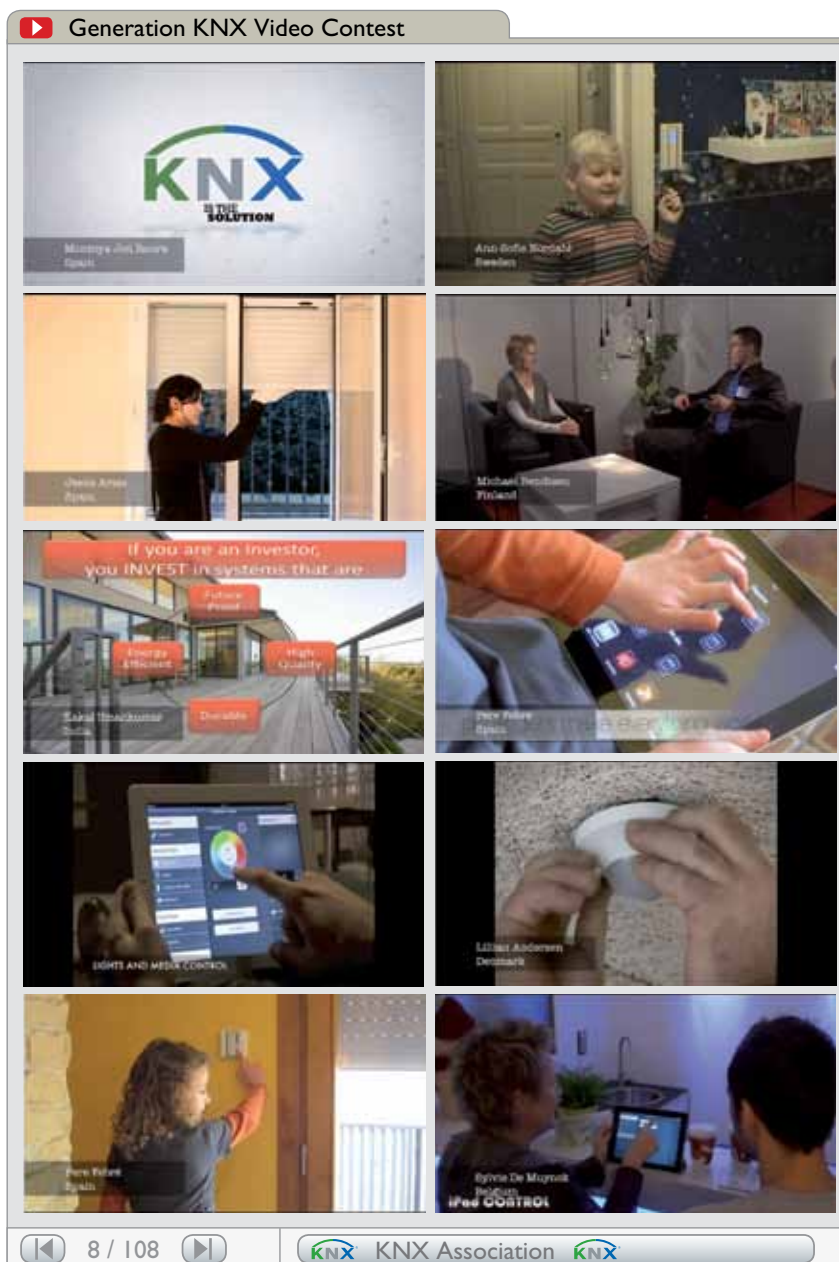
Generation KNX Video Contest – is an All Round Winner!

More than 100 videos from 25 countries were submitted for the Generation KNX Video Contest organised by the KNX Association International Brussels. More than 1500 people registered for the contest, which was set up as a unique and novel way to explain what KNX - the Worldwide Technology for Home and Building Control actually means to people. A summary of the contest can be found in the KNX-YouTube account: www.youtube.com/user/knxassociation

The outstanding success of the contest can be gauged by the fact that, in total, all the videos have been watched more than 110,000 times and have been shared on Facebook, Twitter and via email more than 20,000 times. They have also been viewed on YouTube more than 10,000 times.

The competition attracted entrants of all ages and from many different walks of life and professions. To give everyone a chance of winning, there were four entry categories:

1. **„Best Video“** (judged by a jury from KNX Association),
 - „Evolution = KNX“ by Ricardo Ricci from Italy
 - „Imagine“ by Heincke Christoph from Germany
 - „Tools For Living“ by Roura Montoya Jon from Spain
2. **„Sharing Winners“** for the entrants who shared their video entry, or the competition itself, the most on social networking sites,
 - Pavla Sehnalova from Czech Republic
 - Petr Svoboda from Czech Republic
 - Regis Basselot from France
3. **„Most Voted“** for entries that received the most votes,
 - „Happy Sweet Life with KNX“ by Sylvie De Muynck from Belgium
 - „HiDOM - Domotics for Assisted Living (episode 1)“ by Ricardo Comper from Italy
 - „KNX Kids“ by Febré Pere from Spain
4. **„Early Bird Winners“** a category for the first entrants to submit their videos.
 - „My KNX Image!“ by Herceg Karol from Slovak Republic



- „What does KNX mean for me?“ by Vesely Tomas from Czech Republic
- „KNX: Making Environments More Pleasant“ by Jean Pierre Joubert from South Africa

The prizes ranged from 5000 euros for the best video to iPads and iPods for the other categories.

KNX Association also awarded special prizes to a number of entrants who also submitted extremely entertaining or in-

formative videos. The Generation KNX Video Contest winners' videos and details are published at <http://contest.knx.org/en/winners> and a list of all videos can be found at: <http://contest.knx.org/en/videos>



KNX city at light+building 2012

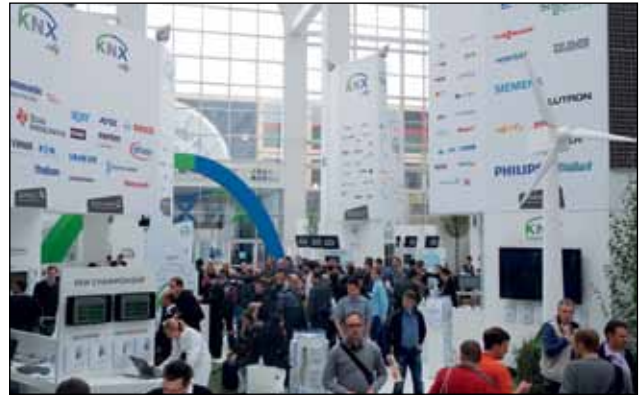
Exhibition space and Top Event bigger than ever before

In 2012 KNX pushed the limits and demonstrated excellence: KNX Association presented itself larger than ever before during light+building in Frankfurt between 15 and 20 April 2012. The latest technologies and applications for the worldwide standard in home and building automation were shown at four different stands. Also the KNX Top Event, with the presentation of the KNX Awards, reached a new quality, with a total of 1,500 participants.

KNX city at the Galleria was probably the most impressive KNX presentation at the Frankfurt trade fair. KNX occupied an area of more than 700 square metres – that's over three and a half times more space as the KNX stand at light+building 2010 – the largest to date. The space was divided into nine areas: presentation of KNX city and Green Technology, applications by 16 system integrators, the new ETS Apps, presentation of KNX members and their latest products, the KNX community and a home and social network area. A

KNX competition, a cinema and a shop were also part of the KNX city. A total of 123 KNX experts from 26 countries were present at the KNX city over the entire week. There was a separate presentation of Green Technology and ETS Apps. The organisers wanted to create a special street atmosphere: a juggler walked the aisles, a caricaturist sat by the "roadside" and street musicians created a unique atmosphere. Visitors had the opportunity to attend two competitions where they could prove their knowledge on KNX.

Similar to light+building 2010, KNX also had a stand in hall 8.0 of over 30 metres long on an area of 200 square metres. The KNX Joint member booth F98 was located between the two entrances at the western side of the hall. 17 member companies from ten countries showed their latest KNX applications at several info panels. Among them were companies like Lutron, Philips and Siemens. Furthermore, KNX also showed the latest features of ETS Apps at this location.



KNX city in the Galleria was the main attraction of the visitors at Light + Building 2012.

Another stand of KNX Association was located in hall 11.1 (C92). The new ETS Apps were also there the centre of attention. In addition, at the stand of the German Electrical and Information Technology Trades (Zentralverband der Deutschen Elektro- und Informationstechnischen Handwerke – ZVEH), the E-House, showed several applications that communicate exclusively via KNX. This special exhibition in hall 8.0 (stand J60) was the heart of this year's presentation by ZVEH at light+building. For the third time in a row, KNX provided the basis for installations

shown in the E House. KNX Association invited visitors to attend the KNX Top Event and the KNX Awards 2012 ceremony on Tuesday, 17th April. The event started at 18.30 at the Panorama Hall of the Forum building of the Frankfurt Trade Fair. From 17:30 visitors could have a chat while taking an aperitif. All visitors received a voucher for an ETS App. The event was fully booked within a week. The organisers welcomed 1,500 participants from 76 countries, twice as much as the attendees of the KNX Top Event two years ago. Guests could not only congratulate the winners of



The ETS Apps were very well received by the visitors.



Participants from 46 countries took part in the KNX competition.

the KNX Awards, they also had the opportunity to see the first presentation of the ETS Apps. After the event, the visitors were invited to attend an after show party. A total of 103 KNX members were present with their own stands at light+building in 2012. At the world's largest trade fair for light and building technology, there was no way around the worldwide KNX standard for home and building automation.



In total 126 employees from 23 countries were active in the KNX city.

9th Award Ceremony reflects the international character of KNX

Glittering KNX Award Ceremony 2012

attended by winners, nominees and more than 1,500 guests from 76 countries

14 KNX Awards were handed out on the 17th of April in Frankfurt (Germany) at the world's largest trade fair for intelligent buildings – light+building 2012 to internationally outstanding home and building control projects based on KNX. The grand award ceremony was part of the world's largest KNX event – the KNX Top Event 2012. To take into account the huge diversity of the various projects from around the world, three additional categories were created for this year's awards: for the first time, separate KNX International Awards were presented for each of three different geographical areas – Europe, Asia, and Africa, America and Australia. In addition, in six categories, two companies were awarded first place, in recognition of the extraordinary originality of the projects entered in these categories. This year's ceremony once again broke all previous records.

The KNX Award, which was created in 1996, is a reflection of the growth of KNX around the world. Initially just a very few projects from Germany and Switzerland were entered, whereas in recent years more and more projects have been submitted from across the globe. At the ninth ceremony on the 17th of April 2012, at light+building in Frankfurt, a total of 14 international KNX projects received awards in eight different categories, in recognition of their exceptional originality, sustainability, and future orientation. Selecting the winners was no easy task for the jury: more than twice as many entries were received this year as just two years ago, with entries coming from 43 different countries. More than 1,500 guests from 76 countries attended the award ceremony, which formed part of the KNX Top Event at the light+building trade fair. The awards were presented by Mrs. Jeglitza-Moshage (Member of Management Board, Messe Frank-



The KNX Top Event reached with the presentation of KNX Award 2012 a total of 1,500 participants from 67 countries, an entirely new dimension.

furt), Mrs. Hüneburg (Head of Energy Division, ZVEI), Mr. Skogberg (AIE President), Mr. Demarest (Director of KNX Association), Mr. Bartley (WorldSkills President), Mr. Krabbe (President of KNX Germany), Mr. Bertram (Vice President, ZVEH), Mr. Houghton and Mr. Doherty (both WorldSkills 2011 gold medal winners).

The award-winning projects entered from Asia, USA and Europe testify the diversity

of ingenious solutions being developed using KNX. 1,000 Euros were awarded in each category to the KNX Award 2012 winners. Each winner in each of the categories additionally received the KNX trophy. The Awards were presented for the following fourteen projects, in eight different categories (see page 6).

Winners of KNX Award 2012

9th Award Ceremony reflects the international character of KNX

International – Europe

Resort La Marquise
(Greece)



Foundation Metal Asturias
(Spain)



International – Asia

Princess Noura University
for women in Saudi Arabia
(UAE)



Asia Square in Singapore
(Singapore)



International – Africa, America, Australia

Surf Coast Shire Civic Building
(Australia)



National

HDI-Gerling headquarters
(Germany)



Factory of Ritter GmbH
(Germany)



Winners and Nominees in front of 1500 guests from 76 countries at the KNX Award in Frankfurt, the 17th of April 2012.



Publicity

KNX introduction in Finland (Finland)



Visit by Mr. Putin to the Moscow State University of Civil Engineering (Russia)



Special

Motor Yacht Konnexa 42 (Germany)



Gran Melia Resort & Luxus Villas Dàios Cove (Greece)



Energy Efficiency

Shanghai Hangqiao Airport (China)



Young

Study of the HTL St. Pölten (Austria)



KNX on the curriculum of TU Darmstadt (Germany)



You'll find the projects of the winners honored with a KNX Award during light+building 2012, illustrated in detail on the following pages.



Links: <http://www.knx.org/knx/knx-projects/knx-award-projects>

<http://www.youtube.com/knxAssociation>



Scenarios in a holiday paradise

Comfort and efficiency by coupling KNX with the hotel management system

Winner
KNX Award 2012
Category
International –
Europe



Stylish waterfall: To prevent a gust of wind from blowing the water in the wrong direction, a KNX weather station switches off the pump when the wind is too strong.

“La Marquise” on the Greek holiday island of Rhodes shows how economic and convenient hotel management can be implemented with KNX. The luxury resort spanning an area of 12 hectares looks like a stylish hotel village with bungalows, green areas and pools. The buildings with luxury rooms, suites, restaurants, bars etc. are fitted with highly modern building technology. The guests already profit from it on arrival: the key card not only opens the door but also activates a room scenario for lighting, air conditioning, TV, hot water, alarm management and information. The KNX installation, which was built by Prousaloglou Pantelis-Konstantinos & SIA OE was presented with the International Award for Europe and supports comfort, security, hotel service and energy efficiency through applications for lighting, sun protection, air conditioning, audio/video, alarm systems and monitoring.

Energy management reduces load peaks

Working together with the hotel management, the system integrator has implemented numerous functions for the well-being and safety of the guests, for energy efficiency and for the smooth operation of the hotel. The interaction of the hotel management system and KNX was developed with IPAS GmbH. The guests can combine their favourite lighting, climate and media entertainment themselves and store them as individual scenes. The key card provides the hotel service with important information, for example when the room is occupied, when it can be cleaned or when guests do not want to be disturbed. If the card holder signals that the room is empty, the lights are switched off and air conditioning devices are switched from comfort to economy mode.

Pre-programmed light scenes are also available in public areas such as the lobby, the bar or the dining room, as well

as the outside areas. Depending on time programs, brightness and hotel management, the light scenes create light moods, ensure safety on the paths and illuminate the architecture. The media control for music in all areas is controlled via KNX audio actuators.

Energy efficiency is an important topic: the fan coil controllers are interlocked with door and window contacts to prevent energy loss. An energy management system for cooling devices, heat pumps and household appliances helps to save gas, water and electricity and prevents peak loads from being exceeded. If emergency power is activated via a generator, an intelligent logic distinguishes between loads that are important for operation and those that are less important and switches them on or off accordingly.

Fault signals and technical monitoring are likewise based on KNX. The display is carried out via a visualisation on the workstation PC or on the move using a tablet PC or mobile phone.

The comprehensive topology was implemented with IP routers and fibre optic technology.

Some details of the project: 8,934 devices and 47,720 group addresses with 124,179 address assignments.

Benefits provided by KNX in this project

- Demand-based control for more efficient energy use
- Increased comfort for the guests
- Improved service
- Safety using alarm scenarios
- Energy management
- Simplified control and operation
- Decentralised remote maintenance from any stationary and mobile PC
- Flexibility for modifications
- Staff workload is reduced

Technical refinements

- Coupling with the hotel management system
- All different kinds of scenarios for lighting, air conditioning, emergency operation, security etc.
- Control of the complete audio system
- Doubling of the possible group addresses through second ETS3 project

Companies involved

Building owner:

AETEK.AE – Hotel „La Marquise“, Rhodes, Greece

Architect:

Afoi Chatzikonstantinou OE & Neos Rythmos, Rhodes

Electrical Engineers:

Prousaloglou Pantelis-Konstantinos & SIA O.E. Smart Building Solutions, Rhodes

Mechanical engineer:

V & D Varouxakis, Ionia, Athens

System integrator:

Prousaloglou Pantelis

Area of application:

Hotel

Functions:

- Lighting
- Heating, ventilation, air conditioning
- Alarm systems
- Technical monitoring
- Energy management
- Audio/video
- Visualisation
- Interfaces to other systems
- Remote monitoring/control

Scope

Number of KNX devices: 8934, Siemens, IPAS GmbH etc.

An example for energy efficiency in Southern Europe

At the Metal Foundation in the Spanish city of Avilés (Asturias), KNX controls and regulates the lighting, sun protection and air conditioning

Winner
KNX Award 2012
Category
International – Europe



With its energy-efficient building technology, the headquarters of the foundation have the chance to become one of the first NZEB (Near Zero Energy Buildings) in Spain

The Metal Foundation in Asturias on the Costa Verde is one of the first educational establishments to offer KNX training in Spain. It is only logical that the new headquarters of the charitable foundation in Avilés should be fitted with the bus system. Since its opening in 2012, training rooms and laboratories are housed on the 3,000 square metres of floor space. The versatility of KNX for efficiency, comfort, security and control should be illustrated by the building automation system. The building technology emphasises the foundation's commitment to new technologies for sustainability and environmental protection. The project was supported by industry partners both in an advisory and physical capacity. The engineering office DOERCO in Gijón was presented with the KNX Award International Award for Europe for its successful system integration.

The 150 lighting circuits of the interior lighting are controlled via KNX. Constant lighting controllers which take into account the level of daylight are implemented in rooms with large windows and they are therefore extremely efficient. Presence detectors also provide economic lighting on demand. In spite of this, it is possible to switch the light on manually via a push button when it is economically reasonable. An astro time switch ensures that the exterior lighting is automatically switched on at dusk, is switched off during the night and then switched on again at dawn.

The blinds in front of the training rooms and offices are used for anti-glare protection and support the energy efficiency of the building. They keep the building cool in the summer and let the sun's warmth into the rooms during the winter. This intelligent control is based on a Heliometric software and re-

ceives the data from weather stations, such as brightness and wind force, room temperature, presence signals, sun position and points of the compass. Even the louvre angles are set automatically. The KNX individual room controller also saves energy whether it is for heating or cooling. The setpoint values, whether comfort or standby, are set independently of the layout. The interlocking of the control circuits with window contacts prevents loss of heat or cold. KNX communicates with the HVAC system to adapt the generation of heat or cold to the requirements of the room. The KNX terminal of a Wago IP controller is used as an interface and integrates other systems such as BACnet, MODBUS, DALI and EnOcean. With the KNX intruder alarm system, signals from presence detectors and window contacts are used to trigger the alarm and activate the surveillance cameras. An energy management system, which is organised via an "eibPort" module, processes consumption data. The interface to the BMS increases the level of security in the event of an alarm and technical monitoring supports the system maintenance. Fault signals can be sent via email. Four touch screens are installed for the central control and operation of the KNX functions. There is also a central control point with a visualisation screen from which you can access the entire building technology.

Benefits provided by KNX in this project

- Energy-saving control of the lighting systems
- Efficient and convenient individual room control
- Sun protection supports the ambience in the room
- Energy management
- Central control
- Technical monitoring
- Visual perception of advanced KNX training
- Flexible for optimisation and changes in use

Technical refinements

- Constant lighting control for room lighting
- Preventative and corrective maintenance through current detection
- Temperature control communicates with the HVAC system
- Wago IP controller as interface between KNX and other systems
- Blind control dependent on meteorological data and solar position
- Fault signals via email

Companies involved

Building owner, Planning:

Fundación Metal Asturias, Avilés (www.fundacionmetal.org)

KNX System Integrator:

KNX system integration: Doerco Ingeniería, Gijón, (www.doerco.com)

Area of application:

Educational institution

Functions:

- Lighting
- HVAC
- Shading
- Alarm systems
- Technical monitoring
- Energy management
- Visualisation
- Interfaces

Scope

Number of KNX devices: 340, ABB, b.a.b.-technologie GmbH, Jung, Schneider, Siemens, Somfy, Mobotix, Wago etc.

Costs:

330.000 euros

Excellent study atmosphere in desert campus

In Saudi Arabia's university for women, building system technology controlled by KNX enables the university to operate efficiently



The campus of the Princess Noura University for Women is impressive due to its size, architecture, comprehensive teaching programme, social facilities – and due to its highly modern building system technology

The Princess Noura Bint Abdul Rahman University in Riyadh, Saudi Arabia is the largest and probably the most modern university for women in the world. The teaching and research establishment incorporates faculties for health, humanities, art, languages, geography, history and Islamic studies. The campus covers 800 hectares and has been conceived as an independent district. It has space for 40,000 female students and 12,000 employees and includes a library, a university clinic, research centres, halls of residence, social facilities such as kindergartens, schools, mosques and even its own automatic rail system. The installation with its impressive and stylish architecture began operations in 2012.

The best features of the complex can also be seen in the building system technology. The KNX building system technology ensures efficient lighting and air conditioning and provides protection against sun and heat in all the university buildings. The system integrator of the extensive KNX installation, "Modern Times Technical

Systems (MTTS)", was presented with the International Award for Asia for this project.

Sun protection supports the air conditioning

Strong sunlight and temperatures over 45 degrees Celsius – as is usual in desert regions – require reliable sun protection or shading technology for the large glass fronts of the building. A comfortable atmosphere in the lecture halls, seminar rooms, offices and in areas such as the library and cafeteria is a prerequisite for the efficient operation of the university. Thousands of blinds not only protect against glare but also prevent the high levels of solar heat from penetrating the building. The blind drive mechanisms on all four facades of the building are controlled via a KNX weather station (Somfy AS-513) dependent on the current position and intensity of the sun. The option to set the blind and the louvre positions manually via a bus push button meets any individual requirements. These settings are reset to automatic mode via presence detectors when people leave the room. The air conditioning is made

more efficient by the sun protection which is an important factor for operating costs and environmental protection.

Partition control divides room functions

The bus installation for the lighting control in the 3- to 4-storey university buildings is divided into zones, with a distribution of the corresponding switch actuators, dimming actuators and other KNX devices. Presence-dependent and daylight-dependent controllers or constant lighting controllers ensure efficient lighting in classrooms, laboratories, offices, toilets etc. Manual operation is possible via bus push buttons. During presentations in the lecture halls and classrooms for example, it is possible to simply call up brightness values for the lighting and to set the darkness level via scene buttons (bus push button or media control). The technical refinements of the system include intelligent partition wall controllers. If the large lecture rooms are divided into two rooms, the room functions for lighting, shading and operation are automatically divided into two independent units.

KNX MT-701 panels are used for local central operation such as emergency lighting functions. They also make logic, time switch and scene functions available. A visualisation of the central operation, monitoring and control of the entire KNX installation was implemented with the NETxAutomation software. KNX is also able to communicate with the campus management system via a KNX BACnet gateway. The presence status in the individual rooms is used for occupant-depend-

Winner
KNX Award 2012
Category
International – Asia



ent setpoint adjustment of the climate control – a further contribution to increase building efficiency which is a mandatory requirement for the Princess Noura University due to the LEED standards (Leadership in Energy and Environmental Design).

Benefits provided by KNX in this project

- Sophisticated sun protection systems
- Energy-efficient lighting control
- Support for the air conditioning
- Automation with individual possibilities for operation
- Convenient scene control
- Central monitoring, operation and optimisation
- Flexible system for changes and extensions

Technical refinements

- Automatic shading with option of manual operation
- Presence-dependent and daylight-dependent lighting control
- Constant lighting control
- Retrievable scenes for projection mode
- Automatic partition wall control
- Communication with campus management
- Interfaces to BMS and to AMX media control

Companies involved

Services Engineers, Electrical Engineers, KNX System Integrator:
Modern Times Technical Systems (MTTS),
www.mtts.com

Area of application:
University

Functions:

Lighting, Sun protection system, Heating, ventilation, air conditioning, Technical monitoring, Energy management, Audio / video, Visualisation, Interfaces

Scope

Number of KNX devices: 6550, ABB, Gira, Somfy etc.

Costs:

3,200,000 US dollars

Highest level of efficiency for Singapore's skyline

In the twin-tower development Asia Square, KNX supports climate protection, comfort, safety and technical service

Winner
KNX Award 2012
Category
International – Asia



The towers are over 220 metres high and were presented with the coveted Green Mark Platinum Award

Singapore's skyline continues to grow not only in height but also in the number of skyscrapers. Amongst the newest of those completed are the Asia Square Twin Towers near the Marina Bay financial centre. On the 43-46 floors, there is a luxurious 280 room hotel, 190,000 square metre office space, an extensive sales floor for boutiques and a public podium for cultural events. Global companies such as Citi Bank, Julius Bär, Bank Sarasin, Lloyds, Google, Marsh and McLennan Companies amongst others have moved in here. The two Towers I + II are currently among the 10 highest in the metropolis.

The buildings received the highest accolade with the Green Mark Platinum Award, a coveted title for environmental and sustainable building. One of the priorities was the production of solar electricity and biodiesel as well as water efficiency. Energy-saving building system technology

has also an important role. The KNX control solutions integrated by Yumetronics Pte Ltd in the lighting, technical monitoring and energy management functions have therefore earned the International Award for Asia according to the KNX jury.

Tenants can create their own switching programs

Over 90 percent of the lighting in the buildings is efficiently controlled via KNX. Presence detectors, brightness sensors, timer programs and schedules ensure that lighting circuits are only switched on when they are required and are dimmed down during daylight – without any loss of comfort or convenience.

The level of safety is also increased by the KNX applications. The presence signals from the staircase area are therefore used for monitoring in connection with the IBMS. The coupling also enables the lighting in the escape and evacuation routes to be switched on fully automatically in the event of a fire.

All the KNX functions can be supervised from a central location via the "Lighting Control and Management System" (LCMS) developed by Yumetronics. The recording of the operating hours of the luminaires and the evaluation of loads contribute to rapid servicing, efficient building maintenance and optimisation of the energy consumption.

The visualisation (ABB) also offers individual users the option of creating their own switching programs using access rights e.g. according to working hours, occupancy etc. Remote control via the internet is also possible.

Coupling the lift control with an authorisation card is one of the technical refinements. It also activates the lighting on the floor on which the lift arrives.

All the parties involved in the project profit from the KNX installation, since planning security and system flexibility were key factors at the project design stage. The LCMS saves the building owner and the tenants energy and labour costs. Control functions can simply be adapted when the room use changes while the guests and employees enjoy comfortable lighting conditions. To meet personal preferences and to adapt when the working day is extended, room functions can simply be operated manually, even directly on the workstation PC. Prewarning functions such as the lights flashing prevent the building from being plunged into sudden darkness when there is a master reset.

The climate protection also profits from the reduction in the carbon footprint due to lower energy consumption and no longer burning time of the luminaire.

Benefits provided by KNX in this project

- Versatile functionality, large number of components
- Flexible for optimisation and modifications
- Energy-efficient lighting
- High technical comfort
- Access rights for tenants
- Central technical monitoring
- Multiple use of the presence signals
- Security through coupling with the BMS
- Supports economic efficiency and sustainability

Technical refinements

- "Light Control and Management System" (LCMS)
- Supports systems such as DALI or 1-10V
- Monitoring of luminaires and operating hours
- Access rights for tenants
- Coupling with IBMS and emergency lighting
- Prewarning in event of a master reset

Companies involved

Building owner:

MGPA, www.mgpa.com

Electrical Engineers and KNX System Integrator:

Yumetronics Pte Ltd, Stanley Yeo, Singapore

Area of application:

Hotels, offices, retail, culture

Functions:

- Lighting
- Technical monitoring
- Energy management
- Visualisation
- Interfaces to other systems
- Remote monitoring/control

Scope

Number of KNX devices: 4200, ABB, Theben etc.

Costs:

2,500,000 US dollars

Pioneering building system technology on Australia's famous Surf Coast

KNX integrates all the functions for efficient control and central energy management

Winner
KNX Award 2012
Category
International Africa,
America, Australia



Environmental protection and sustainability are valued highly on the Surf Coast. The efficient building system technology with KNX meets this requirement

With its spectacular scenery and ideal surfing conditions, the Surf Coast in Victoria, Australia attracts tourists from all over the world with its nature reserves. The "Surf Coast Civic Building" began operations in 2011 in the small township of Torquay at the gateway to the Great Ocean Road. It is a modern community centre for sport, culture and communication. During the implementation, the builder Surf Coast Shire Council placed great importance on environmental protection and energy efficiency. This is also shown in the building system technology which is controlled efficiently via KNX. The integration of a wide variety of functions in a central system is a new

and innovative idea for Australia – this was one of the reasons that the system integrator Peter Garrett of mySmart CTI decided on the versatile global standard. It is not only possible to control all the lighting and monitoring functions, as well as, the energy and water consumption via a 40" LCD display in the building foyer but also to visualise the energy gains of the wind power and photovoltaic systems which belong to the complex. This presentation has public appeal and emphasises the environmental-friendly building concept. The impressive KNX installation was presented with the International Award for Africa, America and Australia.

Building blocks for the Green Building certificate

mySmart CTI integrated all the features of KNX in order to implement the efficient lighting control system including: lighting sensors and dimmers which ensure a consistent level of brightness with optimum use of daylight, presence detectors provide lighting according to demand. The floodlights on the playing field are switched on and off via brightness sensors depending on the time that they are used. Unnecessary burn times are thereby avoided.

KNX push buttons and controllers also ensure that convenient manual operation can be carried out.

Ventilation systems and individual heating devices can also be controlled via KNX, partly automatically and partly manually. They can thus be included in the central control system. The following functions are integrated in the energy management system: lighting control, shutters and blinds control, energy monitoring, consumption display and smart metering for renewable energy. To achieve the highest possible level of efficiency, hydraulic systems such as rain water pumps and solar hot water pumps are monitored, flow rates are measured and temperatures are controlled via KNX.

The interface to the AMX media technology is one of the highlights of the installation. By coupling the audio and video system with the KNX lighting control, relevant lightscenes can be called up during events. These scenes can be created individually by the user via the visualisation system. A 42" LCD display has been installed in the foyer for the public display of the energy currents and

Benefits provided by KNX in this project

- Energy-efficient control of the building technology
- Integration of all functions for central management
- Smart metering for energy loads, water consumption and regenerative energy sources
- Presentation of loads and energy gain via a 40" LCD display
- Monitoring and fault signals
- Remote access for service and maintenance

Technical refinements

- Merging of different functions for central management
- Coupling of the media control with retrieval of lightscenes
- Arming of the security technology triggers lighting functions

Companies involved

Building owner:

Surf Coast Shire Council, Torquay, Australia

KNX System Integrator:

Peter Garrett, mySmartCTI, North Ryde, Australia

Area of application:

Public building

Functions:

- Lighting
- Heating, ventilation
- Technical monitoring
- Energy management
- Audio/video
- Visualisation
- Interfaces to other systems
- Remote monitoring/control

Scope

Number of KNX devices: 279, ABB, Hager etc.

Costs:

130,000 Australian dollars



analysis. The central management is based on the NETxAutomation Voyager software which also enables remote servicing on the PC. Last and by no means least, is the KNX technology which controls the building efficiently and has contributed to its certification as a 5-star Green Building. At mySmart CTI, they are proud to have been instrumental in building this world class facility.

Intelligence of stellar architecture

Integrated into a sustainable building concept with KNX modules

Winner
KNX Award 2012
Category
National



Freely definable KNX light scenes contribute to the success of the events held in the 2500 square metre atrium.

High levels of daylight, glass building materials and an imposing architectural design from the star architects "Ingehoven Architects" characterise the new headquarters of the HDI Gerling property insurance group in Hannover. Spread over five floors and covering an area of 75,000 square metres, 2000 employees have a modern, ecological and ergonomic place to work. The sustainable building concept is guided by the DGNB gold standard and links minimum consumption of energy and resources with greater convenience of use. In addition to triple glazing, thermal insulation and the production of regenerative energy, the lighting and blinds controlled by KNX is an important part of the energy efficiency throughout the system. The company charged with the project implementation, Bauer Elektroanlagen GmbH Halle, was presented with the KNX National Award for Germany for this unusual project.

Sun protection designed using a model

The blind control in building complexes is very important. Possible wind influences, seasonal positions of the sun, shadows, reflections and thermal discharge have therefore already been simulated and calculated during the planning phase using a model. A complex blind control system was developed on this basis with KNX, SMI and Ventus Digisonic sun protection. The shading functions depend on a time program, solar radiation, shadows and wind strength. 70 wind monitoring points have been installed to take into account different wind conditions of the facades. Finally, the automatic louvre adjustment guarantees optimum use of external brightness. The employees are also able to operate their blinds themselves via bus push buttons. The presence- and brightness-dependent lighting control via KNX and DALI is also efficient. The high level of flexibility of the lighting installation is impressive,

whereby each of the 3000 lights has its own presence detector. The light sources can be easily assigned with the specially developed Codesys program when there are changes in use. Bus push buttons have been equipped with the flexible system Gira ITS30. Smart sensors, which match the décor, control the ceiling cooling fans.

The lighting in the corridors, staircases, underground car parks and outdoor areas is also controlled automatically. In the conference area, scenarios with blackout, lighting and projectors can be called up via the media technology. By coupling the intruder and fire alarm system, the lighting is automatically switched on and blinds are raised in the event of an alarm.

KNX panels have been installed in areas where operating functions are more frequent, such as the restaurant, the canteen, the kitchen and conference rooms. Important KNX functions are monitored, controlled and influenced via a central building management software. To do so, 4,500 data points have been processed via the KNX OPC server Net-X-Automation. The topology of the KNX installation is organised via Wago KNX IP controllers which also provide interfaces to other systems with corresponding "terminals".

Benefits provided by KNX in this project

- Increased energy efficiency through intelligent functions
- Comfortable working conditions due to optimum shading
- Individual operation of lights and blinds in the offices
- Central functions for lighting, sun protection and room temperature
- Light moods for events thanks to scene control
- Consistent and uniform installation
- Flexible for changes in use

Technical refinements

- Complex blind control according to time, solar radiation, shadows and wind strength
- Constant lighting control for efficient lighting
- High level of flexibility due to presence detection per lamp
- Special supplementary program for assignment of the lights
- Coupling of intruder and fire alarm systems
- Coupling with the BMS

Companies involved

Building owner:

Ampega Gerling, Hannover
(www.ampegagerling.de)

Architect:

Ingehoven Architects,
Düsseldorf,
(www.ingehovenarchitects.com)

Electrical installer and KNX System Integrator:

Bauer Elektroanlagen GmbH
Halle (www.bauer-netz.de)

Area of application:

Administration building

Functions:

- Lighting
- Sun protection
- Cooling
- Alarm systems
- Technical monitoring
- Energy management
- Media technology
- Visualisation
- Interfaces to other systems

Scope

Number of KNX devices: 1793,
Gira, Siemens, etc.

Costs:

800,000 euros

Factory recycles waste heat from production

KNX automates ventilation, lighting and heating in industrial company



The new factory has production plants, warehouses and offices on its 5700 square metres site.

An industrial installation by Anton Hieber GmbH & Co Elektroanlagen AG shows how a ventilation system can be controlled efficiently with KNX in addition to the usual functions. At Ritter GmbH in Schwabmünchen, a manufacturer of plastic cartridge systems, considerable levels of waste heat accumulate when producing the castings. Ventilation functions in the new factory building are controlled via KNX, so that the room remains pleasantly cool in the summer while the residual heat helps to heat the room in the winter. The presence- and daylight-dependent lighting control is also efficient. The energy saving achieved and the short-term return of investment were amongst the factors which impressed the KNX jury for the National Award for Germany.

The production in the new factory runs 306 days a year round the clock. So that the lighting need not to always be switched on at full brightness with over 600 fluorescent lamps, KNX automatically regulates the light intensity in connection with DALI. Presence detectors keep watch simultaneously, so that the light is only switched on when people are present. A saving effect of up to 70 percent is achieved. The sophisticated ventilation control brings further savings and even an energy gain. Ventilation flaps in the skylights – exterior and interior flaps – as well as openings for additional air in the side windows are opened and closed dependent on the temperature. While the extracted air is discharged over large areas during the summer, the ventilation in the winter is limited to the smaller interior flaps. This prevents the building from cooling down rapidly. The

KNX control of the ventilation flaps communicates with the fire alarm system so that they open automatically as a flue in the event of a fire. Finally, a weather station monitors the flap control and protects against rain and storms.

The waste heat of the production plants incurs heat gain: KNX temperature controllers control the heat removal so that it is either conducted over the roof or inside. The heating system itself, consisting of dark emitters, is controlled fully automatically via KNX.

A facility server with a corresponding 3D visualisation acts as a control point. Remote access using a smart phone or tablet PC is thus also possible. The server collects all the KNX fault signals, for example from the transformer station, compensation system, overvoltage monitoring, lifting system, air pressure monitoring etc. and relays important signals. Consumption values are also evaluated here.

The automated suction of ozone from the printing machines and harmful gases from the washing plant are among the technical refinements of the KNX system.

The system integrator points to a significantly smaller energy footprint: "Due to the temperature-dependent ventilation and use of waste heat, the use of fossil fuels can almost completely be avoided." Including the lighting and the ventilation, this means around 280 tonnes less CO₂ or 50,310 euros lower operating costs per year.

Winner
KNX Award 2012
Category
National



Benefits provided by KNX in this project

- Economical and comfortable lighting (savings up to 70%)
- Good indoor climate due to temperature-controlled ventilation
- Low heating costs through heat gain in the winter
- Central visualisation in a clear 3D environment
- Users can set parameters and setpoint values themselves
- Technical fault signals and central monitoring
- Remote operation via Internet

Technical refinements

- Complex control for electrically operated ventilation flaps and windows
- Control of the waste heat from industrial production
- Technical monitoring with integration of fault signals from the energy supply and production plants
- Integrated emergency lighting

Companies involved

Building owner:

Ritter GmbH, Schwabmünchen, www.ritter-online.de

Planning:

Hermann Wiedemann, Ritter GmbH

Electrical Engineers, KNX System Integrator:

Anton Hieber GmbH & Co Elektroanlagen KG, Schwabmünchen, www.elektrohieber.de

Area of application:

Industry

Functions:

- Lighting
- Heating, ventilation
- Technical monitoring
- Energy management
- Visualisation
- Interfaces
- Remote monitoring/control

Scope

Number of KNX devices: 120, ABB, Arcus-eds, Gira, Merten, Siemens, Theben

Costs:

600,000 euros

KNX competence for Finland

Members of the KNX national group successfully stand up for information and training

Winner
KNX Award 2012
Category
Publicity



The association of Finnish electrical installers STUL organises KNX basic courses for the electrical trade.

With the award “KNX introduction in a new country”, three KNX project applicants shared the prize for the successful launch of the KNX system in Finland: Tampereen Ammattikorkeakoulu, Sähkö- ja teleurakoitsijaliitto and STUL ry/KNX Finland ry. The submitted project describes how Finland has been introduced to KNX applications through seminars, training courses, exhibitions and conferences. These activities were the basis for developing the KNX market in this Scandinavian country. The targeted activities were presented with the Publicity Award by the KNX jury.

Impetus for the building automation market

When the National Group of Finland was founded in 2008, the companies Tampereen Ammattikorkeakoulu, Sähkö- ja teleurakoitsijaliitto and STUL ry/KNX Finland ry were involved. At that time, there was no official KNX training centre or competent KNX experts in Finland and certainly no market for KNX

components. The system for home and building automation was generally unknown. Those that did choose this worldwide, standardised building automation system were directed to training courses abroad in another language or had to teach themselves about the installation of KNX system and ETS. Finnish electrical installers should have the opportunity to earn the KNX partner certification in their own language. The group set the following goals under the coordination of tutor Veijo Piikkilä: publishing the KNX handbook in Finnish, founding certified training schools and training Finnish certified KNX tutors. Collaboration with the association of Finnish electrical installers was also sought and proved to be very successful.

Their commitment has paid off: by the end of 2011, 600 handbooks were sold in Finnish and 16 basic courses had been held. More than 100 graduates were able to receive their certificate. Mean-

Companies involved

Tampereen Ammattikorkeakoulu,
Sähkö- ja teleurakoitsijaliitto
STUL ry/KNX Finland ry.

while there are seven trained KNX tutors and three KNX schools on offer. At a nationwide tour across Finland with a KNX introduction and trade fair appearances, there were over 300 participants. There is also basic information available in Finnish. An increase in activities is requested and the National Group of Finland has therefore set further goals for 2012. As a consequence of the development of competence in the market, people and companies involved, can count on a strong impetus across the entire supply chain of building automation, from manufacturers and suppliers of KNX products, to planning engineers and electrical installations to service organisations.

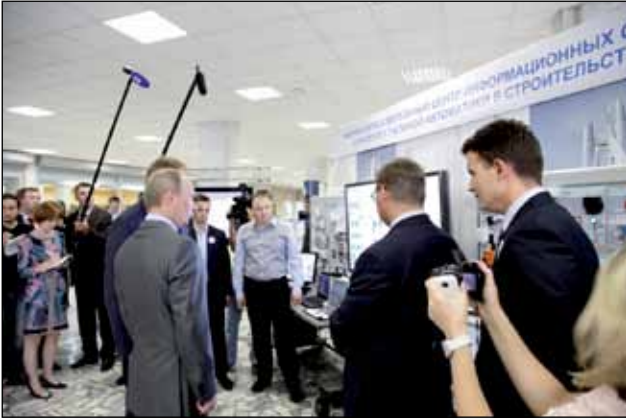


Training courses in the Tamk training centre

The president acquaints himself with energy efficiency using KNX

KNX Russia presents KNX home and building automation to an important visitor

Winner
KNX Award 2012
Category
Publicity



The Russian president Vladimir Putin is shown KNX lighting control functions

Now even the Russian president Vladimir Putin knows that there are control systems which support efficient building management. During a visit to the Moscow State University of Civil Engineering, he was given the opportunity to learn about the latest trends in building automation with KNX. For the first time on a global scale, the benefits of KNX technology have been presented to an incumbent president. KNX Russia set up training benches to demonstrate the functions. The president and his companions appeared interested and were impressed by the lighting control with dimming functions and scenes. This initiative and exemplary demonstration of home and building automation functions by KNX Russia has been rewarded with the Publicity Award as KNX Russia installed both a training room and a showroom in the university.

Building intelligence on 40 square metres

The training benches in the KNX laboratory are equipped with the most important building automation functions. In addition to lighting control, these include room temperature control, blind control, alarm systems and technical monitoring. Using algorithms, the course participants can, for example, link room temperature values, night cooling and blind control so that energy-efficient heating and cooling is

achieved. The integration of video and audio via an AMX gateway conveys the possibilities of media control.

In the showroom, functions and operating states can be operated and controlled via a touch panel (Jung) and a mobile panel. Setpoint values can be set here via designed menus, lamps can be dimmed and video images of the monitoring system can be called up. Even Microsoft Surface (new name PixelSense) table with a multi-touch surface has been integrated so that interested parties can be shown special high-end applications.

The fundamental benefits of the global standard can be expressed if nothing else: efficient building technology, functionality, security, comfort and the interoperability of the various manufacturers in KNX. The integration of all possible functions in a room that covers only 40 square metres can be called "a technical achievement" – with various lights, fan coils, heating control, projectors and operating elements.

Benefits provided by KNX in this project

- Demonstration and training of building automation
- Integration of lighting, heating, air conditioning, blind control, sun protection, media technology and video monitoring
- Central control and operation
- Operation via AMX media technology
- Operating elements with an emphasis on design

Operator:

KNX Russia, Andrey Golovin,
www.konnex-russia.ru

Scope

Costs:

125,000 US dollars



Intelligent building automation functions were demonstrated in the meeting room

Together with KNX on an eco journey

Intelligent functions make motor yacht comfortable and safe

Winner
KNX Award 2012
Category
Special



Proficient on the high seas. Stainless steel designer push buttons in the cockpit while the actuator technology is protected in the distribution board in the hull

KNX gives you many good ideas. Why not enhance the sophisticated technology of a yacht with KNX electrical installation? Many high-quality components in terms of functionality and design are available. At eibmarkt.com GmbH, they considered this idea and automated the electrotechnology of a sports yacht with KNX and integrated many new functions for increased comfort and safety. After two years of planning and eight months of system integration, the global standard became fit for the high seas. After all, harsh conditions such as salty air, vibrations, humidity, heat and cold also had to be taken into account. This extraordinary project with the apt name of "Konnexa 42" impressed the jury and was presented with the KNX Special Award.

Nautical data on the touch screen

In the evening, the lights switch on automatically. Light scenes ensure an atmospheric ambience which is appropriate on a luxury yacht. In night mode, discretely placed LED luminaires show the safe route to the bathroom or the deck. They are automatically switched on and off by presence sensors on the floor area.

In addition to the usual functions, such as lighting, room temperature control, media control, monitoring functions and load management, great importance was placed on small details. Automatic blackout and cleaning detection are integrated in the touch panel which prevents disruptive brightness and bad operation. Signals which are of vital significance, such as water ingress, are reported throughout the ship via voice output. Load management distinguishes between electricity from onshore or from the onboard battery and controls the load accordingly

in full mode or economy mode. A particular feature is a specially developed interface between KNX and the onboard electronics NMEA and the machine protocol CAN bus. This enables all the nautical ship data to be visualised and evaluated via the KNX server. Faults and operating states are detected quickly. This includes sophisticated functions such as the weather display or storm warnings with a wake-up function which make life on board comfortable and safe. The determination of the speed for an environmentally friendly boat trip is calculated by the KNX server using existing data about the engine and its consumption and is also dependent on wind, waves and loads.

A monitor from Pro Face, with Elvis visualisation software, has been certified for use on yacht functions as a control unit. Presence detectors take on multiple functions for lighting control and the alarm system. Internet, music control, fault signals are integrated, as well as smoke detectors and water sensors. Large push buttons and the versatile room controller from Jung in stainless steel were chosen for the operation. Actuators with current detection supply data for the load management. 91 KNX devices in total are installed whose function has been accepted by the SeeBG (ship safety). The "Konnexa 42" project is currently an approved exhibition and training yacht which can inspire both imitators and interested yacht owners.

Benefits provided by KNX in this project

- Central visualisation of all the functions of KNX and onboard electronics
- Scene control for LED effect lighting
- Time programs
- Energy and load management
- Economical calculation of boat trips via the KNX server
- Voice output and voice control
- Smoke detector monitoring
- Leakage monitoring
- Window and door monitoring
- Operating, fault and alarm signals
- Weather station for weather warnings
- Remote maintenance

Technical refinements

- Interface to onboard electronics and machine protocol

Companies involved

KNX System Integrator:
Marco Labahn, eibmarkt.com GmbH, Plauen

Area of application:
Motor yacht

Functions:

- Lighting
- Air conditioning
- Alarm systems
- Technical monitoring
- Load management
- Multimedia
- Visualisation
- Interfaces to other systems
- Remote monitoring

Scope

Number of KNX devices: 91
Different manufacturers

Costs:

95,000 euros

Bus technology ripe for the island

In the luxury Cretan resort, extensive KNX installation ensures comfort and efficiency

Winner
KNX Award 2012
Category
Special



Landscape and technology: KNX scenarios conjure up light moods in the evening

Crystal clear water, panoramic view, immaculate beaches, sun all year round, mild climate – the 5-star luxury beach resort Gran Meliá & Luxus Villas Daios Cove in Agios Nikolaos in the north east of the Greek island of Crete scores on all these points. And so much more: 300 rooms, suites and villas, their own swimming pools, charming gardens etc. The resort, which has been built in the tradition of Cretan villages, is also at the peak of technology. 20,000 light sources create light moods at night-time, set scenes in guest accommodation and ensure that the paths are safe. The lighting and other functions are controlled automatically and efficiently via KNX. The great challenge for the system integrator Automationsystems Triantafillidis, was the enormous scope of the resort, which covers 30 hectares and has almost 6800 bus devices, divided on 300 lines, 32 areas and a kilometre long fibre optic network. The solution that was implemented impressed the KNX jury who presented it with the Special Award.

Remote maintenance from the mainland

Time programs, brightness sensors, scenarios and logic functions, control the interior, exterior and architectural lighting. In the conference rooms, blackout blinds, screens, projectors, lifts and dimming functions are integrated in scenarios. Even in the rooms, suites and villas, the ventilation, the heating and the air conditioning devices are activated automatically. Once the guests check in, they are greeted with a pleasant light mode. They can of course specify the lighting in the room themselves via push buttons. Automatic mode is reactivated once the guests leave the room, triggered by a master OFF button or by reception. The superfluous sockets are also switched off. It is convenient feature for the guests that they can signal at the touch of a button that they do not want to be disturbed, or that the room can be cleaned. There is even a plan for the 11 villas whose guests will be able to operate their room functions on the move using an iPad.

Via a KNX visualisation screen, the employees at the reception desk are able to control all the functions on the hotel premises and remain informed about the occupation status of each room and the requirements of the guests regarding the room service. Five touch screens are used for the control and operation of the individual areas such as the swimming pool (spa), the restaurants, the reception desk and the conference rooms. Two further monitors are responsible for managing general hotel functions.

Functional reliability is achieved with a separate bus voltage supply per guest unit. Malfunctions are displayed on a visualisation screen and can be quickly rectified. The problem of the topology is solved using IP routers, which are linked together via a fast fibre optic network for KNX and TCP/IP. One of the technical refinements of the KNX installation is that the entire installation can be maintained remotely via VPN using an OPC server by the system integrator which is located 900 km away, in Thessaloniki.

Benefits provided by KNX in this project

- Automatic lighting control
- Lights can be switched and dimmed individually
- Integration of heating, ventilation and air conditioning
- Increased comfort for guests
- Efficient room management
- Energy saving through time programs and automatic setpoint reduction
- Central operation of individual areas via touch screens
- Monitoring of technical faults
- Remote maintenance

Technical refinements

- Scenarios can be modified or overridden via access rights
- Integration of the media technology
- Simple operation for guests with a service function and central "OFF" switch
- Possible coupling with hotel management, comfort operation with iPad, central BMS
- Networking via IP routers
- Routing with OPC server for remote maintenance

Companies involved

Building owner:

Daios Cove Crete,
www.daioscovecrete.com

KNX System Integrator:

Automationsystems
Triantafillidis,
www.automationsystems.gr

Area of application:

Luxury hotel, holiday resort

Functions:

- Lighting
- Heating, ventilation, air conditioning
- Technical monitoring
- Energy management
- Audio/video
- Visualisation
- Interfaces to other systems
- Remote monitoring/control

Scope

Number of KNX devices: 6728, various manufacturers

Costs:

1,700,000 euros

Intelligent control makes airport more efficient

Terminal II, Shanghai Hongqiao Airport, equipped with KNX



The control system takes into account natural daylight to implement efficient lighting

In China, the aeroplane is experiencing a rapid increase in use as a fast means of travel and transport. Hongqiao airport, located in the conurbation of Shanghai with 25 million inhabitants, was extended by a second runway and a second terminal to meet this demand. Since 2010, the Shanghai Hongqiao International Airport can handle 300,000 flights and 40 million airline passengers per year. Terminal II, with a main building and boarding corridors with distances of 1.8 and 0.5 kilometres, is designed for 30 million passengers. This tremendous scale indicates the extensive lighting system with approximately 6,000 lighting circuits and their energy consumption. Installing an energy-efficient control system represented a considerable and interesting challenge for the company Shanghai Longchuang Automation Control System Co. Ltd. The perfect solution to this difficult task was presented with the Energy Efficiency Award 2012 by KNX.

It was already evident during the planning phase of the project that the annual energy costs in Terminal II for the lighting alone amount to hundreds of million yuan. A more efficient use of energy with the help of intelligent controllers was therefore called for. These controllers should provide a comfortable level of brightness, which takes into account the daylight streaming in through the glass surfaces and switches on only the artificial lighting when it is required. KNX has already proven itself as a standardised system that is suitable for large airports all over the world. The KNX Technology Team of Siemens Building Technologies in China lent their support to the companies carrying out the installation. The extensive system required more than 3,000 KNX devices distributed across 60 KNX lines to be installed, configured and commissioned. Interior and exterior lighting sensors undertake central functions as well as logic controllers which achieve optimum lighting conditions with efficient use of energy. By using external sensors for the waiting areas near the windows, an exact

adaptation of the brightness level can be achieved. Halogen metal discharge lamps are switched on or off via two brightness thresholds which are automatically adapted to the seasons with a high or low level of sunlight. Lighting circuits are also switched dependent on the flight schedule. To do so, the KNX control communicates with the management system via an OPC server. The brightness level is reduced in areas that are less frequented taking into account the departure or the arrival of the flights. Unnecessary energy consumption is particularly avoided in the period between 21:00 and 8:00. The time- and date-dependent controllers are further energy-saving functions. Lights are switched on or off according to the working days, holidays and time-dependent use. A central control point was implemented using visualisation with the Elvis software and therefore, all the lighting functions can be operated and monitored from here. Time programs can also be modified, setpoint values can be adjusted and loads can be evaluated. The extensive installation is divided into five areas to provide a better overview. The consumption data is regularly transferred to the control unit. Trends in consumption are displayed in graphs which are then used for energy optimisation. Longchuang concludes that KNX has proved itself in this project to be an efficient, reliable and extendable system: "All the requirements of an intelligent lighting control system for efficient energy use could be met. An evaluation of the energy consumption shows that an investment in KNX automation will payback in three to five years".

Winner
KNX Award 2012
Category
Energy Efficiency



Benefits provided by KNX in this project

- Energy-efficient lighting control for over 6,000 lighting circuits
- Energy saving through the use of daylight and time- and date-dependent control
- Individual areas can be illuminated precisely according to the flight schedule
- Adapted, comfortable lighting conditions
- Safety through coupling the workplace lighting and emergency lighting with the fire alarm system
- Simple installation, secure investment, extendable system
- Evaluation of the energy consumption via a central visualisation unit

Technical refinements

- Precise adaptation of the brightness level in the window area using external sensors
- Modification of the brightness setpoint values according to the seasons with strong or weak sunlight
- Communication with the flight schedule via OPC server
- Evaluation of the energy consumption via a central visualisation unit

Companies involved

Building owner:

Shanghai Airport Authority

Services Engineers, Electrical Engineers, KNX System Integrator:

Shanghai Longchuang Automation Control System Co., Ltd

Area of application:

Airport

Functions:

- Lighting
- Energy management
- Visualisation
- Interfaces to other systems

Scope

Number of KNX devices: 3000, Siemens

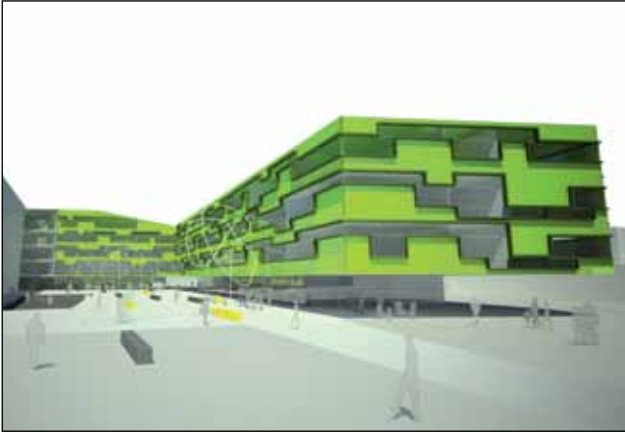
Costs:

600,000 euros

Diploma with a global standard

Study proves that building automation with KNX is worthwhile

Winner
KNX Award 2012
Category
Young Award



Design of the new school centre: The study recommends the KNX worldwide standard for building technology

The thesis of two students at the St. Pölten polytechnic in Lower Austria is not only the successful conclusion of their studies, but also a study of the school centre building project. Using a sample class, the electrical engineers tested which energy saving potentials can be achieved at different levels of the building automation. The focus lay on the individual room control with KNX. The result: there is a 30 percent saving in thermal energy compared to circuit control. If the window monitoring is also interlinked with the heating valves, a saving of 38 percent can be achieved. If you transfer the result to the entire school centre with 200 classrooms, con-

siderable cost savings can be predicted. The study by Lukas Thallauer and Harald Zeller, under the supervision of their tutors Ing. Gerhard Hinterhofer and DI Gunter Speer, was presented with the Young Award.

Recommendations to the school centre

The Department of Electrical Engineering has been running a KNX training centre for several years, where future technicians can obtain the coveted certificate. It is apparent that the concept study is based on the worldwide applied standard. It incorporates room occupancy, window monitoring, weather conditions, recording of data with the Jung Facility Pilot,

evaluation and optimisation calculations. The aim was to calculate the savings potential and the payback period of the investments. In addition to the installation of KNX components, a Jung Facility Pilot is used for building management with the option of remote monitoring. This reduces the control expenditure of the facility manager as shown by the example of window monitoring. The following were also evaluated: the use of an integrated KNX/DALI lighting control system with emergency lighting and evacuation route lighting, a blind control system with a central weather station, control functions based on the classroom occupation from the timetable, reduction in the room temperature by activating the standby mode via presence sensors. The requirements for thermal energy are sent to the primary control.

The study sees benefits through a reduction in the fire load as a result of an optimised electrical installation with increased flexibility for changes in use and optimisation of the functions.

The achieved result speaks for itself, particularly due to the heating functions with associated weather influences, room occupancy and window states. It is therefore possible for any investments to be paid back within five years. In addition, the study recommends that the new school centre should implement the lighting control including emergency and evacuation route lighting, blind control, several terminals for the building management system as well as media control in the ballroom with KNX.

Main points of the thesis:

- Recording of the classrooms
- Calculation of the energy savings
- Additional costs through KNX
- Economic calculations
- Integral concept for all the building services

Companies involved

Building owner:
BIG Bundesimmobilien-gesellschaft m.b.H. Austria

Planning and system integration:
Department of Electrical Engineering, Ing. Gerhard Hinterhofer

Area of application:
School

- Functions:**
- Lighting
 - Heating
 - Monitoring
 - Energy management
 - Audio/video
 - Visualisation
 - Interfaces to other systems
 - Remote monitoring/control

Scope
Number of KNX devices: 10

Costs:
4000 euros



Design of the new school centre:

The Smart Home on the curriculum

Convert theory into practice with KNX

Winner
KNX Award 2012
Category
Young Award



On the KNX test stand, the students can configure and test functions with ETS as they would do in a house

This is how the house of the future will function: the building system observes constantly the energy requirement in each circuits, the energy produced by the photovoltaic system, which is compared with the time variable electricity tariff of the network provider and controls the loads so that they are as energy-efficient and cost-effective as possible. The Darmstadt University of Technology has adopted this in its curriculum.

KNX applications play a major role in converting theoreti-

cal knowledge about Smart Grid and Smart Metering into practical awareness. A test stand in the laboratory of the college simulates the technical functions of a complete house, including the generation of solar energy. The students can develop practical methods based on their theoretical subject matter. They get to know ETS and how bus devices are configured and installations are commissioned. As these types of activities are good for the further development of building automation, the idea and the implementation was presented with the KNX Young Award.



The touch screens on the test stands indicate whether the load management functions are as required

Creative ideas for load management

Halogen spotlights as well as switching and dimming actuators simulate the lighting in an apartment. Further lamps with a capacity up to 5 kW and sockets represent all types of loads. A small roller blind with an electric drive and its actuator represents the blind control system. The integration of household appliances in home automation can be practised using the tumble dryer and washing machine installed with miele@home-Technology. Energy loads including standby loads are determined, evaluated and represented via energy actuators and delta meters. This is carried out with a visualisation via a Busch-Jaeger comfort panel, which also links miele@home and the electronic household meters. Meter readings can be visualised via a flush-mounted Busch-Jaeger display connected via KNX RF. An interface to the KNX Eisbär software enables detailed control intervention and the export of measured values to a computer for research purposes. Remote operation with an iPad is also possible.

It is the task of the student to link installations with useful functions and to implement a load management system. This results in sophisticated solutions being implemented. KNX links the electrical loads of the lighting, the sockets, the household appliances and a self-developed KNX charging post for an electric vehicle with the photovoltaic system. With sufficient excess energy, household appliances or vehicle charging can be activated automatically. On the other hand, the loads are adapted to the time variable electricity tariff which is defined by the

Benefits provided by KNX in this project

- Promotes awareness of efficient energy consumption
- Students can convert their theoretical knowledge into practice
- Realisation of creative ideas due to versatile functionality
- Product functions well and is technically sound
- Visualisation and interfaces to other systems
- Support for scientific research through KNX Association

Technical refinements

- Self-developed KNX charging post
- Integration of miele@home and EHZ
- Detailed visualisation of the energy consumption and energy production
- Interfaces to SMA reducer box and SMA PV backup system
- Load management based on Smart Metering and Smart Grid

Functions:

- Lighting
- Blind control
- Heating, ventilation, air conditioning
- Energy management
- Visualisation
- Interfaces to other systems
- Remote monitoring/control

Scope

Number of KNX devices: 50, ABB, Busch-Jaeger etc.

Costs:

10,000 euros

network provider VNB HSE. Via interfaces to the SMA inverters, the infeed can be reduced or the battery discharge can be controlled. When choosing to incorporate KNX in the curriculum, the system was praised for its function and installation. According to the organizer, Lutz Steiner, "The fact that KNX Association provides support and suggestions within the framework of a scientific membership, is also a benefit compared to other systems".

KNX IP Secure and KNX Secured Application Layer

The tools for the realization of KNX secured communication

With the use of KNX in newer application domains, it is more likely that KNX conveys critical or confidential information.

A couple of examples:

- The hourly energy consumption data is intended for processing in-house, in controllers and displays, but should not be available to the neighbor.
- Vice versa, a KNX device should be able to verify whether load management data really originates from the Metering Gateway or not.
- Obviously, the access code of an anti-intrusion installation should not be transported in plain text, or it should be possible to verify the sender releasing a valve or door.
- And much more...

The first counter measure will always apply: prevent just anybody from gaining physical access to a KNX installation, but this may not always be easy or convenient. On top, the openness of the KNX system, the availability of electronic components and the use of open media like KNX RF, urge for additional measures, embedded in the protocol: KNX Secure.



Message is sent unprotected.



The receiver knows that the message comes from the good sender.



Nobody else except the receiver can understand the message.

KNX IP Secure

This solution above all protects the KNX installation when using the IP protocol as fast backbone or for remote access. KNX IP Secure foresees measures to make sure that the KNX IP device can only be accessed by an ETS user with the correct key; it also guarantees to the ETS user that he really connects to the assumed device, not revealing sensitive configuration data to unauthorized parties. The protocol also protects the runtime communication, proving each communication partners identity.

S-AL – KNX Secured Application Layer

Additionally, on each KNX medium, S-AL extends the common KNX protocol to guarantee that a message has not been modified, is not replayed and comes from the trusted sender. The data is still encoded according the proven KNX Interworking. If additionally the data is encrypted, then only the members of the secure communication will be able to decode the message. The integration in the KNX protocol is designed in a way that existing (Media) Couplers and Interfaces (RS232, USB, IP) can also be used to transfer secure messages.

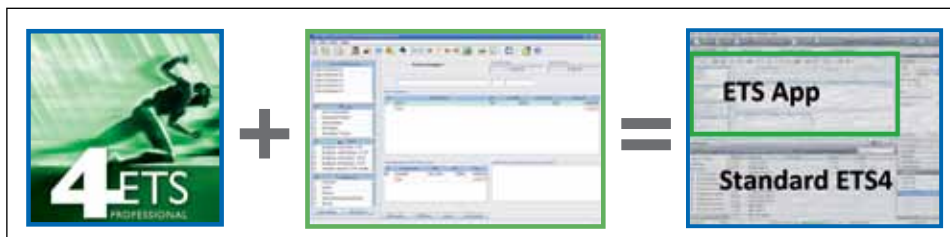
Configuration

The ETS user will be able to choose which KNX data will be secured and how. KNX security keys are never transmitted in plain text. They are protected using a device specific ex-factory key, through certificates or by building up a secure connection to the device, just like when connecting to your bank over the internet. The later method will also be supported in E Mode, like on RF. Even within the devices, keys will be stored in secured memory.

How to become an ETS App Developer

What is an ETS App?

An ETS App is an add-on software program that is used together with ETS. The purpose of an ETS App is to extend the functionality of the ETS Software tailored to the needs of the KNX system integrators. Any existing software can be adapted to the ETSApp interface by using the ETS SDK. Moreover, when a new ETS App is created and is available to the users, there is no need to recompile ETS4. It is plug & play software! An ETS App is similar to the add-ons for internet browsers or apps for smartphones, but only for ETS and is of course exclusively sold via the KNX Online Shop!



Who can become an ETS App developer?

The first step for a developer to join the ETS App world is to become a member of KNX Association International. Any company or individual person involved in the development of software can become an ETS App developer. Anyone who wants to offer his software solution or ETS extensions

to the KNX Community is welcome to do so.

ETS App developer reimbursement for sold ETS Apps

Every quarter – or alternatively, at least after a gross turnover of € 5.000,- KNX Association provides the ETS App developer with a turnover report. The turnover report entitles the ETS App developer to in-

voice KNX Association. KNX Association charges the ETS App developer a commission for all sold or downloaded free ETS Apps. In mutual agreement, this commission may also be deducted by the ETS App developer from their gained turnover.

Advantages of becoming an ETS App developer

Open your market to all ETS end users



ETS Apps are exclusively sold via the KNX Online Shop. Users from more than 115 countries from all around the world are potential buyers for your ETS Apps!

Internationally Boost your Company



Present your ETS Apps in the KNX Journal. The Journal is read by more than 80,000 subscribers worldwide and will provide excellent publicity not only for your ETS Apps, but for your company as well.

Get access to specific Tools

By becoming an ETS App Developer you will get direct access to the ETS App Validation Tool and the ETS Software Development Kit.

Manage your ETS Apps yourself



You can easily and quickly manage your ETS Apps via your ETS App Developer account in our Online Shop. Check how many people use your ETS App and make your own statistics for your sales!

Become known outside the KNX community



KNX will promote your company worldwide by including your logo in future events (exhibitions, seminars, workshops, etc.)

Use the KNX Logo as a Beacon for your Business



The KNX member logo can be used by companies on their KNX-related promotional or other business related documents (letter paper, envelopes, business cards etc.).

A world of business opportunities – One contact: KNX



KNX offers a world of business opportunities. Achieve these by only using the KNX Online Shop: one account, one tool and one spot for customer support.

Extend your worldwide visibility through the KNX website



Your company and contact details will appear on the International KNX website, extending your reach to more than 115 countries.

For further information, do not hesitate to contact KNX ETS App Department via:

Tel: +32.2.7758590
Email: etsapps@knx.org

<http://www.knx.org/knx-tools/ets-apps/ets-app-developers/about>
<http://www.knx.org/knx-tools/ets-apps/ets-app-developers/joining-fees>
<http://www.knx.org/knx-tools/ets-apps/ets-app-developers/faq/>



ETS App development costs

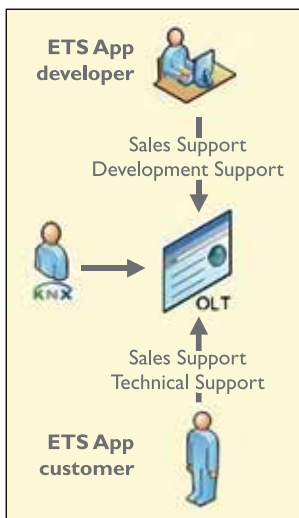
Below are the costs for an ETS App Developer

Name of payment	Amount in Euros	Type of payment
Become KNX Member	€ 1,000	Annually; minimum 'Interested Party' category (stated price applies to companies with less than 100 staff members), but joining in a different category is also possible. Consult our website for all the types of membership (http://www.knx.org/knx-members/joining-fees).
Access to the ETS App Validation Tool	€ 1,000	One time payment
Validation of an initial ETS App	€ 900	For every new to be validated* ETS App
Validation of an upgraded ETS App	€ 250	For every upgraded to be validated* ETS App
Validation of an updated ETS App	€ 25	For every updated to be validated* ETS App
Validation of a commercial or technical repackaging of an ETS App	€ 45	For every repackaging of an existing ETS App
Fee for every paying ETS App	25% of the customer's price	For every sold ETS App
Fee for every free of charge ETS App	€ 1	Per licensed free of charge ETS App

* manually by KNX

ETS App sales and support

The support for ETS Apps is always handled via the KNX Online Shop. Therefore, ETS App developers can use the support function via their individual ETS App developer account for their sold ETS Apps and also receive support for development issues. Moreover, the after sales support for ETS Apps is also included and offered via the KNX Online Shop. We take care of all sales and support activities for you, simplifying the whole sales & support procedure.



ETS App development procedure

Do you already have an idea for an ETS App? Are you innovative? Then you are ready to start!

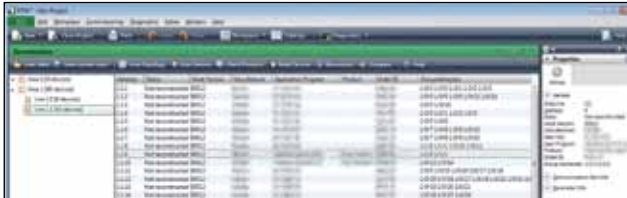
Phase	Phase explanation	Estimated Time
Start your ETS App development	Create an account in our KNX Online shop and download the ETS Software Development Kit (ETS SDK) and the Tutorial for using the ETS App Validation Tool.	Cannot be estimated
Become a KNX Member	When you become a KNX Member you get all the necessary technical support to start developing your ETS App. We will assist you in any issue that you might have.	3 to 15 days
Apply for ETS App Developer Profile	When you are ready to test your ETS App, apply to become an ETS App Developer via your KNX Online Shop account in order to change your status and gain access to the ETS App Validation Tool.	3 to 5 days
Upload & Validate your ETS App	Once your ETS App has been finalized, upload it and ask for validation, so that your App can become available in the KNX Online Shop. Only validated ETS Apps can be installed and used in ETS. This prevents unauthorized use of your ETS Apps. However, when your ETS App is validated, you can either select to keep it 'private'; i.e. only for your own use, or make it 'public', so that everybody will be able to download and use it.	3 to 5 days
Start selling your ETS App!	From now on, you can offer your ETS App exclusively via the KNX Online shop!	Immediately

New ETS Apps

All ETS Apps you can find at www.knx.org → KNX Tools → ETS Apps → Features

IT GmbH, Germany

Recover Project Data
ETS App: „Reconstruction“



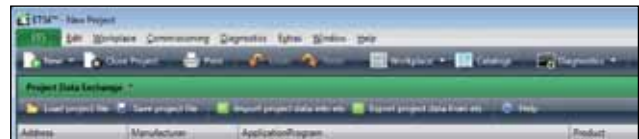
The „Reconstruction“, known as an ETS3-Addon member of the IT Tools for the ETS3 product family, is now available as an ETS App. When the ETS database is no longer up-to-date or project data do not exist, this App helps to update or restore the data. The result of a reconstruction is a new or updated project with topology data

(areas and lines), group addresses, devices with parameters and attached group addresses. Users who know the reconstruction tool from ETS3 will be able to use the tool straightaway and appreciate its benefits due to the complete integration of the App into ETS4.

Contact: www.it-gmbh.de

IT GmbH, Germany

Use the Resources
ETS App: „Project Data Exchange“



In association with ETS3, the import functionality was mainly used to transfer device-list-data in tabular form into the ETS. The new ETS App named „Project Data Exchange“ uses the xml format of ETS and helps to make a comparison of the project data between a program and ETS4 using an additional identification of the device instance. As an

add-on to the former use it is now possible to synchronize a common intersection of data between a program and the ETS.

Contact: www.it-gmbh.de

IT GmbH, Germany

Clearing Onboard
ETS App: „Shift Addresses“



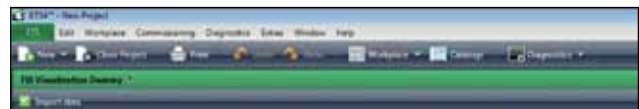
The ETS App „Shift Addresses“ helps to restructure group addresses and physical addresses of an ETS project. With this ETS App you will be able to generate space for new functions

and achieve a clean and logical addressing in your project in such a simple way.

Contact: www.it-gmbh.de

IT GmbH, Germany

Full Availability
ETS App: „Fill Visualisation Dummy“



The ETS App „Fill Visualisation Dummy“ supports the user to make group addresses available in the ETS4 which are used in a visualisation. Is an address used in a visualisation and not known in the filter table of the related line? The App will add a dummy device to ETS4 and the

corresponding group address to the dummy device. The ETS App uses the common csv format and is able to read direct from the project data of the visualisation software Elvis 3.

Contact: www.it-gmbh.de



New Members

SWITZERLAND

Adiutec AG



Adiutec AG is a specialist service provider for manufacturers and planners in building automation. The interdisciplinary team with years of experience in the industry offers extensive know-how and instant capacity expansion.

- Market research (qualitative / quantitative surveys)
- Usability and Requirements Engineering (Load and specifications)
- Coaching and Project Support
- Development services with BACnet, KNX, etc.
- Training

Due to the specific knowledge in room and building automation, Adiutec AG not only assists manufacturers, but also professional planners with demanding projects tasks such as design, tendering and expertise. This results in a unique proximity to the market, which benefits both manufacturers and designers. Adiutec AG is a member of key industry associations and is actively involved in training at various colleges.

Contact: www.adiutec.com

GERMANY

Agentilo GmbH



Agentilo GmbH, formerly ESF Software GmbH, develops software for home and building automation and remote control technology since 1990, both on request as for their own software products. Among other products, Agentilo develops the KNX Interworking Test Tool on behalf of KNX Association. The Agentilo visualisation is a

modular framework for multiple tasks in the fields of visualisation, security and control, which can be adjusted flexibly by scripts. The version 3.0 with HTML 5 – user interface for smartphones and tablets, iOS and Android, will be available soon in German and English.

Contact: <http://www.agentilo.com>

USA

BitWise Controls



BitWise Controls is a manufacturer that produces affordable whole home automation devices in USA with support partners in all European countries. With their BC1 and BC4X1 Pro automation controllers and template packages, they provide the easiest, most cost effective home automation option through smart devices available anywhere. Their professionally designed, fully customizable GUI templates can be easily altered to meet any need, such as adding custom activities for audio/video and KNX control.

- FREE app, no fees per device, no licensing fees, for “i” device interface and/or android
 - Easy add-on to existing systems with IR and/or bi-directional IP or RS232 ports
- Control pages are created in HTML. They can be displayed on any web enabled device (smartphones, touch screens, PCs, etc.) allowing users to choose what device they want to use for control.

Contact: www.bitwisecontrols.com

GERMANY

Data Design System GmbH



Since 1984 Data Design System GmbH (DDS) has been developing innovative software solutions for integrated electrical, HVAC and solar engineering. Beyond the classical application planning, the products of “DDS-CAD” contain the necessary calculating functions for every application and realize a complete project documentation. DDS-CAD is a powerful open-BIM solution and is compatible with open buildingSMART data standards. The interface equipment

includes 2-way interfaces to KNX software ETS3 and 4. DDS GmbH is part of the DDS ASA Corporation based in Norway. DDS Europe is the among the leading software companies in its segment. Craft, design offices, administrative buildings, industrial enterprises and educational institutions are among the typical customers of the company.

Contact: www.dds-cad.de

SWITZERLAND

DATEC electronic AG



DATEC ELECTRONIC AG, headquartered in Rüti, has been producing various electronic products for 30 years. Since April 2012, the company has had a subsidiary in Basel specializing in the development of KNX building automation solutions. Due to its location in the border triangle, they can provide services in Switzerland, Germany and France. But DATEC ELECTRONIC AG also operates in other countries. The

new team has already had many years of experience in the field of KNX device development in the areas of lighting control, HVAC, and shading. As a flexible company, they can develop new devices on customer request, and this for consultation, the idea of the first prototype to high volume.

Contact: www.datec.ch

PORTUGAL

Domatica –
Global Solutions, S.A.

DOMATICA- Global Solutions, S.A. was founded in September 2002 and is a privately held venture capital company. It is a manufacturer of engineering solutions with a focus on technological innovation. Its core business concentrates on monitoring and control of a wide range of applications, such as energy efficiency, home automation, building management, etc. The company has developed the KNX Server, an ultimate

controller tool for KNX. It is a DIN rail device for easily installation. It interfaces with KNXnet/IP and uses the iDom Project as a free software tool for programming and for system configuration. The software allows an instant integration of existing installations via Plug&Play.

Contact: www.domaticasolutions.com

SPAIN

Domotik



DOMOTIK is an engineering company dedicated to design and integration of KNX solutions for home and building automation. The majority of the already carried out installations cover all application areas of building automation. Domotik is known to offer optimal solutions to its customers, with quick response time and high involvement in projects. DOMOTIK participates in all

phases of a project, from initial design to implementation and commissioning, if required, in other parts of the installation too, depending on the automation system. Domotik is planning to develop new KNX compatible software and hardware.

Contact: www.domotik.cat

TURKEY

EAE Energy



EAE Group, which has distributors and authorized dealers in 41 countries, is a leading manufacturer of electrical products in Turkey with more than 1000 employees. EAE Energy is established as a member of the EAE Group to create and provide highest quality hardware and software products, services and solutions for building automation and management. Its ambition is to bring technology of the future to the building infrastructure, software and field equipment. Its aim is to create an energy

efficient, environmentally friendly and comfortable atmosphere in all kinds of buildings, with optimized investment and operational costs. EAE will provide expandable and interoperable solutions, fully customized to customer's needs, avoiding proprietary or closed system solutions. To this end, its first line of KNX modules and solutions will be introduced shortly to the KNX world.

Contact: www.eaeaydinlatma.com

USA

FieldServer Technologies



FieldServer Technologies is the major manufacturer of protocol gateways in the building automation industry. As a leader in interoperability, FieldServer gateways have been used to interface HVAC, lighting, security, fire alarms, boiler controls and more. With a protocol driver library of over 100 protocols, FieldServer is the gateway of choice to achieve the interoperability desired by today's building engineers and integrators. In addition to protocols such as Modbus, BACnet, Lon Works, Metasys

N2 by JCI, SNMP and EtherNet/IP, the FieldServer driver library has a wide range of proprietary and legacy protocols that enable the user to bring proven and trusted devices into a modern open protocol building management system. With the addition of KNX as the worldwide open standard of home and building control, FieldServer continues to be a worldwide leader in building automation interoperability.

Contact: www.fieldserver.com

GREECE

GDS Digital Systems Ltd.



GDS is well known in Greece and has dealt with KNX for more than 12 years. GDS has completed demanding and innovative projects in many countries. For some of them, GDS received a KNX Award. Since its foundation, it operates around the concept "One building – One System". GDS is always targeting energy savings and it is staffed with qualified energy engineers,

who are also hardware developers. This combination of know-how is GDS' advantage when developing products with energy saving as target. GDS will be concentrating on energy applications, smart presence detection, interfaces to other systems and configuration tools.

Contact: www.gds.com.gr

FRANCE

IDOM Concept



IDOM Concept is a software development company from France. The software, developed by IDOM, can manage all main KNX functions. IDOM software is compatible with iPhone, iPad, TabletPC, Android smartphones and tablets. Its user-friendly communication interface sets new standards of convenience - and practicality. The interactive remote control is easily customizable: the user only needs to assign the rooms and link them to command buttons (switching lights on and off, raising or lower-

ing shutters, changing the temperature in a room) or states (checking a temperature, status of lights, watching a house security camera, controlling access, ...) An internet connection is required to use all the application's features. The installers and system integrators can prepare or modify a setting and send it to the user. This is an optional extra feature.

Contact: www.idomconcept.eu

RUSSIA

iRidium Mobile Ltd.



iRidium mobile

iRidium Mobile Ltd. is a software development company particularly dedicated to automation and audio/video markets. The iRidium KNX application is a universal software tool enabling users to control their KNX and AV environment from devices running iOS, Android OS, Windows or Mac OS. iRidium for KNX is a large-scale application made especially for those who work with KNX and AV equipment. Main features are:

- easy and convenient group address import

from ETS

- iRidium GUI Editor for making amazing control interfaces
 - ready GUI templates
 - site license
 - possibility to control any AV equipment
- With iRidium visualization and communication capabilities, everything is under your control thanks to magnificent graphics and stable communication.

Contact: www.iridiummobile.net

FRANCE

Lifedomus



Created in 2009, the French company Lifedomus launched in early 2012 a home automation box, which is the most gifted of its generation. The brand new Lifedomus system has a revolutionary multi patented graphical user interface. Lifedomus is THE universal home automation system. Its "Design Studio" interface can be customized unbounded, by every user/installer. The usability and the graphical features can be adapted without programming code.

Lifedomus is also multi-protocol (including KNX), multi-users, multi-platforms (Windows, MacOS, iOS, Android) and multi-users (home automation and multimedia). Lifedomus enables all home automation applications : security, comfort, energetic analysis, multimedia, multi-room audio and video, universal remote control, ...

Contact: www.lifedomus.com

GERMANY

MTC maintronic GmbH



As a manufacturer of audio power amplifiers for fixed installations, MTC maintronic has built up an excellent reputation over the decades for sturdy and durable products. By joining KNX Association, maintronic expands their business of building management for audio, dimming and switching actuators in

the KNX world. The focus is increased on benefits through clever networking, rather than competition between different system environments.

Contact: www.maintronic.de

SWITZERLAND
nomos System AG



nomos is committed to redefining the home entertainment and control systems industry with a visionary solution that emphasizes ease of use, reliability and a maintenance-friendly open platform. nomos is a software product that is able to control hardware and software simultaneously and manages to bridge the long existing gap between hardware and software in the field of system integration. nomos develops a complete integrated control and multimedia solution. A software that delivers home automation

and control of multi-room audio/video equipment, advanced digital audio and video processing, flexible and scalable A/V switching, digital media server, security surveillance plus integrated applications and services. nomos now features a direct social media connection and is able to post any number of KNX alerts, information and camera images directly to your Facebook and Twitter account!

Contact: www.nomos-system.com

CHINA
Seyoung Electronics
(Guangzhou) Co., LTD.



Seyoung Electronics (Guangzhou) Co., LTD. is devoted to lighting control systems R&D, design and manufacturing. Its products are widely used in railway stations, stadiums, convention centers, shopping centers and villas. Until today Seyoung has completed more than 2000 intelligent lighting projects in China. The headquarters of Seyoung Electronics (Guangzhou) Co., LTD. are

based in Guangzhou. Seyoung has a large product and service capacity. To serve the customer better, it has set up seven regional offices. The focus of Seyoung is to achieve a balanced illumination control for lighting management systems, reliability, practical and economical use.

Contact: www.iisfree.com.cn

CHINA
Shenzhen Huayuan Display
Co.,LTD.



Established in 2009, Shenzhen Huayuan Display Co.,LTD is dedicated to the design, manufacturing and sales of terminal display products and has been following the KNX technology and products for two years. Huayuan also has strong production equipment, complete production lines and

professional engineers. Its factory is approx. 2000 square meters and has approx. 80 staff members. The annual sales volume is close to RMB50 million. The company's motto is "Participating, Achieving, Sharing".

Contact: www.huayuanlcd.com

AUSTRIA
Top Services



The company TOP Services was established in 1994 in Vienna and dealt initially with the installation of ISDN telephone systems and structured PC cabling. After a KNX enabled telephone system was introduced by one of their main suppliers, their business expanded to KNX bus installations. They are now busy with the perfect integration of telephone systems. They see themselves mainly as

providers of services for architects, electricians, etc. and strive to become system integrator for major manufacturers. In the future they plan to innovate KNX devices with an excellent price/performance ratio on the market.

Contact: www.top-services.at

UK
Tridium Europe Ltd.



Tridium, a global software and services company, develops and markets a universal software framework targeted at solving the challenges associated with managing smart devices. Software frameworks provide a platform to allow companies to build their product offerings in an easier way. Tridium's core technology, the patented Niagara Framework®, a Java-based framework, provides a software infrastructure to integrate diverse systems and devices – regardless of manufacturer or communication protocol-

into a unified platform that can be easily managed in real time over the internet using a standard web browser. Today, there are over 300,000 instances of Niagara worldwide in applications that include: energy management, building automation, telecommunications, automation security, M2M, lighting control, maintenance repair operations (MRO), service bureaus and total facilities management.

Contact: www.tridiumeuropa.com

BELGIUM
Vantage EMEA nv



For over 25 years, Vantage has been a leading manufacturer of home automation for residential and commercial applications. Vantage offers powerful means to integrate all facility functions into one central system that can be pre-programmed to be activated according to a schedule, sensor, a button, a touchscreen, a smartphone, ... All imaginable systems, such as heating, lighting, audio, video, alarm systems and more, are subtly integrated to form a single system, enabling the entire environment to adapt

to the residents' daily routines. The Vantage KNX InterfacePoint makes it easy to integrate KNX systems into the Vantage Infusion System. The configuration is done within the Vantage Infusion Design Center software as well as in the ETS software. The Vantage KNX InterfacePoint supports up to 250 Group Objects (DataPoints) and ten simultaneous client IP connections.

Contact: www.vantage-emea.com

GERMANY
Viatron GmbH



VIATRON GmbH offers the solution for audio distribution in different zones of the building – in the private residence or in the office building. The NF-Autrix has four inputs (RCA) for media players such as computers, MP3, DVD players, etc. and re-routes the sound to up to eight speaker outputs (low impedance) – modular expansion for larger projects. The amplifier outputs (stereo) are independently controlled via

KNX (volume, routing, sound settings, presets ...). The operation may also be on the device with a keyboard on the front side or by using the supplied Windows software on a PC. Besides lighting, heating and blinds, you can now easily control music throughout the whole building with the KNX Technology.

Contact: www.viatron.de

GERMANY
Visam GmbH



VISAM GmbH has been working in the field of automation technology for more than 20 years and specializes in the area of control and monitoring. VISAM is a developer of the visual processing and process control system VisAM HMI / SCADA and on HMI based devices for industrial and building automation. The system works manufacturer independent and is compatible with bus and remote systems by, of course, using

KNX! The functionality and user interface of the operating units and the visualisation are freely programmable and adjustable to 100% of the users' needs. VisAM is suitable for example, for scenario and access control, alarm and message detector, and for the recording of fuel consumption and operating hours.

Contact: www.visam.de

New KNX Products

ABB Stotz-Kontakt GmbH

New ABB i-bus KNX Energy Module EM/S 3.16.1



The new ABB i-bus KNX Energy Module EM/S 3.16.1 enables a detailed analysis of the energy consumption of all electrical consumers in a building, which are controlled via KNX. For each of the three channels the active power, current and voltage as well as further electrical values (apparent power, reactive power, crest factor, power factor and frequency) can be measured. The measured values are made available via KNX. They can be monitored with threshold values. Should an overshoot or undershoot of a defined threshold occur, a warning telegram can be sent and an assigned load can be switched.

Contact: www.abb.com/knx

ABB Stotz-Kontakt GmbH

New Fan Coil-Actuator, 0...10 V FCA/S 1.2.2.1



With the new fan coil actuator, ABB completes its product range for room climate control with fan coil units. The FCA/S 1.2.2.1 is a device to control two, three or four pipe fan coil systems in KNX installations. The device offers all necessary control outputs for the fan, the heating and cooling valves and an optional heating resistance. Additionally there are three inputs for signal contacts, e.g. to monitor window contact and drip tray. The polling voltage for the inputs is provided by the device. The FCA/S 1.2.2.1 controls two analogue outputs, using an analogue control signal of 0...10 V for the heating and cooling valves. The fan coil actuator receives its control value from the KNX bus, e.g. from a room thermostat. The coil actuator triggers a 3-stage fan motor via three contacts.

Contact: www.abb.com/knx

Agentilo GmbH

Agentilo Visualization 3.0



Highlight of the new Agentilo Visualization 3.0 is the possibility to create a visualization project once and then use the one project for multiple target platforms, such as PC or HTML5 capable devices. In this way smartphones and tablets are seamlessly integrated into the Agentilo system. Furthermore the Agentilo visualization provides:

- visualization/monitoring of consumption
- flexible connection to KNX, OPC, and an integrated environment for the development of process connections with scripts.
- visualization and control of lighting, heating, ventilation and air conditioning, shutters and multimedia equipment
- calendar program, user administration, logbook and much more

Contact: www.agentilo.com

Apricum d.o.o.

New line coupler



The new line coupler from Apricum is the first line coupler able to handle telegrams of up to 250 bytes and which can temporarily disable filtering of messages by pressing a button, making commissioning of the system easier. The temporary access to other lines is possible without prior download from ETS. In addition, LEDs on the device indicate a faulty communication on the bus. The line-/backbone coupler provides a data connection between two separate KNX bus lines and also galvanically separates the bus lines from each other. It can be used as line coupler, backbone coupler or repeater in any KNX network. Also available as OEM version.

Contact: www.apricum.com

b.a.b.-technologie GmbH

eibPort V3 Even more possibilities



At light+building, b.a.b.-technologie presented more innovations for its eibPort. Beside the optional GSM module for internet connection or as fall back solution, the device has by default 4 S0 -interfaces and a I-Wire connection. In combination with EnOcean, KNX and Powernet KNX, meanwhile eight variants are on offer. The software has also been further developed. In addition to the new innovative Cube Vision and Dali monitor, a room temperature controller function is integrated. With this, b.a.b.-technologie offers customers an instrument to respond to their different needs.

Contact: www.bab-tec.de

b.a.b.-technologie GmbH

Next generation Touch Panels



With its Intel Atom 1,6 GHz Dual Core, the new Touch Panel DP 3.0 is more powerful, while consuming even less energy. Due to the new mounting technique, the panels only need to be clipped in. At the lower end, the panels can be opened for easy cable connection without having to remove the whole panel. For more ease of use, variants with capacitive touch and full glass surface (no frame) are available. For attractive and flush mounted wall fitting, a special installation kit is available.

Contact: www.bab-tec.de

B.E.G. Brück Electronic GmbH
PDIN-KNX-FC



The PDIN-KNX-FC 92508 is the new B.E.G. KNX occupancy detector with an almost square sized detection area and a new case design. With its range reach of 7.5 m x 7.5 m, it is well suited for use in offices. PDIN-KNX-FC is conceived for the installation in false ceilings and offers the known B.E.G. application possibilities like the light dependent regulation of lighting or time-delayed controlling of heating systems, air conditioning or ventilation systems. A simple integration is guaranteed by the integrated bus coupler.

Contact: www.beg-luxomat.com

Berker
Berker IOS



Mobile access to Berker IOS is now possible via an iPad app. The app can be downloaded from the App Store by entering the search term 'Berker' and is subject to a licence fee. It allows you to view all active functions and gives you access to the building control system. Users can easily personalize their display and a search function quickly helps you find individual consumers, device groups or categories. The app works on the premises and outside from any location with network coverage. On the premises, the app communicates securely via WLAN.

Contact: www.berker.com

Busch-Jaeger Elektro GmbH
Busch-ComfortTouch®
now available in two versions



With the further developed Busch-ComfortTouch®, Busch-Jaeger introduces the new dimension of building control. The new generation comes in two sizes: with a screen size of 22.86 cm (9") and – brand new – with an impressive 30.73 cm (12.1") large format screen. Both models share a new control concept, which introduces the gesture control already familiar for smartphone and tablet computer users. With Busch-ComfortTouch® the limitations between building system technology, home entertainment and IP-based communication have been removed, as it not only enables building control, but also is an information and entertainment center.

Contact: www.busch-jaeger.de

B.E.G. Brück Electronic GmbH
PD9-DIM-KNX-GH



The new PD9-DIM-KNX-GH 92438 has been developed for special applications, where inconspicuous occupancy detectors are to be installed at great mounting heights. With its special lens, the PD9-DIM-KNX-GH can even detect movements at 10m height in an area of 6m x 6m. Therefore it is ideally suitable for integration in light rows in aisles of store houses. The optional 180° cover in this case prevents that movements are detected in the crossway. The device can be used to control lighting facilities or ventilation systems or to simply announce presence. The bus coupler is integrated for easier configuration.

Contact: www.beg-luxomat.com

Bitwise Controls
KNX-bwc" Gateway



iPad and iPhone are used more and more for visualization of KNX installations. This gateway allows together with the cascable bitwise controls BC4X1 controller (5 IR, IP and RS232 interface for AV control) to use one common application for KNX and audio/video systems. Create your personalized user interface with a powerful, full-graphic editor! With one touch the Home Theater starts, lights are dimmed and shutters are closed. Select songs from your music library (Squeeze, WMC...), include the pictures of your IP cams and unlock your house door – at an extremely low price / performance ratio.

Contact: www.bitwisecontrols.com

Busch-Jaeger Elektro GmbH
Busch-ComfortTouch App
mobilizes building automation



Busch-ComfortTouch App brings building automation of Busch-Jaeger to the smartphone and tablet computer. In conjunction with the Busch-ComfortTouch®, these portable clients become convenient remote controls for most functions of building automation. Remote control is also possible over the home WLAN network and, from further afield, over the Internet. In this way, the Busch-ComfortTouch App, which can be downloaded from the major app stores, gives access to a broad range of configuration and personalisation options.

Contact: www.busch-jaeger.de

CONTROLtronic GmbH
KNX Power Supply 160mA



The new KNX power supply with 160mA optimally complements the company's range of KNX power supplies. Due to a wide range input 100-240V AC the power supplies are useable worldwide. LEDs indicate Operation, Overload and Reset. A special button initiates an automatic reset of the KNX line. An additional ancillary voltage output of 30V DC is available. Outputs are short circuit protected. With the versions 160mA, 320mA and 640mA, a full product range of KNX power supplies of the highest quality for a very attractive price performance ratio is now available.

Contact: www.controltronic.com

Crestron International
Touch-Screen TPCS-4SM



The TPCS-4SM, Crestron's new 4.3 inch touch screen, has an integrated control system, which connects with all KNX systems. From the TPCS-4SM, you can control anything you want: manage your audio and video, control your lighting, climate control and even your curtains. You can also use your iPad, iPod or Android device. Because the touch screen fits into a standard European backbox, it can be placed into any room in your house or office. With RoomView, Crestron's software application, you are able to remotely book and manage every room in your company.

Contact: www.crestron.eu

Dialogic Systems
New: "HomeCockpit Major Hard-Tip" multi-touch panel PC



Switch on and relax! Thanks to its new capacitive glass touch screen, the HomeCockpit Excelsior is now even easier to use. You can control all main multimedia functions in your home at the tip of your finger on the innovative touch panel PC – starting with visualization, video voice systems and camera control via HD TV/radio, internet, email, telephone and multi-room audio/video and any Windows software. A truly multitalented system for demanding users – featuring a seamless frame with a personalized look and other options.

Contact: www.home-cockpit.de/major

CONTROLtronic GmbH
KNX Glass Touch Sensor with Card Switch



KNX glass sensor in real glass with two capacitive touch sensor areas to operate DND (Do-Not-Disturb) and MUR (Make-Up Room) indication. Integrated card holder to detect room occupancy and illuminated CARD letters with arrows as orientation when entering the room. LED illumination with variable intensity and integrated brightness sensor for measuring ambient light and automatic adjustment of brightness. Tone with adjustable volume for touch confirmation and additional alarm function. With integrated KNX bus coupler. Different types of glass KNX sensors complete the product range for hotel room automation.

Contact: www.controltronic.com

Dialogic Systems
New: "HomeCockpit Excelsior Hard-Tip" multi-touch panel PC



Get in touch with the future! Thanks to its capacitive glass display, the HomeCockpit Excelsior is now even more efficient to use. All you need is a few finger tips to experience a whole new world of IT performance, video voice systems, camera control, HD TV/radio, internet, email, telephone and the visualization and control of building automation systems, multi-room audio/video and other Windows software with this superb touch panel PC. The ultimate solution for all high-end users – featuring a seamless frame with an individual design and lots of other extras.

Contact: www.home-cockpit.de/excelsior

Dinuy S.A.
4-Channels Push Button Interface



DINUY introduces its new KNX product range. One of these new products is a four channel binary input transmitter: EM KNT 001. This interface has four independent channel, which can be used as inputs or outputs, depending on the settings. The four independent binary inputs for potential-free contacts can be used in conjunction with a conventional push button or switch to send switching, dimming, blind/shutter control or light scene selector telegrams. Besides, the four channels can also be used as outputs for controlling up to four independent LEDs as status indication.

Contact: www.dinuy.com

Dinuy S.A.

I-Channel Universal Dimmer



DINUY launches a new universal KNX dimming actuator. Leading and trailing edge dimmer. The RE KNT 000 can be used for different types of loads: incandescent lamps, 230V halogen lamps, LV halogen lamps, 230V~ or 12V~ dimmable LED lamps and dimmable compact fluorescent lamps. Its advanced electronic design allows you to control up to 1000W by only one channel. Besides switching and dimming lamps, it is also possible to save and restore up to eight lighting scenes. Protected against overload, short-circuit and overheating. DIN rail Mounting. Integrated Bus coupling unit. Parameters adjustable via ETS: switch-on value, light scenes, soft-start function, brightness, cyclic function, ...

Contact: www.dinuy.com

Divus

KNX Server



The DIVUS KNX SERVER is a scalable visualization system (from the basic visualization on mobile devices up to sophisticated full graphical visualizations) in DIN RAIL housing. Using a software code, the basic server can be extended with more functions. In the cost-effective basic version, mobile devices (iOS, Android) and DIVUS TOUCHZONE are supported. If more functionality is desired (medium-large houses/villas or small-large commercial properties: offices, shops, factories...), one can opt for the HOME or ADVANCED SERVER. These server options offer a lot more features, group addresses, timers, logics and scenarios, extending the visualization possibilities.

Contact: www.divus.eu

Divus

new Divus optima interface



The new DIVUS OPTIMA interface, the front end to the KNX SERVER, enables you to manage your building reliably and efficiently. Beginners feel as comfortable as experienced users in creating a building visualization with DIVUS OPTIMA. As a basis for the system, the ETS project (ETS3/ETS4) can be imported into the KNX CONTROL device, thus allowing the creation of all group addresses and their icons. Rooms are defined and their operating elements are either automatically assigned to a grid or can be dragged to the background image. The navigation view is automatically created at the same time.

Contact: www.divus.eu

easyMOBIZ mobile IT solutions GmbH

ayControl KNX for smart HOTELS



How smart is your hotel? A well-established feature of classy modern homes is about to conquer hotels, offices and smart apartment buildings. With solutions specifically targeted to smart hotels and condominiums, ayControl KNX offers new interesting applications. It's so easy to control lights, HVAC, multimedia and more via iPhone / iPad or Android. The UI of ayControl version 3 can also be modified to fit the design of your clients. ayControl for hotels and condos is easy to use and delivers unbeatable value-for-money. In contrast to classic panels, iPad and Android devices offer internet access and access to music and film collections, which certainly makes hearts beat faster.

Contact: www.ayControl.com

Domatica – Global Solutions, S.A.

KNX Server – KNX Reinvented



The KNX Server is the ultimate controller tool for the KNX protocol. It allows communication between KNX/IP networks and other systems like ZigBee, ModBus, Dali, DMX, iDom and X-10, simultaneously. It includes a free of charge and powerful software tool for complex and logic programming, including an unlimited scenario builder. With Plug&Play features it's possible to download Home Automation Applications from the App Store™ or Google Play™, ready-to-use, without any extra configuration. It also provides a free API for programmers that want to develop in Windows, Linux, iOS or Android.

Contact: www.knxserver.com

easyMOBIZ mobile IT solutions GmbH

ayControl V3: Trendy design, scenes, logic & more



Again three steps ahead, that's the motto of ayControl KNX version 3. It brings plenty of innovations and a trendy user interface. Next to iPhone / iPad, Android is now also supported. Use cost efficient devices like Google Nexus 7, Kindle Fire and others to control KNX, multimedia and more. Profit from the new logic and scene functions (called easyScenes)! Users can intuitively store, name and recall their individual scenes. With the smart integration of (SIP), door stations not only show a video image, when a visitor rings, visitors in front of the door can even be addressed. There is no need for a server and it works perfectly, whether at home or thousands of kilometers away!

Contact: www.ayControl.com

eelectron srl

**MB40C ICKNX-WH KNX
MiniPad 4 Channels + 4 In-
puts + Temperature Sensor**

eelectron enters the residential world with the eelecta range, fully based on KNX. The range consists of KNX HomePads, MiniPads, Touch panel and socket frames. It has won some prestigious design awards such as Red Dot, Design Plus and Interior Innovation. MiniPad is available in three colors and can be customized for a project. It is now also available in a new dimension of 90 mm x 90 mm. eelecta's MiniPad features a central cross, and the product can be customized with different finishing. The front has five LED status indicators freely configurable by ETS, one for each button channel plus the corner led useful for night localization. The MiniPad is available with four or eight channels, with or without temperature sensor, with or without four rear free inputs.

Contact: www.eelectron.com

eelectron srl

**IO44E0 IKNX – UNIVERSAL
MODULE 4 IN / 4 OUT**

The DIN RAIL 4 Input / 4 Output Module IO44E0 IKNX is a KNX DIN rail mounting device to interface command equipment or switch loads for any kind of application. The device is equipped with four binary inputs (potential free) and four binary relay outputs. Inputs can be connected to conventional switching devices, e.g. push buttons, switches, floating contacts, for switching functions with pulse edge evaluation (e.g. rising or falling edge, toggle...). Inputs can be configured with ETS, as output to drive LEDs. Inputs can be used for on/off commands, dimming, shutter control, scene recall and control as well; outputs include switching functions, scene recall and control logic functions. The four outputs are configurable.

Contact: www.eelectron.com

Eissound

KNX Interface for KBSound

KBSound® iSelect is a radio kit with FM/DAB. When it is integrated with the wireless accessory Kbsound Dock, the user can listen to the music stored in his iPhone/iPod or from any other external sound device. The KNX interface for KBSound® iSelect and Dock allows integration of this new sound system with KNX, converting an audio system based on kits into a multiroom solution. The KNX object table allows the system to be controlled from any KNX controller. One can thus manage and know the state of such parameters as volume, bass, treble, balance, loudness and FM/DAB station as well as iPhone/iPod data (song title, artist and album).

Contact: www.eissound.com

Elsner Elektronik GmbH

Corlo Touch

Thanks to the touch sensitive surface, the display Corlo Touch can be used as a normal switch. At the same time, Corlo Touch is an operation unit for automatic sun shading, ventilation and room temperature control. The shiny glass touch display reacts fast and is ready for commands even if in energy saving mode: A sensor registers your approach and switches on the device even before you touch it. The chrome-plated frame and the adjustable LED ambient light make Corlo Touch adapt perfectly to high-class interiors. Besides via KNX, data can be fed to the device via Mini SD card and USB. The LAN version can show websites or any other IP network data and visualise the screen on a smartphone.

Contact: www.elsner-elektronik.de

Elsner Elektronik GmbH

**Power Supply Unit
with USB Interface**

The KNX PS640+USB unites a power supply and USB interface in one device. It delivers a 29 V bus voltage for 640 mA and a 24 V DC supply voltage for 150 mA. The USB slot for easy bus access is integrated into the front of the DIN-rail mounted unit. A display and buttons allow for e.g. an area reset at the device. Special operating conditions (such as short circuit) and the present current consumption can be read from the display. All operating data and malfunctions are additionally sent on the bus. On an appropriate command from the bus, the KNX PS640+USB will execute a permanent or a time limited reset of a line, main line or of an area.

Contact: www.elsner-elektronik.de

Esylux

**New version of PD-C I 80i
KNX Wall-presence detector**

The PD-C I 80i KNX with integrated bus coupler is optimally suited for presence dependent light control. It is now available in further country specific versions. The product range has been expanded with the full versions (switching / dimming / twilight switch / 180° detection range / programmable detect ion range of sensors) for Denmark and Switzerland. In addition to the full version PD-C I 80i KNX the ECO version PD-C I 80i KNX ECO (switching) is now also available in the two country specific mounting variants CH and DK. Several in/outputs, e.g. external light sensor, sensor key, HVAC, twilight switch and acoustic sensor show its universal applicability.

Contact: www.esylux.com

Exor International S.p.A.
DomiOP eBIS507



The DomiOP eBIS507 is a KNX control combining state-of-the-art features and top performance with an outstanding design. It is the ideal choice for all demanding HMI applications in building automation and meets the needs of remote monitoring, scene programming for comfortable living and scheduler/timed actions. The eBIS507 features a bright 7" widescreen TFT display, LED backlight and support for 64K colors. The two built-in dual 100Mb Ethernet interfaces with switch function enhance its communication capability. The product has been designed for wall mounting. JMobile, Exor International's software platform for real-time monitoring and seamless remote access, completes the eBIS507.

Contact: www.exorint.net

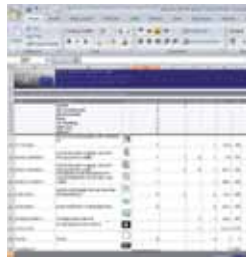
FS Cables
KNX Certified One Pair Cable Now in Stock at FS Cables



KNX member FS Cables has added the KNX certified one pair cable to its KNX range. Similar in construction to the standard 2 x 2 x 0.8mm, the one pair version features a single twisted solid conductor pair with a foil screen in a green low smoke halogen free (LSHF) jacket. The cable benefits from being smaller, lighter and offers savings on both space and containment. As a LSHF cable, it is also suitable for installations in public buildings where fire safety is paramount. The one pair cable complements the existing range of KNX certified cables stocked by FS Cables including the standard two pair cable in standard green or white, and duct grade or armoured versions for external applications.

Contact: www.fscables.com/knx

GDS Digital Systems Ltd.
KNX Configurator



KNX CONFIGURATOR is a web engine, helping each end consumer or system integrator to get the "best match" offer for his smart buildings based on KNX. KNX Configurator guarantees the best match of available devices for distribution boards and push buttons with respect to the specifications provided by the user, device features and costs. This smart search engine is free of charge. Users have only to log into gds-eshop.com, and they can use it for free. Moreover, it is so easy, simple, and intuitive that even an end consumer can use it.

Contact: www.gds.com.gr

Gepro
KNX-TAB 15 with key switch



15 control buttons, integrated buzzer and key switch (available in different versions) are offered as part of the new KNX panel. Ideal comfort is provided by easy programming without plug-in and fast download time. The key switch is freely programmable by ETS – just like any of the buttons/LEDs – and can block the buttons of the panel as well as send its own state after bus voltage recovery. The key switch can send two different group addresses when activated. The flat dimension of the rear cover is new as well. The device is directly connected to KNX and requires no ancillary power.

Contact: www.knx-taster.de

Gewiss S.p.A.
Chorus KNX heating and air conditioning control



GEWISS introduces a new range of KNX products dedicated to heating, fan coil and air conditioning control. This range includes a timed thermostat with FSC display (three modules), a thermostat with FSC display (two modules) and an individual room thermostat (one module) that can be combined to control different temperature zones. Every product can also act as a KNX binary input and can be connected to an external temperature probe. All products are available in three colors (black, white, titanium), installed in Italian standard flush mounting boxes and can be completed with Chorus range plates. Products are available in System and Easy-Mode versions.

Contact: www.gewiss.com

Gira
Standard/Comfort KNX presence detector



The Gira Comfort KNX presence detector is a flush-mounted device with integrated bus coupler. A surface-mounted ring is optionally available for surface-mounted installation. The watchful eye is characterized by a high sensitivity and a wide range. The detection range is 360° via 3 PIR sensors, which can be separately evaluated. Depending on whether the "Standard" or "Comfort" variant is used, brightness control can be set for ideal lighting in the room. Additionally, seven individually configurable function blocks for various operating modes are included – from the presence detector to the brightness sensor with limit value monitoring.

Contact: www.gira.de

Griesser electronic AG

Integrated Weather Station



The new EMX-8 Weather Station offers a lot in a small package: proven Griesser functions, the right sensor technology and easy handling for eight facades. The key features:

Sensor Technology:

- 4x Brightness incl. twilight
- Global radiation
- Temperature
- Wind speed
- Precipitation (heated)
- Position and time (via GPS)

Automatic Functions:

- Brightness and energy influx
- Solar tracking
- Horizon limitation
- Wind, rain and frost protection
- Automatic timer
- Twilight function
- Logic function

Ets Application:

- eight Individual sectors
- Select automatic per sector
- Sensor settings
- Diagnostic function
- Simulation mode
- Copy function

Contact: www.griesser.ch

Hager

tebis KNX presence detector fittings



Hager offers three built-in tebis KNX presence detectors: the TCC520 with integrated KNX output, the TCC521 with DALI output and constant lighting control and the TCC510S. All devices have a useful control panel behind a front cover, which can be accessed even if the device is mounted and without the need to dismantle it. Alternatively, adjustments can also be made by remote control. The Hager EE807 remote control allows the electrical craftsman to adjust various parameters such as brightness, time delay or presence detection. The Hager EE808 remote control is intended for the end user.

Contact: www.hagergroup.net

Guangzhou Hedong Electronic Co., Ltd (HDL)

Blinds/Shutter series



The HDL blinds/shutter control series include three types: M/W02.10.1(2CH), M/W04.10.1(4CH) and M/W06.10.1(6CH). They basically have the following functions: blinds and common shutter control, status response, status on power down/up, alarm control, scene control, sun automatic control, percent control, safety, limit, priority and so on. The HDL KNX Blinds outputs module can be used in a variety of applications such as apartments, villa's, public area's, hotels and many other areas.

Contact: www.hdlchina.com

Guangzhou Hedong Electronic Co.,Ltd (HDL)

Sensor (M/HSIU05.1)



HDL KNX-M/HSIU05.1 includes four independent logic blocks and 1 combined logic block. Each logic block can be combined with the state of the ultrasonic sensor, motion sense, illumination, temperature, external condition. The requested function can be realized as AND or OR. When the logic condition is set each logic block can control ten targets at the same time. Both Open-Delay and Close-Delay are available for each of the functions. The sensor can be configured in master mode; can report the current status of every condition, in order to adapt to different requirements.

Contact: www.hdlchina.com

HEP Tech CO., Ltd.

Dimmable KNX Intelligent Control Gear SCX114-58 UNI



HEP's dimmable KNX control gear SCX114-58 UNI for fluorescent lamps sets new standards of installation convenience. Only one single ballast is required for T5/T5HO/T8/TC-L/TC-F from 14 to 58W. The control gear meets the highest energy efficiency requirements of EEI = A1 BAT with a power consumption of only 0.25W at 230V during stand-by. Outstanding features like feedback on energy consumption at full dimming range from 1~100%, lamp operating time, overheat and lamp/ballast malfunction as well as the possibility of setting dimming times/levels and assigning the device to different scenes, ensure a higher level of lighting control.

Contact: www.HEPgroup.net

Home Systems Consulting SpA

HSYCO 3.1



HSYCO is a Web based pure HTML5 supervision server for the development of integrated control systems for KNX and many other standard and proprietary environments. The new 3.1 version of HSYCO brings many new features:

- advanced multi-language text-to-speech and audio messaging. Messages can be routed to AXIS cameras, SNOM VoIP phones, the line-out of the server or to the Web browser
- improved scheduler and data logger
- BACnet support for flexible and highly customized integrations between BACnet and KNX environments

Contact: www.homesystemsconsulting.com

**iKNiX
proServ**



iKNiX brings you the new iPhone/iPad gateway (Android under preparation): proServ. It offers a complete visualization for the most common smart phones COMPLETELY designed and programmed in ETS – no additional software/editor needed. Import the ETS database application into ETS, choose from 1 up to 18 rooms and add up to 16 functions (lights, blinds, aux, RGB LED, alarm and status info, URL schemes, etc.), heating control and weather info to each individual room. After programming proServ, start the FREE App (iKNiX / iKNiX HD), which will auto-detect the gateway and ask for a code (if you set one), done. No license fees, ten users at the same time, free RTI driver, full-fledged ETS programming gateway!

Contact: www.iknix.com

**Intesis Software s.l.
New IntesisBox® KNX –
Mitsubishi Heavy Industries
AC gateway**



Intesis presents its new gateway IntesisBox® MH-AC-KNX-48/128 for integrating Mitsubishi Heavy Industries air conditioning into a KNX system. The gateway has direct connection to KNX on the one side and to the Superlink® network of MHI on the other one. It is available in two versions, one controlling up to 48 indoor units and another one up to 128, both allowing control and monitoring of every single indoor unit separately and also all of them at the same time. The IntesisBox® MH-AC-KNX-48/128 setup is performed in a very easy and fast way by using the LinkBoxEIB software, which includes a specific demo project in order to help with the integration.

Contact: www.intesis.com

**Jung
KNX Facility Pilot Server**



The new rail mounted PC in the JUNG KNX system: Fanless and without mechanical parts, the unit is equipped with the pre-installed Facility Pilot software. Thus the Facility Pilot Server is used as the centre for controlling and visualising the building technology via mobile terminals or PC clients. The internal KNX data interface can be used to connect the KNX system without requiring any additional hardware. A second KNX data interface is used for remote maintenance. The benefit of using only one software package that includes the option of implementing other process terminals in addition to KNX provides optimal flexibility.

Contact: www.jung.de

**Intesis Software s.l.
New IntesisBox® KNX -
EnOcean bidirectional gateway**



Intesis introduces its brand new IBOX-KNX-ENO-AI / AIC, a very powerful gateway that connects both KNX and EnOcean technologies in a bidirectional way. Supporting up to 253 communication objects and 32 simultaneous device types (channels) this gateway merges the KNX power with the EnOcean versatility. The setup is done by using a very easy and for intuitive ETS plugin, without the need of any other external software. Importing an XML file allows adding new EnOcean devices to the gateway without the need to change its firmware or database. Also the implemented LCD display allows to teach/learn and erase EnOcean devices and also shows useful information for the integrator.

Contact: www.intesis.com

**IPAS GmbH
IPAS ComBridge HCC**



ComBridge Home Control Center (HCC) is a visualisation controller especially developed for use in small and medium-sized buildings. It offers a graphical visualisation that can be used with any Internet browser. Up to 250 KNX objects can be visualised with the HCC. The group address configuration is done via ETS. No additional software is required for the web page design. The ComBridge Editor is already installed on the HCC and can be opened with any internet browser. But the ComBridge HCC can do a lot more: scheduling, scenes, events and complete logic functions, as well as alarms and e-mail.

Contact: www.ipas-products.com

**Jung
KNX Facility Pilot Navigator**



An innovative design tool that interfaces to JUNG Facility-Pilot: When creating a KNX project, the goal should be to create a logical structure of complex content as a basis for easy operation. The Facility Pilot Navigator provides an easy-to-use tool to achieve this goal. Moreover, the software converts the configured project into the uniform JUNG user interface. In this way, the KNX features can be intuitively controlled using a Smart Pilot touch screen. Additional benefit: once created, a project can be duplicated and used for other Smart Pilots.

Contact: www.jung.de

Legrand

New Lightrak Lighting Control Unit



Legrand has enhanced the appeal of its Lightrak lighting control units by launching a new version that combines its unique plug and play capability with the ability to control and receive feedback from DALI luminaires over KNX. The new system boasts unrivalled speed of installation and future flexibility, and has the added advantage of operating from Lightrak's unique backbone, Buscom – a system that distributes both power and KNX in a single trunking solution. The units simply snap-on and plug-in at any point along the Buscom backbone, instantly providing a full DALI control hub that can control multiple luminaires – all of which is achieved without the need for additional power or communication cables.

Contact: www.legrand.co.uk

MDT Technologies GmbH

BE-GT04/08 Glass Push Button 4/8-fold, with temp. Sensor



The MDT Glass Push Buttons in modern design with white or black glass have four or eight sensor areas, a surrounding orientation light and a bicolored (white/red) LED for each sensor area. Brightness of LEDs and orientation light can be set individually, e.g. dark during the night, bright during the day or bright if the sensor area is touched and red or red blinking to indicate an open door or error message. Sensor areas can be parameterized for one or two button operation. For individual marking, one can insert a laser printed labeling film sideways behind the glass front. The BCU is integrated. The Glass Push Buttons are optionally available with room temperature sensor.

Contact: www.mdt.de

NETxAutomation Software GmbH

NETx Voyager Visualization 5.0



A high-end-visualization with comprehensive functionality for a central management of projects of any size. Create projects for platforms like Windows PCs or any other web-based Smart-Clients, as well as Android or iOS-platforms. Some highlights:

- extended and animated graphics
- MaRS (Metering and Reporting System) module integrated
- integrated event processor

With the new MaRS-module, consumption values and costs of different resources (e.g. electricity, water, heat) can be visualized in real-time graphically and in tables. Exports (Excel, PDF) are possible directly out of the visualization too.

Contact: www.netxautomation.com

MDT Technologies GmbH

AKU-1616.01 16 ch 16A Universal Actuator for blinds and switching



The new Universal Actuators with monostable relays can be used as 16A Switch Actuator (max. 16-fold) or Shutter Actuator (max. 8-fold). Mixed applications from Switch- and Shutter Actuator are possible. The size of the Actuator is 8SU, it can be operated manually and has an LED indicator for each channel. The extensive application includes all standard functions for both operating modes. Additionally it includes an extended automatic function for sun protection with 1bit telegrams or/and a fixed position when the window is tilted. Absolute positions provided received via a weather station can be blocked during manual movement and be released automatically in upper position.

Contact: www.mdt.de

Merten

New Switch Actuators



The new Basic Switch Actuators REG-K by Merten switch up to 12 consumers at a load of 16 ampere, which makes them ready for use in private and commercial buildings. All 230 V switching outputs can be manually operated. The devices have an integrated bus coupler. In accordance with EN 60715, the Basic Switch Actuators are installed on top-hat rails TH35. The included software application provides essential functionalities like a staircase lighting function with pre-warning switch-off, active feedback and logical functions.

Contact: www.merten.de

NETxAutomation Software GmbH

NETx Voyager BMS Server 2.0



This Server offers flexible solutions for medium and large projects. It allows integration of different application domains like lighting, shading and HVAC in a reliable, central building management system. Some highlights:

- modular interfaces to alien systems
- integrated database for recording of history data
- the script engine allows advanced control- and management-functionality
- integrated webserver for web-based visualizations
- central management of Smart-Clients and visualization projects

The optimized solution for a building management for highest expectations!

Contact: www.netxautomation.com

preussen automation

10A switch actuators for KNX

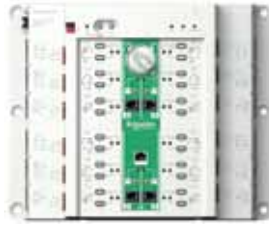


preussen automation is expanding its product portfolio and introduced a series of ten ampere switching actuators. The KNX actuators are available with four, eight or twelve channels. The maximum load per channel is ten amps. The actuators can be used for controlling opening and closing functions. It's possible to use the device as a blind and heating actuator as well as for logic or timing functions, like staircase lighting.

Contact: www.preussen-automation.eu

Schneider Electric

Roombox



Schneider Electric simplifies the distribution of energy in office buildings: the new Schneider Electric Roombox controls the three main areas of electrical installation in a building – lighting, blind/shutter control and everything related to heating, ventilation and air conditioning (HVAC). The Roombox allows individual settings in single offices, equipping conference rooms with numerous features as well as quick and easy set-up of open-plan offices. Compared to convenient installation, the number of power supply and connection lines is reduced by 30 to 60 percent.

Contact: www.schneider-electric.com

Siemens AG

Power supplies N 125/x2



The new range comprises 160 mA, 320 mA, and 640 mA power supplies. All models use the same housing, enabling them to be easily exchanged or upgraded. Two 640 mA power supplies can be connected in parallel so that 1,280 mA are available to power up to 128 bus devices in one line. What's more, both power supplies can be installed in the same distribution board – without the need to observe a certain line distance. Thanks to their flexibility on the input voltage (AC and DC), the N 125/x2 can be used in plants equipped with a central battery for emergency operation.

Contact: www.siemens.com/gamma

Radiocrafts AS

USB stick with KNX-RF Multi wireless



The new RCI 180-KNX-USB stick from Radiocrafts contains a RF transceiver module, fitted inside a transparent plastic casing for visibility of embedded LEDs. The KNX RF Multi is an important new part of the KNX standard for improved RF reliability and enhanced radio link. The USB stick has the radio protocol for KNX-RF Multi, packet handler and all communication embedded inside the radio module. The KNX RF Multi USB stick gives quick access to wireless KNX-RF Multi. Display, gateways etc., which already have a USB port, can in this way be upgraded with wireless KNX-RF.

Contact: www.radiocrafts.com

Siemens AG

Room controller UP 204 Contouch



Intuitive operation is made possible via touchscreen and select-and-push knob. The menu pages in four different color designs can be individually adjusted using the ETS plugin. The product is programmed via KNX and a microSD card. A total of 18 functions can be defined for lighting, shading, scenes and text/alarm messages. The UP 204 Contouch comes with a built-in room temperature controller and a 7-day time switch. Six languages are available for naming the functions plus symbols for selection. The bus coupling unit with ancillary power can be installed in standard flush mounted installation boxes.

Contact: www.siemens.com/gamma

Siemens Schweiz AG

TP-UART 2 evaluation board



The TP-UART 2 evaluation board is the ideal solution for the development of new KNX devices based on the next generation KNX transceiver. The board offers a direct interface to the KNX bus as well as a Bus Transceiver Interface (BTI) with pins for direct access to the UART serial interface, the 5 V and 20 V supply output voltage as well as the SAVE and RESET signals. The TP-UART 2 KNX transceiver completes the portfolio of reliable, high-quality and certified components used by the wide majority of KNX manufacturers. It is digitally compatible with its predecessor.

Contact: www.siemens.com/gamma-b2b

Sinapsi srl
Equobox



EQUOBOX is a system that enables the metering of energy and other resources in a building, enabling also the allocation of running costs in conformity with UNI 10200 regulations. The system has a modular architecture and is designed to contain a wide range of devices able to communicate with the most common standard protocols such as M-BUS, KNX, ZigBee, RS485, impulse inputs. EQUOBOX is able to meter different sources of energy at the same time: electrical energy, thermal and refrigerating energy, etc. EQUOBOX is able to integrate energy metering with home and building automation systems, allowing the visualization of data collected on synoptic panels, displays and touch screens of domotic systems.

Contact: www.sinapsitech.it

Tci GmbH
amena70XS/XU



The 7" touch panel amena70XS enables web visualization of common controls such as CoDeSys, Siemens, Beck IPC, Wago, Beckhoff and others. The basis is a low cost ARM7 system with a directly adapted MicroBrowser. This stable and fast system offers an unbeatable value for money. The cable-free system design without fan and hard disk is very robust and durable. The design front frame can be selected in anodized aluminum or glass. The device variant amena70XU has an extremely flat system design with only 22mm depth. The rear connections allow installation in front of the wall in the standard flush box.

Contact: www.tci.de

Theben AG
Meteodata I40 GPS KNX weather station with anemometer



The new Meteodata I40 GPS KNX weather station from Theben has a lot to offer visually, in addition to brightness, wind, temperature and rain measurement: its transparent housing allows the colour of the facade to shine through and it fits in perfectly with any background. The robust anemometer ensures reliable measurement of wind speed; blinds and solar protection can be controlled independent of the facade by a three light intensity sensor. The weather station is moreover quick to set up thanks to the factory preset universal and sun protection channels. The Meteodata I40 GPS KNX weather station will be available from September.

Contact: www.theben.de

Tapko Technologies GmbH
The new Push Button Interface



The new TAI-KNX 4 Push Button Interface is a device that enables the use of classical conventional switches or push buttons or for sensing binary signals. It fits together behind a switch in a combined wall and joint box (Ø 60 mm). It is designed for potential free contacts. These floating contacts are connected with four 28 cm long core pairs. The contact scanning voltage is provided by the push button interface. The following functions are available: 1 or 2 Button Shutter/Dimming, Switch (short/long), Send value e.g. percent, angle, temperature, 8-bit, 16-bit counter reset, counter threshold, scene. Also available as OEM version.

Contact: www.tapko.de

tci GmbH
sospeso



tci presents the new touch panels sospeso 10 and sospeso 16 for wall mounting. The construction of the closed housing is extremely flat and can be installed directly on exposed concrete. The brushed aluminum surface is visually attractive. The panels can be configured as a low cost solution for web visualization of popular PLC systems or as a low-power PC system with KNX connection. Combined with contatto from tci the in-house communication works parallel to the building control. This enables convenient 2 in 1 solutions on one touch panel. A variety of application capabilities in hotels, commercial buildings and OEM applications are possible.

Contact: www.tci.de

Theben AG
KNX dimming actuators and dimming boosters



A universal dimming actuator DMG 2 T KNX and extension actuator DME 2 T KNX have been added to Theben's successful MIX 2 range of KNX actuators. The new range of dimming actuators can be used for dimming incandescent, low-voltage, high-voltage and halogen lamps as well as dimmable LED retrofit lamps from 0 to 100 %. Theben offers the DMB 1 T dimming booster to increase the output of basic and add-on devices: Up to 2000 W can be dimmed, when extended. Straightforward configuration via pluggable bus module. Function tests and manual switching are also possible without bus connection.

Contact: www.theben.de

TIANSU
TSRC-01
Hotel Room Controller



The TSRC-01, Hotel Room Controller, is used for intelligent control of hotel rooms based on KNX. It is safe, reliable and easily connectable. In view of its module design, TSRC-01 can easily be installed, uninstalled, module exchanged and maintained. The dimension, distribution of terminal blocks and prearranged space for supply connection make installation very simple. It can interact with other KNX devices to realize special functions in an easy and flexible way:

- lighting control • power socket control • blower/fan coil control • dimming control • blind/shutter control • monitoring • magnetic home sensor • room status input/output • interaction with BMS • various preset scene modes

Contact: www.tiansu-china.com/english

TIANSU
TSHome-HI Intelligent
Household Host



As the family control center, TSHome-HI is the core device of the TIANSU TSHome smart home system, which supports multiple interfaces/standards including KNX, EnOcean, ZIGBEE, RS232/RS485, IP/WIFI and IR. TSHome-HI supports IR learning/transmitting and provides control over the entire family's AV equipment. TSHome-HI also supports remote control and security monitoring. Users can customize TSHome-HI by easy web based input, to ensure that equipment and devices work properly together and for control of the TSHome-HI.

Contact: www.tiansu-china.com/english

Vimar SpA
Well-Contact Suite



Well-Contact Plus, the KNX system for building management developed by Vimar, is integrated in the Well Contact Suite, the system supervision software that can be installed on your PC. Easy to configure, these programs use the ETS database by directly importing the design, with automatic recognition of Vimar products. With a user-friendly, graphically attractive and customizable interface, WCS software is used to supervise the entire KNX system: bookings, access, automation, lighting, climate, alarms and scenarios. The new light version can control hotels with up to 15 rooms, in addition there is the basic version and the top version. The office version is used to manage generic KNX systems.

Contact: www.vimar.it

Vity
KNX Energy Solution



Vity's energy solution offers transparency of energy use and savings in buildings by calculating the consumption values, in order to avoid unnecessary use of energy. The consumption values are detected by a KNX modem placed on the current meter sending the measurements to a Tactum 4NTR touch panel via KNX. Consumption can be visualized on the touch panel or remotely on a Smartphone or a tablet. Users can be made aware of lost energy and hence take measures accordingly. Visualization makes it easy to supervise energy consumption and gives more transparency for a more conscious use of electrical appliances and can be associated with automatic functions to optimize energy savings.

Contact: www.vity.com

Weinzierl Engineering GmbH
KNX USB Stick 330



The KNX USB Stick 330 is a USB interface for the KNX bus (TP). The interface is used to establish a bidirectional connection between a PC or laptop and the bus and is compatible with ETS. The USB connection is galvanically insulated from the KNX bus. Due to the small size of the stick it is suitable especially for mobile use during commissioning. The stick is available as single device as well as with cable set in a plastic case. Length: 90 mm (incl. cover).

Contact: www.weinzierl.de

Weinzierl Engineering GmbH
KNX EnOcean Gateway 630



The KNX EnOcean Gateway 630 is the bidirectional successor to the proven and tested KNX ENO series. Based on a new platform, now not only values from EnOcean sensors can be transmitted to KNX, but also EnOcean actuators can be controlled via KNX. In addition, the device has different logic and control functions. The configuration is done via ETS, to teach-in the EnOcean devices the gateway has a graphical display. Power is supplied via the bus.

Contact: www.weinzierl.de

Zennio Avance y Tecnología s.l.
TMD – Touch MyDesign



Touch-MyDesign is a KNX switch with capacitive buttons that meets the design requirements of any building, as it is fully customizable. You can create a unique design, which may include images, icons, texts or logos, as well as decide how to orientate it (landscape or portrait). Your customized design is professionally printed on high-strength tempered glass, and bordered by an anodized aluminum frame. Four, six or eight button formats are available, and pairs or individual buttons can be used as personalized controls with LED indicators. Touch-MyDesign also includes a thermostat, an internal temperature probe and two analog/digital inputs.

Contact: www.zennio.com

Zennio Avance y Tecnología s.l.
Lumento X4 White



In a further demonstration of Zennio's versatility, LUMENTO X4 WHITE makes the low voltage LED dimmer LUMENTO X4 adapt to projects where white LED strips and color temperature selection are required. LUMENTO X4 WHITE is one of three available application programs for LUMENTO X4. It allows complete control of white LED strips (12 - 24 V DC): light dimming, scenes, sequences, timers, etc. In addition, the selection of the color temperature is possible, in a range from cool white to warm white, depending on the white LED strips in each channel. Up to two cool LED strips with a limit of 2.5A each can be connected to the cool channel, in the same way as the warm LED strips in the warm channel.

Contact: www.zennio.com

Zoppas Industries
**NEEDO Towel radiator line
 CM-CR**



The CM and CR towel radiator line by Needo is the ultimate line of design radiators for the bathroom. Towel radiators CM and CR are based on the cutting-edge technology ACS® – Advanced Condensing System – patented for energy savings in the indoor climate. The radiator offers different data points to enhance the energy management and the thermal regulation such as real time energy consumption, output power, on board temperature, temperature offset, etc. NEEDO provides for each product an innovative algorithm of regulation for the room temperature, certified for energy performance under the normative NF Performance Cat. C. The radiators can be interfaced with any KNX thermostat or display panel.

Contact: www.needo.eu

Well-Documented KNX Projects with the Flyers Checklists



Two flyers for KNX step-by-step project management are available. On the one hand is **Part 1** – Start of project, which contains a checklist for implementing an electrical installation with KNX and a supplementary sheet for other possible applications; and on the other hand is **Part 2** – Handover, which covers the visual inspection, functional check, customer induction and the handover of the system. These documents are already available in several languages (English, German, French, Greek, Hungarian, Italian, Spanish and Dutch). Additional language versions are already being prepared.

Free order via e-mail:
info@knx.org



National Groups

KNX in the Australian Tropics

For the second year in succession, the Australian KNX National Group exhibited at the Custom Electronics Design and Installation Association (CEDIA) show held in Brisbane, Queensland during three days in May. The KNX standard was promoted through handouts, bags and brochures. The exhibition attracted more than 10,000 people, with many visitors receiving KNX show bags. This year the quality of the visitors was outstanding and the attraction of KNX as the



Due to the fabulous temperatures in Queensland, the KNX staff opted for a more appropriate uniform.



worldwide standard provided a real alternative for the two traditional proprietary technologies available in Australia. KNX is now widely accepted as THE platform for true building convergence.

Contact: info@knx.org.au
Web: www.knx.org.au

KNX BiH, the Newest National Group!

On the 26th July, the 31st KNX National Group was founded: KNX BiH (KNX Bosnia and Herzegovina). Important companies dealing in Home and Building Automation took part at the foundation meeting, held in the city of Siroki Brijeg. Several system integrators and representatives from the University were also present. After the signature, the following board members were elected: Miro Gugic from Kamir (representing Apricum) was elected President, Josip Kozul from A3 d.o.o. (representative of MDT) and Ivica Brekalo from AFP (local representative of



Members of KNX BiH, together with representatives of KNX Croatia and KNX International



Tapko) as Vice-Presidents, and Tomislav Landeka as the Secretary of the National Group. Already the first activities have been fixed and the national group is already working on the establishment of the first KNX Training Center in Bosnia, as well as pushing for the use of KNX in projects.

Contact: info@knx.hr

Successful Participation of KNX China at GEBT Guangzhou in June

KNX China participated for the first time with an own booth at the international Guangzhou Electrical Building Technology Fair from the 9th to the 12th June. The National Group KNX China was supported by KNX International and by such local companies as ABB, Hager, Schneider Electric, Siemens, Vimar, easyMOBIZ, HDL, GVS, and Tiansu. System integrator companies also showed their demo panels and applications at the KNX booth. During the four-day event, Mr. Lutz Steiner from Technical University Darmstadt (Scientific Partner) introduced the new KNX city



KNX workshop at GEBT



concept to the visitors at the booth and the audience of the KNX Technical workshop. Mr. Joost Demarest as Director of KNX again gave presentations at the Agora Booth at the Pearl Promenade at the fairgrounds. Thanks to this combined effort, visibility of KNX at the fair was considerable and made a deep impact on the visitors.

Contact: info@knxchina.org
Web: www.knxchina.org

KNX Croatia, a Role Model!

From the 18th to the 20th April, KNX Croatia took part at the exhibition "Energy Days – Banja Luka 2012 Fair" to familiarize itself with the Bosnian market, as well as to show the KNX Standard to potential partners. The participation at this event was organized in collaboration with local partners and manufacturers, who recognize KNX as the worldwide leader for home and building control systems. With the help and experience of KNX Croatia, the potential establishment of KNX Bosnia and Herzegovina was discussed (see the article



Dane Marušić, from a local manufacturer, at the KNX booth.



from KNX Bosnia and Herzegovina for further details). This shows the good collaboration not only between KNX International and its local representatives but amongst local representatives themselves!

Contact: info@knx.hr
Web: www.knx.hr

Denmark is Spreading the KNX Word

The new Chairwoman of the KNX National Group Denmark, Lillian Andersen, made her debut in May at the 'EL & TEKNIK 2012'-Fair, Denmark's largest electrical and technical trade fair for sustainable and energy efficient solutions. More than 8000 visitors stopped by the fair. Besides being on the exhibitors list, KNX National Group Denmark was also represented at the fair's conference area – The Energy Square – where exhibitors held presentations on the different green solutions and products. Every



Lillian Andersen, President of KNX Denmark, at the KNX introduction seminar.

seat at the conference area was filled, when Lillian Andersen and Vice-Chairman Martin Mortensen took the stage and

gave an introduction to the fascinating world of KNX. After the presentation, a large part of the audience stopped



by the KNX stand to sign up for more information about the standard, and it was clear that the demand for a worldwide building control system, compatible with Smart Grid, is growing rapidly.

Contact: info@knxdenmark.dk
Web: www.knxdenmark.dk

The Great Spring of KNX Finland

2012 marked a change in the structure of KNX Finland, in which Harri Liukku from ABB was elected as the President and Veijo Piikkilä from the Tampereen Ammattikorkeakoulu, certified training center, as Vice President. In addition, Johan Stigzelius was appointed as the chief operational executive for the Finnish KNX National Group. Three working groups were also established, to lay down more specific targets in Education, Marketing and Project Installation.

For the last quarter of 2012, KNX Finland will organize a KNX technical workshop, a



The new chief operational executive of KNX Finland: Johan Stigzelius.



marketing seminar and participate in the Installers Association's fall meeting, as well as other communication activities, such as the update of the webpage, publications, etc. One thing is clear: KNX Finland will continue the positive expansion of the market!

Contact: info@knx.fi
Web: www.knx.fi

KNX France at the Interclima+elec Fair 2012

KNX Association France was present at the Interclima+elec Fair, held in Paris, Porte de Versailles, from the 7th to 10th February. The many members (ABB, Eelectron, Hager, Neuron, Schneider Electric, the University of Rennes, Wieland) together with Serge Creola from KNX international ensured a continuous presence at the booth, which welcomed 240 visitors, mainly installers, teachers and building owners. The close collaboration between Hager, the University of Rennes, KNX France and all members, donating their prod-



Overview of the KNX Booth at Interclima+elec 2012



ucts, made it possible to create a "functional and operational" KNX booth. "It is thanks to this booth that the public could concretely experience the interoperability between manufacturers and appreciate the power of ETS 4" said Francois Meyer from Hager.

Contact: contact@knx.fr
Web: www.knx.fr

KNX Germany Presents New Brochures

During the Light+Building, Hans-Georg Krabbe, Chairman of KNX Germany, presented the latest brochures of the KNX German national group. The completely revised marketing package for KNX partners was at the centre of his presentation.

The package is geared exactly towards the needs of KNX partners and helps them with their advertising work as well as with public relations. Apart from theoretical basics on marketing work, the brochure gives numerous practical tips on the following topics: Using the KNX logo, using print advertisements, creating press releases and customer mailings. Registered partners can download all the files from the



The new KNX marketing package supports German KNX partners with their advertising and public relations work.

protected partner area of the website: www.knx.de/partner. Secondly, Hans-Georg Krabbe

presented an updated brochure geared at investors. Its focus is on the special advan-



tages of the KNX technology such as safety and energy efficiency. The brochure is meant to support KNX partners when dealing with potential investors interested in intelligent building automation. Apart from this, the latest flyer regarding energy efficiency through building automation with KNX was presented. Like all the other brochures, it is available for download at www.knx.de.

Contact: knx@zvei.org
Web: www.knx.de

KNX Hungary at the Intelligent Building Conference

On the 14th June, the Intelligent Building Conference took place in Budapest. This one-day-event has its focus on energy efficiency, hosting approximately 220 architects in the auditorium. Several companies presented their solutions and services. KNX Hungary was invited, in order to give a presentation showcasing "Why KNX is the market leader system". The presentation demonstrated to the participants the need for using new technologies and solutions. The participants also



Mr Balogh Zoltán, president of KNX Hungary, during the conference.



learnt what to expect from a KNX system and why its use in today's construction markets is increasingly important. This action will definitely have an impact on the Hungarian market, since KNX Hungary is the first association to approach architects and investors.

Contact: bz@knxhungary.eu
Web: www.knxhungary.eu

3rd National Group Founded in Asia: KNX India!

A new milestone in the internationalization of KNX was reached on the morning of the 25th April: the foundation of the KNX National Group India. More than 50 participants from 25 companies, joined the foundation of KNX India. Mr. Taj Kollara, representing eelectron, was elected as President. The Vice-Presidency is held by Mr. Mohamed Rafi (Schneider Electric) and Mr. Sudhansu Rath (ABB). The office of Secretary is held by Mr. Bhavesh Doshi. Mr. Doshi was the winner of the KNX Award 2010, in the category "Asia" for his outstanding project on Delhi Airport. The KNX National



All founding members at the launch of KNX India



Group India will be a major push for KNX in the emerging market of India. Events all over India are planned and the outlook is more than positive. The foundation of KNX India will not only have a big impact on the Indian market but also on the whole world of KNX.

Contact:
bhavesh@entelechsystems.com
Web: www.knx.in

New Communication Tools for KNX Italia

More than ever, it is essential to communicate and explain the value of technology, in order to show the wide range of possible applications with KNX. It is imperative to highlight the benefits of using KNX solutions, in terms of comfort, energy savings and much more. For these reasons, KNX Italia launched two new important communication tools: "KNX Italia News", the newspaper of reference for KNX world, where the growing family of KNX users in Italy can find information about new KNX products, workshops, training, ETS and any other useful infor-



Screenshot of the new Italian KNX website launched in the beginning of 2012.



mation; and, the new, restyled Italian KNX website, including the Forum, aims to be a daily support for KNX system integrators in the market. The new tools aim to consolidate the KNX market in Italy, as the first reference standard for Home and Building Automation.

Contact: segreteria@konnex.it
Web: www.knx.it

First Basic Course at Sang Myung University

On 27th of July, 15 students and professors from the new KNX Scientific Partner "Sang Myung University" successfully participated at a KNX Basic Course, organized by Mr. Ik-Hwan Seo, President of KNX Korea. This course is the first of many joint activities between the KNX National Group Korea and the KNX Scientific Partner. In the future, a more solid cooperation between KNX Korea and Sang Myung University will be set up. This joint force will not only involve KNX promotional activities but also deepen R&D,



Participants at the KNX Basic Course in front of the software and digital media institute of Sang Myung University



as well as the development of KNX devices in Korea. Six months after the establishment of KNX Korea, KNX has made tremendous developments in Korea. These activities will be the basis for success in the Korean market.

Contact: info@knx.or.kr
Web: www.knx.or.kr

ETS4 is at the centre of attention

At two events in Luxemburg, ETS4 was at the centre of attention:

The first one was a talk organised by the KNX National Group in Luxemburg early this March, where a presentation by André Hänel, Tool Manager of the KNX Association about new developments concerning ETS4 received a lot of attention. Mr Hänel competently answered the questions of the numerous experts attending the event and contributed to a lively exchange of ideas. The second occasion was a workshop about ETS4 in July. After a general introduction, the attendees watched a detailed live demonstration of ETS4.



Alphonse Massard (Secretary of KNX Luxemburg) addressing the audience during the ETS4 Workshop.

The eCampus and the new Apps were also topics talked about in this workshop. After the lunch break, which was also used for a lively exchange of experiences, the participants were given the



opportunity to make themselves acquainted with ETS4 while using the didactic models provided. The young happy winner of the KNX online quiz was Christian Lutgen, who was awarded an ETS4 Professional. Both events took place at the national centre for further education CNFPC in Esch-sur-Alzette, which is also the KNX Training Centre for Luxemburg.

Contact: info@knx.lu
Web: www.knx.lu

Dutch Installer Opts Wholeheartedly for KNX

An increasing number of installation companies in the Netherlands are interested in working with KNX. The five accredited KNX Training Centers are witnessing a sharp rise in the intake of students and also the number of projects in which KNX is requested is increasingly drastically, observed installers and manufacturers. To increase the provision of information about KNX in the market in the Netherlands, KNX Netherlands will offer special informative meetings this autumn. On the 1st November KNX Netherlands will be knowledge partner during the congress Smart Buildings. This congress



The KNX Booth from KNX The Netherlands



will offer lectures and workshops for project developers, investors, technical advisors and facility managers. On 21 and 22 November, for installers in the Netherlands, KNX Netherlands will organise a number of generic informative meetings in which in brief, compact sessions all the basic principles of the KNX protocol will be brought into the limelight.

Contact: info@knx.nl
Web: www.knx.nl

ETS4 Workshop in Madrid

After the enormous participation in the first ETS4 Workshop in Barcelona last year, the National Group Spain continued offering these activities. On 29th May 2012 the next event in this series was held at the Polytechnic University of Madrid. With 45 participants (mostly integrators of KNX projects) the practice room, where the practical applications have been carried out, was filled to capacity. In the first part, the main novelties of the ETS4 were presented, especially in comparison to the ETS3 which is very well known



The audience during the ETS4 workshop in Madrid



to all participants. Additionally, the new ETS Apps were addressed, generating a large interest. After a brief recess, then the participants had extensive time to implement the new knowledge into practice. Many concrete questions of the participants enriched of the event.

Contact: info@knx.es
Web: www.knx.es

KNX Day and Visit to the Swedish KNX Award Winner 2011

As is customary, KNX Sweden organized an event this year at the Motala Convention Center. There were more than 50 participants. On this occasion, many important speakers attended the event, amongst others: Joakim Carlsson from EIO, who presented "Elrätt" the EIO's campaign for the development of the installer using the new technologies; and, to complement this, André Hänel, from KNX Association International, who showed the new ETS APPs and the latest news about the KNX world. After the seminar, Michael Axelsson from the Defense Ministry of Sweden, acted as guide for the group, in or-



Visitors using the KNX t-shirt during the visit to the KNX winner project of the Swedish KNX Award in 2011, the military base: SIB Kvarn.



der to visit a military base 20km away from Motala, SIB Kvarn, the winner of the Swedish KNX Award in 2011, due to its particular control of the area and the training facilities based on KNX. This means that SIB Kvarn is not only the largest facility for combat training in the country but that with the help of the KNX technology, has become the more flexible and future-proof.

Contact: info@knx.se
Web: www.knx.se

Swiss KNX App Proves to Be a Success

The tiny shiny KNX apps are quite informative: The official Swiss KNX app is based on the structure of the website www.knx.ch and contains the following navigation links: News, Magazine, Agenda, Courses, KNX Partners, Jobs and Projects. The app available for iPhones and Android smartphones has already been downloaded and installed 3000 times. In the Courses section, manufacturer courses



The Swiss KNX app supports iPhones, iPod (iOS), Android 2.3.3 or higher

are visible as well as certified KNX courses. They can be sorted according to date and provider. In the Partners area, all KNX partners including manufacturers, wholesalers and building design offices working with KNX products are listed. Schools and training centres training KNX users are also listed. The data can be sorted according to name, postal code or location. Also, contacts can be added to the



user's address book. Partner locations are shown on a map and interested parties can also look for KNX partners using GPS data.

Contact: knx@knx.ch
Web: www.knx.ch

KNX Taiwan Founded

After China, South East Asia, Korea and India, the KNX Association is proud to announce the foundation of the fifth Asian KNX National Group, KNX Taiwan. As part of the Taiwan Architecture and Building Center (TABC), a Taiwanese semi-governmental association for buildings, this KNX National Group will certainly have a big impact on the market in Taiwan. The office of the President is held by Mr. Allen Chen from the company HEP Tech, a Taiwanese KNX manufacturer. The office of the Vice-President is held by Mr. Robert Tso, Schneider Electric, and Mr. Shu, CEO of the TABC. The Secretary's of-



Representatives from all seven KNX Taiwan Members



office is held by Mr. Samuel Yang, Secta Taiwan and the treasurer's office by Mr. Eric Chen, Jung Taiwan. Further members are the local representative of Theben and Siemens. First activities have been already discussed at the foundation meeting, such as promotion towards the users of KNX, as well as towards the Taiwanese government.

Contact:
samuelyang623@gmail.com

ECOBUILD Showcases KNX in the UK

KNX UK has had a very active 2012! The highlight so far has been participation at the Ecobuild 2012 exhibition, held at EXCel in London during March. Visitors were able to see for themselves the strength in depth of the KNX UK Association and the importance of KNX technology in today's quest for energy efficient, integrated buildings. Manufacturer members Theben, Wieland, BEG, WAGO and Somfy took the opportunity to promote their own KNX products with individual Pods on the KNX UK stand. Systems Integrator member Bespoke Automation



Simon Allen, Owner and Managing Director of Bespoke Automation, Member of KNX UK.



also took a Pod to promote their services, the KNX message and to give working demonstrations to visitors of the benefits of KNX.

Looking forward to Ecobuild 2013!

Contact: admin@knxuk.org
Web: www.knxuk.org



New Training Centres

GERMANY
AVITA Intelligent
Building Co. Ltd



AVITA Intelligent Building is a company active in design, consulting, equipment supply and supervision of KNX projects. The company offers best quality engineering and expertise services, along with a mechanic workshop and an electric department. Its engineers have an extensive practical background in the field of KNX, BACNET, ASHRAE, IEEE and ASME Standards, choosing the best solution

with regards to cost efficiency and energy savings. As system integrators they have commissioned a large number of different types of projects, like residential towers, industrial sites and hotels. They only work with high quality manufactures and products, like ABB, WHD, Züblin, etc.

Contact: www.knxcenter.org

LEBANON
BATC



Based on the expected expansion in the home industry in the next decades, with a trend to home automation to increase efficiency and to allow state-of-the art requirements, the Building Automation Training Center (BATC) was established in Lebanon in 2012, in order to provide up-to-date know how to consultants and to contractors in the field of automation based on the world leading protocol, KNX. Until today, BATC already organ-

ized two one-week KNX Basic Courses with concluding certification. Nine engineers from Lebanon and from neighboring countries are now registered KNX Partners. BATC also promoted KNX at the Project Lebanon 2012 fair, the annual leading construction exhibition in Lebanon.

Contact: www.batc.com.lb

TURKEY
Berker Turkey



Berker Turkey has shown its future-oriented corporate philosophy in the past five years by completing quite a number of KNX Projects with 23 well-organized solution partners. To improve the KNX skills of partners and to spread KNX knowledge in the Turkish market, BERKER Turkey has decided to become a KNX certified training center. Berker Turkey is aware that one shall never stop educating oneself and to promote this, Berker

Turkey organizes training courses, conferences and panel discussions; whereby partners, customers and students can stay up to date with the KNX technology. The more KNX certified installers, the more extensive KNX installations. Berker Turkey plans to add new well informed KNX Partners to those already active in Turkey.

Contact: www.berker.com/tr/tuerkiye

GERMANY
CA Brachtendorf
GmbH & Co. KG



Since April 2012, the engineering firm in the heart of Düsseldorf cab ih.com, has become a new KNX training center with a focus on architects and building designers. The specialization of the engineering office for architecture in home automation is unique. In 2006 they won a KNX Award. Clemens Brachtendorf gained a lot of experience over the years, supporting the development of the KNX bus system and the hardware of different manufacturers,

which he then used in the field. The enthusiasm about the infinite possibilities of the system and the high reliability were the catalyst to also decide as engineering company to become a training center. Within the space of its own showrooms, people interested in real installations can experience the world of KNX.

Contact: <http://cab-ih.com>

GREECE
e-dreams Academy



e-dreams Academy is the training leg of e-dreams, active in building control systems. The company has focused on KNX for more than ten years, finalising multiple successful and large scale projects. As certified KNX training center it offers KNX courses and even private sessions. Apart from KNX language, it fully understands the concerns of architects and designers and knows the intricacies of building controls, focused to implement KNX in a sustainable environment in all aspects. Even

if one is familiar with KNX, one may still need an additional neutral and personal advice for one's planned project. The company's experts evaluate the customers' needs with remarkable understanding. With more than 20 years of uninterrupted experience in the area of automation systems, e-dreams can definitely add value by implementable practices that work!

Contact:
<http://academy.edreams.gr/home-eng>

GERMANY
Esylux Deutschland GmbH



ESYLUX, headquartered in Ahrensburg, has been offering products for energy savings, safety and comfort. The merchandising of ESYLUX-products in Europe is done via three-stage distribution. Especially in the product range presence detectors ESYLUX offers a suitable product for

every application of energy-saving lighting controls. Especially for modern building technology presence detectors with KNX are offered to meet the ever increasing complex needs.

Contact: www.esylux.com

SPAIN
Grupo Conitec Ingeniería y Domotica SL



GRUPO CONITEC S.L. was established in 2005 as an engineering company dedicated to promote and provide design and consulting services for the integration of intelligent automation. From the beginning, the KNX technology was its main tool to implement bigger and more interesting projects. Now after extensive ex-

perience in the sector, through its Training Department, Conitec is providing high quality training to new KNX Partners at the national level, in order to transfer all its knowledge to new students.

Contact: www.grupoconitec.com

ISRAEL
S. Kahane & Sons



S. KAHANE & SONS was established in 1935 and has been one of the leading companies in the domains of electricity, electronics, home automation and audio video ever since. KAHANE GROUP employs over 120 proficient workers and provides its customers with a professional and qualitative service. The KAHANE I-BUS department at KAHANE GROUP leads the way in home automation and executes complex and professional projects, which were nominated for a KNX Award. Following the rising demand to execute pro-

jects utilizing KNX, the KAHANE Training Centre opened in Israel, the first in the country, to meet the need for professional KNX programmers. The aim of the KAHANE Training Centre is to train highly skilled KNX programmers and to enable them to carry out projects at the end of their qualification as well as to place KNX as the leading technology for home and buildings control in Israel.

Contact: www.kahane.co.il

MACEDONIA
Kompjunet Inzenering



Kompjunet Inzenering was founded in 1999 in the Republic of Macedonia. Until now, its main fields of interests were health care and telecommunication. It is a leading provider of health care software for many health institutions and also provides VoIP services for many customers. In the future, it also intends to focus on KNX-based home & building automation. As part of its KNX-related activities, Kompjunet plans to establish a KNX certified training center. The certified KNX training center will have two primary goals:

1. Increasing awareness for home & building automation and the KNX standard
 2. Training for the use and implementation of KNX products in home & building automation
- Kompjunet's intention is to include lectures for KNX in some subjects at technical faculties in the region. It already implemented equipment in some building automation projects.

Contact: www.compunet.com.mk

MEXICO
KNX Training and development center, LATAM

The main mission of the KNX training and development center, LATAM is to bring a clear vision of the concept of KNX to Mexico and North America. It promotes KNX for home and building projects, but only works with trained and certified companies. The center has a domestic and immotic project development division and

another division for KNX project management. The KNX center is located in the main economic zone of Mexico, Mexico City and is part of the academy of micro-electronics in the country.

Contact: www.knx.mx

FINLAND
Prakticum



Training in the skills area technology in the vocational school Prakticum spurs students to own activities and personality as well as supports their readiness for further education. Prakticum has an open and positive learning environment. Each training program comprises 120 study

weeks (three years), and gives general permission for further academic training. It works closely with industry and for each industry branch with the latest technology.

Contact: www.teknik.fi

UAE
Schneider electric FZE Training Center



The Schneider electric FZE Training Center now organizes KNX – Certified courses for home and building control. Smart controls are a key part of modern buildings. Attending this five day certified course allows participants to effectively deliver the benefits of KNX building controls, and provide value added system design and installation service to their

clients. The course provides participants with an understanding of the key elements of design, installation and commissioning of KNX control systems. Customized training solutions – not offered in existing courses – can be provided, if the number of participants is sufficient.

Contact: www.schneider-electric.ae

ROMANIA
Schneider Electric Romania



After many KNX introduction and KNX Schneider product trainings held in Romania, Schneider Electric Romania has now decided to also offer KNX certified courses. This will complete Schneider's support to the customers and will create and encourage the development of the Romanian KNX market. Schneider's

efforts will be continuously backed up by KNX presentations to architects, installers, planners and electricians. Schneider is committed to showing the potential for energy savings offered by KNX and its wonderful openness.

Contact: www.schneider-electric.ro

NORWAY
Solar Norge AS



stronger together

The drive behind all innovations is the belief that there is always room for improvement. New technology creates new opportunities, skills are a key factor to realizing this potential and in times with increased competition keeping up with progress is crucial. Employees need training to keep up to date and be able to meet future demands. Solar School contributes to raising competences for installers and consultants within the electrical industry by offering a wide range of courses with

the latest products, technologies, legislations, strategies and business development. As a new KNX certified training centre Solar Norway can now offer a KNX Basic course through Solar School. After completing this course the participant will have sufficient knowledge to work with KNX projects in a professional and profitable manner.

Contact: www.solarnorge.no

FRANCE
Somfy KNX Training Center



Somfy has been accredited "KNX Training Center" and can now train and certify future KNX partners (Somfy technical staff, electricians or system integrators). These trainings are run in English; German or French by LECS, an engineering and consulting firm that is a Somfy Partner. These trainings can take place anywhere in the world or be held at the training center based in Somfy Headquarters in Cluses, France. The training center offers KNX

courses based on the utilization of Somfy control units (Mocos) and the following functions: switching, dimming, shutter control, coupling of two TPI lines but also the use of ETS4 software. The participant will not only learn how to control basic functions but will also benefit from Somfy's expertise in Commercial Buildings' solar shading management.

Contact: www.somfy.com

CHINA
TIANSU
Training Centre

TIANSU

TIANSU is a manufacturer of KNX products in China and is experienced in the field of green smart building. To promote the development of the KNX technology in the Chinese market, TIANSU established a KNX certified Training Center in Nanjing, Jiangsu Province, offering KNX

basic courses. People interested in KNX can learn the theory and practice on experiment panels. Tiansu also provides technology forums to discuss how to better realize green smart buildings.

Contact: www.tiansu-china.com

TURKEY
VIKO Elektrik Elektronik
End. San. Ve Tic A.S.

VIKO

VIKO Elektrik and Elektronik Incorporated is the leading company in the low voltage sector of Turkey. VIKO is a member of KNX since 2009 and has its own brand products called THEA IQ, which are fully integrated with KNX. VIKO now wants to contribute even more to the spreading of the KNX system and increase the

number of users. To do this, VIKO will organize KNX training sessions for Turkish and foreign people at regular intervals and also cooperate with universities to offer courses on KNX.

Contact: www.viko.com.tr

In thirteen languages!

Handbook for Home and Building Control

The KNX handbook has been already translated into Chinese, Croatian, Dutch, English, Finnish, French, German, Italian, Norwegian, Persian, Russian, Swedish and Spanish.

The handbook introduces the reader into the KNX system and common applications.

This edition (5th edition 2006) addresses beginners as well as professionals who already have a basic knowledge of home and building control based on KNX.

You can order the book at the price 24,90 € plus shipping from:

KNX Association
De Kleetlaan 5 Bus 11
B - 1831 Diegem-Brussels
Belgium



For order: <http://onlineshop.knx.org>



New Scientific Partners

SPAIN CITCEA-UPC



The Center of Technological Innovation in Static Converters and Drives (CITCEA-UPC) is part of the Technical University of Catalonia (UPC). The center is devoted to developing research, innovation and technological transfer to the industry. The group activity is focused on mechatronics and enertronics. Mechatronics combines the fundamentals of mechanical, electrical, and computer engineering. CITCEA-UPC works in this field on power electronics, drives, motion control, automatization and

industrial communication. Enertronics is the synergistic combination of electronic signal and power, computing and control systems. In this area CITCEA-UPC has expertise in wind energy, photovoltaic energy, Smarts grids and Microgrids, renewable energy, railway, grid integration of electric vehicles and the IEC68150 standard. CITCEA-UPC is also involved in university-business cooperation agreements.

Contact: galceran@citcea.ups.edu

SPAIN IES Antonio José Cavanilles



The Secondary School Institute "IES Antonio Jose Cavanilles" is an ISO 9001:2000 certified center of secondary education and vocational training, with many years of experience in home and industrial automation. It is a large urban secondary and further education school. Long-term links with public institutions and local industry enables it to offer career advice, work

experience and apprenticeship training. It has experience in developing educational resources and the organization of courses tailored to e-learning and blended learning type of education. It is working on bridge systems for web servers and mobile devices to KNX.

Contact: fp@cavanilles.es

SPAIN IES EL Palmeral



IES EL Palmeral in Orihuela (Alicante) is a technical school founded in the 70s, offering higher education and practical training in electrical and electronics installations among others. The department of electronics has been doing research in microcontroller devices for the last twenty years. At present, they are work-

ing closely with other Spanish secondary schools. In fact, in different ways it works to optimize the use of energy, renewable energy sources, telecommunications and intelligent building control systems, using KNX as the standard working system.

Contact: farosgarcia@gmail.com

SPAIN IES Pedro Cerrada



IES Pedro Cerrada is an educational technology center working on an energy efficiency project with two other Schools: IES La Garrotxa (Olot) and IES El Palmeral (Orihuela). It works daily with its pupils on a 60 square meters plasterboard building model of four simulated flats (with kitchen, living room, bedrooms, bath,...), where pu-

pils install the whole electrical system from scratch. In the next school-year, its aim is to implement the KNX system in its plasterboard model. In doing so, special attention will be given to energy efficiency.

Contact: iesutebo@educa.aragon.es

GREECE
Technical Education
Institution of
Western Macedonia



The Laboratory of Electrotechnics and Renewable Energy Resources of the Electrical Engineering Department is equipped with cutting-edge research and education technologies on renewable energy and smart grid fields. The institute also continuously increases and updates its laboratory facilities. A fully functional electric microgrid is available in the research facilities. Its main parts are: island inverters, PV inverters, PV panels, a small wind-turbine, FLA batteries, various loads, data acquisi-

tion cards, measurement apparatus and PCs for measurement collection and grid management. The aim of the institute is to introduce a new distribution grid topology, with increased use of renewable sources. The institute wishes to enhance the interoperability between KNX and the developed microgrid infrastructure in the new topology.

Contact: dstimoniaris@yahoo.gr

GERMANY
Technische Universität
München



The Heinz-Nixdorf Chair for Medical Electronics at the Technische Universität München performs research in several scientific fields of medical applications. One of the latest technological approaches aims at therapy related hospital lighting, where LED based lights will help to improve the patient's mood and to ease the stay in the hospital. The presented EtherLED® technology can be set according to one's wishes to create an agreeable atmosphere and to influence the viewer's mood. Color

stimuli should trigger feelings and associations. Each color has its own universal impact, provoking similar sensations in people. Furthermore, the system used is able to produce biodynamic light of different color temperatures to simulate a naturally lit environment. The most important areas of application are architecture, such as interior design and environmental design, as well as commercial applications.

Contact: ilchmann@tum.de

ETS Apps and KNX city: Two new flyers for KNX

The flyers are already available in two languages: English and German.

The ETS Apps flyer informs you about current ETS Apps you can buy in the KNX online shop. Moreover there will be a leaf inlay, which informs about new future ETS Apps.

The KNX city flyer informs you about the prerequisite for achieving sustainable cities, i.e. sustainable buildings. Smart cities call for interdisciplinary solutions spanning over buildings, mobility, energy, infrastructure and communication, each of the elements equally needed. This is referred to as a systems approach.



You can order the brochure for free at:

KNX Association
 De Kleetlaan 5 Bus 11
 B- 1831 Diegem-Brussels
 Belgium

General contact:
 Tel.: +32- (0)2 - 775 85 90
 Fax.: +32- (0)2 - 675 50 28
 E-mail: info@knx.org



www.knx.org

That Is Know-How...That Much You Have to Know

So read the invitation to the regular summer meeting of the KNX Professionals. And, an impressive number of visitors did accept the invitation to Nuremberg, many simply because the topic "Working Effectively with the ETS" is an important basis for every KNX professional's work. Attendees were able to contribute input based on their wealth of experience, as well as to profit from the other participants' knowledge. The organizers invited all the leading KNX manufacturers to introduce the individual attributes of their products in relation to ETS. Participants had the opportunity to expand their specialized knowledge and get to know the unique features of previously unfamiliar products. The firm Jung started off the program, led by Eugen Stre-



KNX Professionals for a visit by ABB in Nürnberg.

icher, who is responsible for internal training. He spoke about ETS plug-in devices, free ETS4 group address structure, and plug-in device archival. He was followed by Thomas Lange from Gira, who discussed project archival, KNX products with a database plug-in, and the special characteristics of ECON software. Dieter Eckel, representing ABB, gave an overview of which devices require a plug-

in and their requirements and also focused on the reconstruction of devices and how these devices can be copied. Next, Mr. Bundrock of Busch-Jaeger provided an outlook on the topic of Power Tool and ETS applications. Andreas Stransky of Merten by Schneider-Electric, gave an explanation of effective (plug-in-free) work with ETS. Helmut Schnitzler of Siemens rounded out the



program of presentations with a journey into the world of company products and speaking about the energy-saving potential based on DIN 15599. The discussion regarding tips and tricks for working with ETS formed the conclusion of the comprehensive information on hand. Following the roster of presentations, a short member meeting took place. The members addressed the current issues of the organization, briefly reviewed Light and Building, and set several new dates in the calendar.

Contact: www.knx-professionals.de

KNX Userclub Hungary Informs about Energy Efficiency

The event was held on 14th June 2012 at the Hotel Bara Budapest. Architects and electrical designers were invited to this Smart Home conference. Approximately 180 people attended the event. The main topic of the conference was smart home and energy efficiency. The Budapest Technical University also supported this conference.

Contact: bate.gyorgy@termicont.hu



Mr György Baté is giving a presentation about how to comply with the EN15232 standard using KNX.



KNX Professionals Theme Meetings are Very Popular

The theme meetings that are organised for KNX Professionals in the Netherlands have proven to be very successful. Since 2009 KNX Professionals in the Netherlands have been able to attend theme meetings three times a year, where each time a specific subject is main topic. In the first session of 2012 the subject wireless was in the limelight. More than 110 KNX Professionals attended this meeting. The second KNX theme meeting, which took place in June,



Thematic meeting with KNX Professionals

dealt with the link between KNX and security systems. This subject attracted 130 KNX Professionals. Next to

presentations about legislation and guidelines, practical solutions were also shown, elaborated and presented by system



integrators and suppliers. The third KNX theme meeting in 2012, which will take place in October, will focus on energy savings, how to convince technical advisors to opt for KNX and accreditation according to EN 50900 and EN 15232.

Contact: www.knx-professionals.nl

KNX at International Conferences / Fairs

Helsinki (Finland)

AIE Annual Event and Council of Delegates 2012

The Annual AIE Conference is a three-day-event organized by the European Association of Electrical Constructors. This year the conference was organized in Helsinki and, therefore the Finnish representative of the electrical constructors in the country, STUL, supported AIE in the preparation of the event.

A debate was started and the AIE audience and its 50 delegates were challenged on important and hot topics such as: 'The State of the Art in Energy Efficiency' in buildings, international benchmarking, energy and electricity solutions in South Africa and the introduction of the KNX city concept of an energy efficient city in Asia, presented by KNX.



On Friday 6th July, Mr Janne Skogberg (FI) was granted an extension of his mandate as President until September 2013. Equally Mr Allan Littler (UK) and Mr Gunnar Gran (NO) were re-elected as experts in the Policy Coordination Committee.

Contact: info@knx.org

Delegates of the AIE Annual Conference and Council of Delegates

Basel (Switzerland)

The Winners of the CYE2012 in Basel: Switzerland, Austria and Germany

The 12th CYE competition took place from the 13th till the 18th of April 2012 in Basel (Switzerland). The competition was organized by the European Association of Electrical Contractors (AIE), together with the Swiss Association of Electrical Installation Companies (VSEI) and supported by KNX Association. The winners of this year's championship were: Stefan Wyss from Switzerland (Gold), Clemens Kerschbaumer from Austria (Silver) and Markus Müller from Germany (Bronze).



The three smiling faces for the CYE2012 are known! Congratulations to (from left to right) Markus Müller (Germany, 3rd), Clemens Kerschbaumer (Austria, 2nd) and Stefan Wyss (Switzerland, 1st).

This important European competition promotes excellent education and training in industry actively supporting young professionals. Many of the competitors commented that – winner or not – the competition was a unique experience, having the chance to work with new, unknown devices and the KNX technology. KNX Association international would like to thank the two Swiss KNX experts Robert Schär and Daniel Schmidt for their support!

Contact: info@knx.org

Santiago de Chile (Chile)

First KNX Basic Course in Chile

Following the recent growing demand in Latin American countries, representatives of the official KNX Training Center Factum (KNX CTF) travelled from Buenos Aires (Argentina) to Santiago de Chile (Chile) in the last week of May, to train a group of interested persons to become KNX Partners.

As a result, six new professionals became KNX Part-



The KNX tutors, supervisor and the students at the KNX Basic Course.

ners and they are already preparing to start carrying out KNX projects in their country. In total, the number of Chilean KNX Partners has risen to 30 in recent months. This shows once again the growth of KNX worldwide, even crossing the Andes Mountains.

Contact: training@factum-ingenieria.com.ar

Montpellier (France)

KNX Training Centre Conference

With the number of training centres / partners increasing in France, KNX Association decided to organize the 2012 annual conference for training centres in the lovely city of Montpellier (France). Around 50 representatives of training centres and partners of the KNX community received information about product novelties that previously had been presented at the light+building fair in Frankfurt. The highlight of this year's conference was the presentation of the ETS apps. All ETS apps received



2012 annual conference for training centers in Montpellier.

a warm welcome from the audience, especially one App which is intended for KNX training centres only, i.e. the "Training Centre Tool". Unloading the entire installation after course completion is now done in the blink of an eye!

Link: <http://www.knx.org/knx-partners/training-centres/events>

Bangalore (India) & Guangzhou (China)

Continuing The Worldwide Education

In the latest issue of the KNX Journal, KNX Association gave evidence of the interest in establishing KNX Training Centers around the world, especially outside Europe. However, candidate training centres, in new markets, experience difficulties in getting persons qualified as KNX tutors, either because there is no training centre providing certification for tutors or because the nearest one is at great distance from the candidate training centre, an additional cost factor.

Therefore, for a number of



Participants of the latest KNX tutor course in China, with the KNX Tutor Joost Demarest.

years, KNX has been offering KNX crash courses for such candidate tutors, either at the premises of the candidate training centre or directly in the KNX head offices.

Since the end of April, KNX Association has organized courses in India and China, training more than 30 people. Maintaining this good spirit, KNX Association will continue paving the way for the opening of new KNX training centers by training new KNX tutors not only in Asia, but worldwide.

Contact: info@knx.org

Brussels (Belgium)

New KNX Presentations



KNX Association now offers new presentations: Do you know the history of KNX or to which international Standard it complies? Or maybe you are interested in learning more about the main advan-

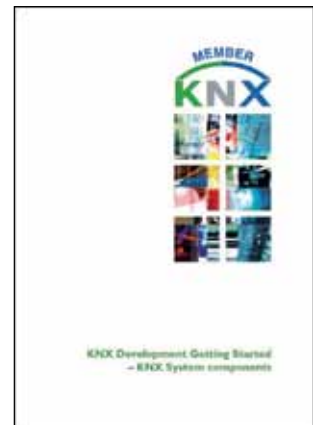
tages of KNX or be informed about the market relevance of KNX worldwide? If so, download the updated general presentation on KNX, available in seven languages.

Link: <http://www.knx.org/downloads-support/downloads/>

Brussels (Belgium)

KNX Association Now Offers 4 New Flyers

In recent months, KNX Association has launched four new flyers, that will provide the reader with vital information about different topics, such as: How to become a KNX National Group (available in English); How to become a KNX Member (available in English); How to become an ETS App Developer (available in English); and KNX Development – Getting Started: System Components (available in English / German). You can find them all in the download section of the website under KNX Flyers.



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

Brussels (Belgium)

KNX Facebook Page Renewed



Together with the introduction of Facebook Timeline, KNX Association has renewed its Facebook page. This page will now provide you with the latest news about KNX, events, products, members, special ac-

tions and so forth, on a daily basis. So, if you have a Facebook page and don't want to miss any news about KNX, visit and link the page to join the massive KNX Community and share it with your friends.

Link: www.facebook.com/knxassociation

Brussels (Belgium)

New KNX Videos Online!



New videos showing more activities of KNX have now been uploaded to our KNX-YouTube webpage. See the KNX video Solutions and get inspired by new ideas watching the latest possibilities of how KNX can be used. Also, watch the KNX Members video in order to learn about

the latest products on the market. Or watch the APPs video that summarizes the new KNX ETS Apps. All these videos, and other about the KNX Top Event, KNX Award 2012, etc, can be seen on the KNX-YouTube account.

Link: www.youtube.com/user/knxAssociation

Brussels (Belgium)

New Web Pages for ETS APP Developers



During the second quarter of 2012, the ETS Apps were introduced to the ETS software. An ETS App is an add-on software program that is used together with ETS. The purpose of an ETS App is to extend the functionality of the ETS Software, tailored to the needs of the KNX system integrators.

Link: www.knx.org/knx-tools/ets-apps/ets-app-developers/about/

Brussels (Belgium)

KNX Online Shop in Finnish



The KNX Online Shop has been fully translated into the Finnish language and is already online. From now on, Finnish-speaking users will be able to purchase any

products, check their important information in their own language and much more. If you are interested, visit our KNX Online shop and switch to Finnish.

Link: <https://onlineshop.knx.org>

Brussels (Belgium)

Updated KNX Devices page

You can now see the newest KNX products from our KNX members, as published in the latest KNX Journal, directly on our website and in ETS4! This overview informs you about the latest innovations in KNX products with a short product description, a picture and a direct link to the website of the KNX manufacturer in question. You can type the following link in your browser or open the ETS4 software to see all new KNX Products!

Link: www.knx.org/knx/knx-devices/

KNX Devices			
Certified KNX Products			
For a list of Certified KNX Products, please click here .			
New KNX Products			
Manufacturer	Title	LINK	PICTURE
Se.e.s.t.	external KNX communication modules	http://www.seest.com	
ABB	ABB Mylon KNX Range	http://www.abb.com	
ABB Elektro-Service GmbH	ABB i-bus Tool	http://www.abb.com	

Brussels (Belgium)

6 New KNX Press Releases in 2012

Since the beginning of 2012, KNX Association has published the following six new KNX Press Releases: KNX is the most popular protocol in European markets sharing more than 70% of the total market value; KNX city – the sustainable city; KNX city at light+building 2012; New Apps make ETS4 even more versatile; Glittering KNX Awards Ceremony 2012 attended by winners, nominees and more than 1,500 guests from 76 countries; KNX entry now made much easier (eCampus); and Generation KNX Video Contest is an All Round Winner!. You can read and download them from the KNX website.

Link: <http://www.knx.org/news-press/press-room>

Brussels (Belgium)

ETS eCampus Available in Six Languages



The eLearning tool “ETS eCampus” from KNX can help set you on the path to success. This new web-based training tool, the KNX ETS eCampus, will help the KNX newcomers to quickly start with the basic principles, functions and control concepts of the KNX system and learn the most important



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steps with ETS4. The tool is available FREE OF CHARGE via the KNX Online Shop and is now also available in French, Dutch, Greek and Italian in addition to the already available English and German versions.

Register at:
<http://onlineshop.knx.org>

KNX Conferences / Fair Schedule

2012



Oekofoire 2012

14. – 19. 9. 2012

Kirchberg (Luxemburg)

Fair for environmentally friendly products

<http://mouvement.oeko.lu/oekofoire>

shanghai intelligent building technology
 上海国际智能建筑展览会

Shanghai Intelligent Building Technology

20. – 22. 9. 2012

Shanghai (China)

Event that aims at brand-building & invites professional buyers

http://www.messefrankfurt.com/hk/fair_homepage.aspx?fair_id=45&exhibition_id=46



IBS 2012

26. – 27. 9. 2012

Paris (France)

Intelligent Building Systems Exposition focused on Smart Systems for Building Performance

<http://www.ibs-event.com>



Light Middle East

1. – 3. 10. 2012

Dubai (UAE)

The only dedicated lighting platform in the region of the Middle East

<http://lightme.net>



23rd Congress AADECA

3. – 2. 10. 2012

Buenos Aires (Argentina)

Biennial event for academics, students, professionals and specialists in automation

<http://www.aadeca.org/aadeca12/html/congreso/congreso.php>



ELECTROtec 2012

4. – 7. 10. 2012

Athens (Greece)

The biennial exhibition for electronics developments and lighting design

<http://www.electrotec.gr>



Light India 2012

5. – 8. 10. 2012

New Delhi (India)

Fair that focuses on energy efficient lighting and LED technology

<http://http://www.light-india.in/>



Smart Homes 2012

9. – 11. 10. 2012

Amsterdam (The Netherlands)

Exhibition and conference that focuses on the world of the connected home

<http://smarthomes2012.com/>



Build Eco Xpo 2012

10. – 12. 10. 2012

Singapore

Building exposition in South-East Asia focused on green building

<http://www.bex-asia.com>



Hem & Villa Stockholm
11. – 14. 10. 2012
Stockholm (Sweden)
The largest do-it-yourself trade fair
<http://stockholm.hemochvilla.se>



Autumn Fair
13. – 21. 10. 2012
Kirchberg (Luxemburg)
A must-attend event focused on products and services for anyone with building, renovation or decoration plans in mind
<http://www.automne.lu>



KNX National Group Conference
15. – 17. 10. 2012
Istanbul (Turkey)
Yearly conference for all KNX National Groups
<http://www.knx.org>

CEP® Clean Energy & Passive House EXPO

CEP Expo
17. – 18. 10. 2012
Budapest (Hungary)
International exhibition and conference for energy efficient and intelligent building
<http://www.cep-expo.hu>



Belektro
17. – 19. 10. 2012
Berlin (Germany)
Trade fair for electrical engineering, electronics, and lighting
<http://www.belektro.de>



MATELEC 2012
Madrid (Spain)
23. – 26. 10. 2012
An ideal platform to present the new developments related to HBS and telecommunications
http://www.ifema.es/ferias/matelec/default_i.html



HI-Tech Building 2012
30.10. – 01. 11. 2012
Moscow (Russia)
This exhibition presents intelligent building technologies for building operation and management
<http://www.hitechbuilding.ru>



KNX Scientific Conference 2012
1. – 2. 11. 2012
Gran Canaria (Spain)
Bi-yearly event where KNX Scientifics and KNX Members meet
<http://www.knx.org/knx-partners/scientific/scientific-events/>



Interlight Moscow 2012
6. – 9. 11. 2012
Moscow (Russia)
International trade fair for lighting, electrical engineering, home and building automation
<http://http://www.interlight.messefrankfurt.ru/>



Sicurezza 2012
7. – 9. 11. 2012
Rho (Italy)
The world's largest security & safety fair
<http://www.sicurezza.it>



National Domotics & Smart Living Fair
21. – 22. 11. 2012
Eindhoven (The Netherlands)
Trade show mainly based on home and building electronic systems
<http://www.beursdomoticae-slimwonen.nl>

2013



ISE Europe
29. – 31. 1. 2013
Amsterdam (The Netherlands)
Europe's No. 1 event for the professional AV and electronic system industry
<http://www.iseurope.org>



ISH
12. – 16. 3. 2013
Frankfurt (Germany)
Trade fair for bathroom, building, energy, HVAC, renewable energies
www.ish.messefrankfurt.com

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.

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The worldwide STANDARD for home and building control

KNX Members **285 manufacturers from 33 countries**

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ALFENBERGER	aitra	ambiHome	AMS	AMBER WIRELESS	AMX	Apricum	APT	arcus-ed	armourHOME	ATEIS	WINK HAUS	ampip	
BAB TECHNOLOGIE	b-b	BACHMANN	BALMART	basalte	BECKER	BELDEN	B. Berker	BENTON & BOWLES	beyerdynamic	BILTON	Bischoff Elektronik GmbH	Bitwise CONTROLS	Bleu Comm Azur
Blucasa	Building Management Systems	B/S/H/	BOSCH	BLA LUXOMAT	bicino	HUBENDORFF	BUSCH-JAEGER	ICLACO	CAREL	CD	MULTICON	CIAT	Cillichemie
Colorado VNet	COMM-TEC	ConDay Automation	Control4	CONTROLPOINT	COSTER	CRESTRON	CYTECH	CYTEL	DAIKIN	Dallmeier	DATA DESIGN SYSTEM	DATAC ELECTRONIC AG	
Dawwyler Cables	DEHN	DELTA DORE	denro	de	DGA	HOME COCKPIT	de	DiNUY	DISTECH CONTROLS	DIVUS	DKX	DOMATICA	
DOMOTICA LABS	DOMOTIK	DURA TECH	EAE	EAS SYSTEMS	easyMOBIZ	E.T.N	EBERLE	Warmitzler	eelectron	elmarks			
ElabNET	elero	ELDAT	ELECTRAX	Electrium	Egi	eisSOUND	ELAN	elka	ELMOS	elsner	SMINN	coronis	
Embedded Automation	embedded systems	EmCom	energiehager	enOcean	R SYSTEMS	ergo3	ESN	ESYLUX	eutelsat	EXOR	oventrop		
Felle	FieldServer Technologies	FS	FLXT	funcio	GDS	geca	GEVA automation	GEWISS	INTECONTROL	INTEVISION	GFS		
GIRA	GIP tronics	gorenje	GRIESSER	HDL	hager	HEP	Waldmann W	Herholdt Controls	HighDom	HOME SYSTEMS			
Honeywell	hugomüller	HunterDouglas	ibs	ICONAG	iKNiX	inAccess	Infineon	ingenium	InnoTeam	INSTA			
INSYS	Intesis	Zoppas Industries	iRidium mobile	ise	Gesellschaft für Informationstechnik mbH	JoongAng CONTROL	Kellendonk Elektronik	KNX	Comfortelek	KOMTECH			
LDS	legrand	Lifedovus	Lingg & Janke	Lite-Puter	Lithoss	LOYTEC	OLUTRON	Züblin	MACTECH	MatrikonOPC			
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