

CASE STUDY

PEAKnx + Airzone solution
transforms a high-tech villa



Compatible with

+160 **+40.000**
HVAC brands units

  **TOSHIBA**
and many more

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Superior comfort
you can rely on



PEAK^{NX}

AIRZONE

PEAKnx and Airzone join forces to provide a fast and reliable way to **integrate air conditioning (AC)**. This partnership delivers superior comfort, energy efficiency, and unified control with seamless integration and dependable performance.



Ensuring superior comfort

Temperature is a key factor in the perception of comfort. Integrating AC control ensures that optimal temperatures are maintained throughout the smart home.



Reducing energy consumption

HVAC systems are the most energy-intensive installations in a home. Smart home integration allows for more efficient temperature regulation while reducing energy waste and lowering utility bills.



Meeting client expectations

Users expect a smart home to provide comprehensive control over all subsystems. An integration project that excludes or only partially controls the HVAC system falls short of these expectations.



The challenge

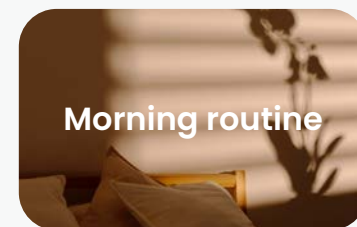
When the high-end luxury villa “Casa Verde” was commissioned in the outskirts of Barcelona, the goal was to create a state-of-the-art smart home that seamlessly integrates all systems for ultimate comfort and energy efficiency. The villa’s owners, tech enthusiasts with a keen eye for detail, demanded an environment where every subsystem —lighting, security, HVAC, entertainment— could be controlled from a single, intuitive interface.

However, integrating the villa’s advanced HVAC systems, which included multiple inverter units, posed a significant challenge. The existing solutions involved lengthy integration processes and custom setups, often leading to repeated after-sale calls and visits to fine-tune the system, causing frustration.

The solution

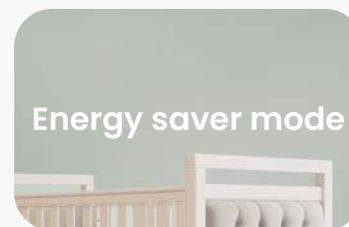
The integrators decided to try the joint solution of **PEAKnx Control 12 Touch Panel with the PEAKnx YOUVI visualisation software and Aidoo KNX by Airzone**, drawn to this combination for its integration capabilities and user-friendly installation process.

Some automation scenarios implemented



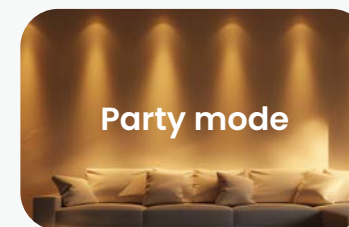
Morning routine

Gradual increase in temperature in the bedrooms, coordinated with the raising of blinds and activation of soft lighting.



Energy saver mode

Automated adjustment of HVAC settings when rooms were unoccupied, triggered by motion sensors.



Party mode

Pre-set climate control settings in the living and entertainment areas, integrated with the villa’s lighting and audio systems.

Results

The PEAKnx + Airzone solution exceeded the requirements set for Casa Verde. The fast and easy integration met users’ needs in terms of features and project completion dates, helping integrators ensure the project’s profitability by significantly shortening HVAC integration time and eliminating the need for additional adjustments.

How it works: Solution architecture



Aidoo KNX: The key to reliable control and integration

Aidoo KNX was developed in collaboration with HVAC manufacturers to provide an easy and dependable way to integrate AC units into KNX smart home systems.

- ✓ **Two-way communication:** Solid and accurate control of AC units by confirming actions and detecting errors, ensuring consistent performance.
- ✓ **Configurable digital inputs:** Three digital inputs for action automation, enabling customized responses and enhancing overall functionality.
- ✓ **Powered by KNX bus:** No external power source required, reducing clutter and simplifying the setup.
- ✓ **ETS configurable:** Easy configuration within the ETS, streamlining the integration process for optimal performance.
- ✓ **KNX certification and interoperability:** Full compatibility with other KNX devices, allowing seamless integration into any smart home setup.
- ✓ **Autonomous operation:** Works alongside the AC unit’s original controller, ensuring that all built-in functions and reliability are preserved.