

Multimedia with ECO Mode

Los Angeles: prominent residence with intelligent building technology

Winner
KNX Award 2010
Category
International Africa,
America, Australia



An exclusive residence with a 1,900 m² home nestled in the quiet Los Angeles hills: This substantial home includes six suites, two living areas, a theatre room, two game rooms, a wellness landscape with waterfalls, pool, sauna, fitness gym and a basketball court outside. It stands to reason that such a building complex relies on intelligent building control technology. The choice of KNX confirms once again the advantages of this world standard for certified and compatible components. This is precisely the solution with which designer and system integrator Benolli Smart Systems in Los Angeles, USA, was able to meet the customer's wishes for high comfort, exciting design and energy efficiency. The KNX installation for the comfortable home and guesthouse of the famous HOF baseball player Eddie Murray in Los Angeles, California, impressed the jury sufficiently, leading them to select it for the KNX Award International Africa/America/Australia. This project includes all applications that are typical for upscale installations in private residences, almost in the manner of a showroom: comfortable lighting, automatic solar screening, energy-saving control technology, media technology, security monitoring and central operating touch panels with exclusive visualization.

High degree of lighting comfort

The numerous preset scenes, which can be used to transform the interior and exterior into changing light moods are an example of what can be done with modern artificial lighting. There are buttons



Pool landscape in party lighting mood – easy operation via one-touch scene button

for room, house and event scenes, for coming and going, and scenes for daytime and nighttime operation as well as an Eco mode. To this end, the installation includes 220 lighting circuits with dimmer, switching and LED functions. For example, the energy saving mode switches the exterior lighting via a timing program and uses a brightness level of 40 percent. When the lights are activated, for example by a movement sensor, dimmers increase the brightness level. In the bathroom facilities, presence sensors activate the lighting on demand. The operation via the graphic user interface is very comfortable and can be accessed by iPhone, touch panels and from a PC.

Efficient in Eco mode

The automatic solar screening reacts to time switching, scenes, solar sensor and to Eco or absence scenes, wherein the blinds are generally closed. Individual room temperature control for heating, ventilation and air conditioning contributes to energy efficiency, using adjustable operating modes, automatic temperature profiles, window contacts

and a link with the scene control system. In addition, an energy management function is activated in Eco mode which operates lighting, solar screening, pool heating and heating, ventilation and air conditioning more efficiently using dimmer functions, lower target settings and shading.

Appealing user interface

KNX controlled monitoring functions take care of security; for example, using movement sensors, door and window contacts and video cameras. Panic functions are also included. A high performance multi-room control for audio and TV with 16 zones and comfortable entertainment technology streams music to all rooms.

The fixed installed touch panels of varying sizes with exclusively designed visualization look very impressive. As the visualization client communicates with the central network server there are many options for operating the system. For example, the owner can use his own MacBook to operate the system from anywhere in his house.

Benefits provided by KNX in this project

- The system facilitated the installation of numerous interesting features for this 'intelligent home' and the integration of other systems so that all functions and media can be controlled and operated via one visualization.
- An energy management system for lighting and temperature control, which is activated via the Eco mode, ensures a reduction of about 20 percent of energy consumption for lighting, space heating, solar screening and pool heating.
- Comfortable lighting with pre-programmed lighting scenes for different events and uses, and mobile operation options.

Technical refinements

- Dynamic and interactive user interface with attractive graphics, operating and configuration options, web services such as weather forecast, email, Google Maps etc.
- Interfaces for Mac, Windows and Linux which are independent of operating systems
- Pre-settable and modifiable scenes for lifestyle, Eco mode, nighttime and daytime operation etc.
- Bi-directional KNX/RS232 interfaces with the swimming pool technology for the control, display and setting of water temperature, target settings, PH value, control of the water features etc.
- Control of gas valves for six fireplaces.

Participating companies:

Building owner:

Eddie Murray, Los Angeles, California USA

Architect:

Design Control Inc., Culver City, USA

Services Engineers:

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Heating/ventilation/air conditioning:

Carrier, USA

KNX System Integrator:

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