

# Case Study

## FasBAC for INNCOM

### Development of a New Product

#### Situation:

A major hotel chain that uses the INNCOM International Inc. INNcontrol system as its guest room management system solution, needed to integrate the guest room management system with its Building Management System (BMS). This would allow them to centralize monitoring and control of energy usage throughout the hotel facility and to implement global energy conservation strategies.

The INNcontrol system had available a proprietary application programming interface (API) for custom systems integration. The BMS was a Johnson Controls Extended Metasys Architecture BACnet system.

AFDtek saw the market potential for a BACnet product for the widely used INNcontrol system that would provide owners of properties with the INNcontrol system with an off-the-shelf interface to the most important integration protocol in the building automation industry, BACnet.

An off-the-shelf product would provide the hotel chain with a cost effective solution for integrating its INNcontrol systems at any of its properties with BACnet building management systems.

#### Objectives:

- Be compatible with both the serial RS485 and Ethernet network architectures of the INNcontrol system
- Expose as BACnet objects all the parameters of each room thermostat available on the INNcontrol system
- Minimize the installer's time for engineering and commissioning the installation of the product with the INNcontrol system

#### Challenges:

The INNcontrol system provides as many as 10 parameters for each room thermostat. Hotels may have hundreds of rooms. This would translate into thousands of BACnet objects. How best to present many BACnet objects to the BACnet user?

The BACnet interface would need to be configurable by the end user to tailor the BACnet representation of the INNcontrol system. The end user might want to see only a subset of the room thermostat parameters on BACnet. Performing configuration on thousands of BACnet objects would be an onerous task. How best to provide configuration flexibility while minimizing the amount of engineering that was required?

#### Strategies and Solutions:

In order to provide a default out-of-the-box BACnet object organization that provided a logical grouping of the INNcontrol system room thermostats and their parameters, FasBAC For INNCOM presents each room thermostat as a separate BACnet device. Each of the room parameters is presented as a standard BACnet object in the room thermostat device.

In order to minimize engineering effort, FasBAC For INNCOM will auto-discover all the room thermostats and automatically create the BACnet thermostat devices and parameter objects. The data of the BACnet objects are saved in a text file in a Comma Separated Value (CSV) format to facilitate editing with commonly available software tools such as spreadsheets.

The end result was a solution that takes only a few hours of engineering and commissioning time to map several hundred room thermostats and their associated parameters to the BACnet based building management system for monitoring and control.

## **Project at a Glance**

**Client:** GW Marriot

**Field:** Hospitality industry

**Location:** Grand Rapids, Michigan

**Project:** Hotel Room Management System integration with BACnet

**Date of Completion:** July 2007