CASE STUDY

FRANKFURT HOTEL LOOKS AND FEELS GOOD

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With its spectacular circular shape, the new Radisson SAS 'Blue Heaven' Hotel in Frankfurt makes an eye catching addition to the city skyline. Opened in November 2005, it also intends to impress with the high standard of comfort that it is able to offer its guests. Playing an important part in this is a Trend building management system that provides individual control of the air conditioning in every single guestroom. The BMS has been interfaced with the hotel's front office computer which helps prevent energy waste, and also with the fire damper controls. It was supplied and engineered by Stangl GmbH (one of Trend's German network of accredited systems integrators), who was appointed by the main contractor on the project, HOCHTIEF Projektentwicklung GmbH.

The 20-storey Blue Heaven hotel has 450 bedrooms, a conference suite, a ballroom and – 18 floors up – a swimming pool. Every bedroom is air conditioned by a fan coil unit fitted with a LonMark compliant Trend IQL15 controller. The latter regulates the room's temperature by modulating the FCU's heating and cooling valves and controlling its fan speed. Guests can adjust conditions via a wall-mounted panel.

When a guest checks in, the IQL automatically starts controlling room temperature to the occupied setpoint. On check-out it reverts to a setback level. This is possible owing to the interface between the BMS and the hotel's Fidelio front office system, data from which is communicated to the IQL controllers via a Trend OPC server. The IQLs connect to LonWorks communication buses (two per floor), which in turn link to an internetwork that runs the full height of the building. Also connected to this are an Ethernet-based '963' supervisor (the system's main operator interface), plus the OPC server and the IQs that control the boilers, chillers and main air handling plant. The whole installation functions as a single integrated system.

Through the '963' supervisor, the technical manager and his staff can not only adjust system control settings and view data relating to the HVAC plant but are also able to monitor the position of its 610 fire and smoke dampers. (Should any of the latter inadvertently close the '963' would generate an alarm). The BMS interfaces with the LonWorks based electric system via Trend LONC gateways. It connects to the Modbus-linked RK-Tec fire damper controls via a modified Trend XNC interface developed specifically for this project.

Authorised personnel are able to access system settings and monitored data from almost anywhere in the hotel using just a laptop running Internet Explorer, which is all that is needed to create a 'client' 963 supervisor. They can do this from any of the guestrooms, all of which have wireless LAN access to the Internet – and through that to the 963 server. On the plantroom control panels there are IQView touch-screen operated displays; from any one of these any part of the BMS can be interrogated.

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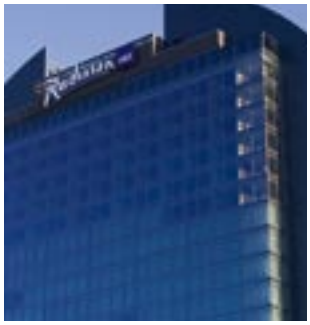

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