

GRAND | HYATT®

TAMPA BAY

The 13 story Grand Hyatt, Tampa Bay hotel, is located inside a 35-acre nature preserve just outside downtown Tampa, Florida. It recently underwent a \$16 million dollar renovation that has ensured the Grand Hyatt's reputation for being one of Tampa's premier luxury hotels.

CASE STUDY



THE CHALLENGE

Advanced Automation was given a challenge by Stewart Engineering Consultants Ltd. of Sarasota, Florida, and the owner, UBS. They were asked to provide the hotel occupants with complete temperature control of their rooms while still maintaining humidity control in all 400 rooms without using supplemental heat.

The Hyatt was having difficulty with providing a completely hypoallergenic sleeping environment due to elevated humidity levels.

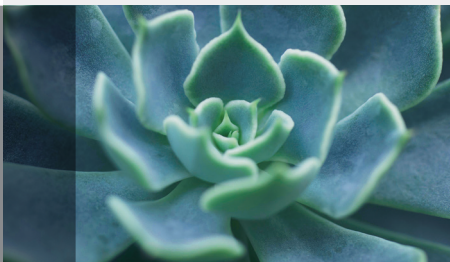
The tropical environment on the West Coast of Florida can overtax most BMS systems. Hotels always present an added complexity by needing to satisfy the hundreds of different environmental needs for each guest room independently while still maintaining overall control of the building's central systems and reducing total energy expenses as much as possible.

PARTNER



Since 1995, Advanced Automation Systems, Inc. (AAS) has been assisting schools, hospitals, cities, counties, airports, private developers, churches and the military with the automation of all the various systems within the buildings they manage. AAS is a full service building automation contractor serving the West Coast of Florida and a factory authorized representative for Delta Controls (HVAC, Lighting, Access) and Vicon CCTV Systems.

Every year, this renovation will save 464,000 kWh of electricity, and reduces CO2 emissions by 110 tons. All of this adds up to an annual savings of \$37,000.



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With a yearly average of 74% relative humidity, traditionally, the only option was a reheat dehumidification system. While effective, the energy cost is prohibitive through over-cooling then reheating air back to the user's

setpoint rather than simply being able to control the temperature directly.

There had to be a better way.

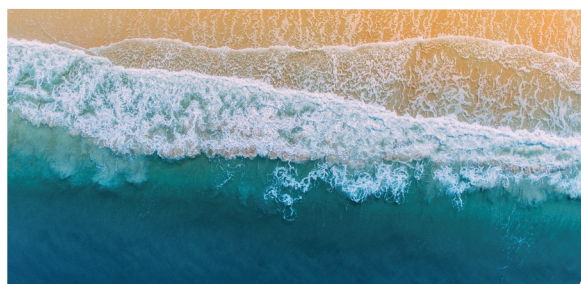
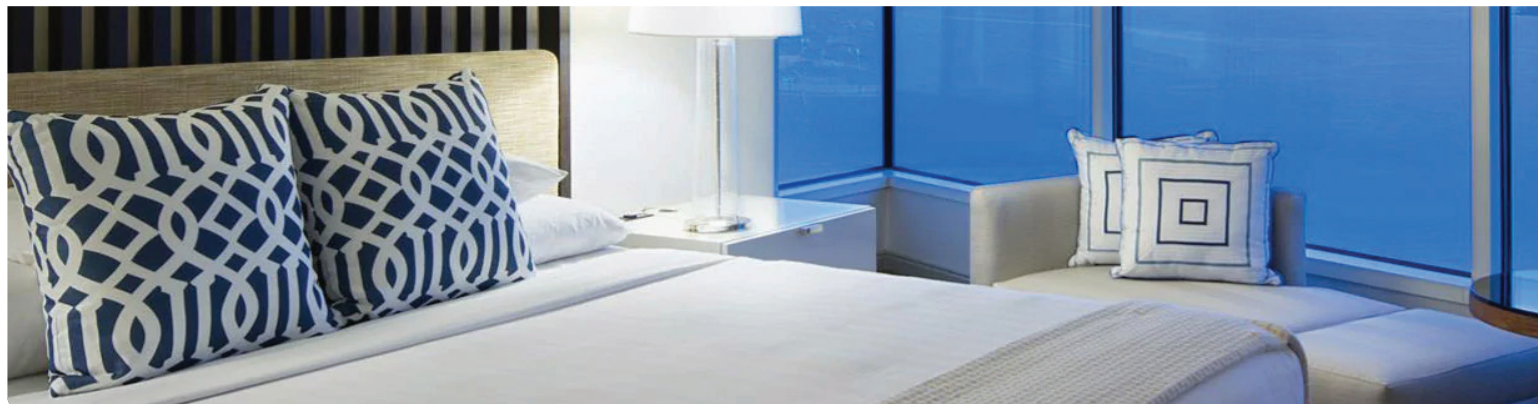
To find out how Delta Controls was able to overcome this challenge, please turn over. ▶



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TAMPA BAY

444-room coastal contemporary, waterfront hotel in a relaxed, natural setting offering 47 casitas, 24 suites, exclusive Grand Club accommodations, three restaurants, two swimming pools, tennis courts and water sports. Rated four diamond by AAA and three stars by Mobile. Ideally located less than 3 miles from Tampa International Airport with nearby shopping, golf beaches, golf and attractions.



“

We've been really impressed with how Advanced Automation Systems were able to solve our problems using Delta Controls, and are happy we made the switch. We are looking forward to similar success through our next renovation phase. ”

Timothy Hotter
Senior Director of Engineering
Grand Hyatt
Tampa, Florida, USA

THE SOLUTION

A two-part plan was implemented to deal with each room individually as well as centrally dehumidify at the primary rooftop air handlers. In the guest rooms, the fan coil cooling coils were replaced. This allowed more capacity to remove excess moisture while new HPT heat pipe systems were added to the existing air handling units. AAS provided a complete control package including modulating chilled water valves and humidity sensing via Delta's DNS-H24 space sensors, DAC-322 controllers installed in each room's fan coil unit, and eBCON modular controllers within the central plant. All hardware comes back to a new ORCAview operator workstation located in facilities, complete with a dynamic 3-D graphic package.

eBCON

Modular central system controller

DNS-H24

Network thermostat with on-board RH

DAC-322

Small form factor programmable controller

ORCAview

Powerful Local operator workstation

THE BENEFITS

The primary goal was to enter a guest room without feeling the moisture in the soft furnishings, and what was delivered exceeded this goal by a wide margin.

The new control strategy implemented by AAS will save \$37,000 yearly! Even when the humidity is above 75%, and temperatures are soaring, the guest rooms at the Grand Hyatt will always be a comfortable 60% RH.

One of the key selling features for Grand Hyatt hotels is their PURE - Hypoallergenic Rooms. Through PURE's filtration processes coupled with the complete BMS control package by AAS, 99% of pollutants are removed from the guest rooms and can provide the highest air quality to their guests. Without the ability to control the humidity within the guest rooms, there is no way that the hotel would be able to achieve the high standards that PURE sets out.

THE RESULTS

From the first three test rooms, AAS was granted not only the guest rooms but all ongoing renovation phases throughout the entire facility and associated private suites. The next steps at the Tampa Grand Hyatt will be common areas and conference room air handlers. From there, work has also been scheduled for extensive BMS renovations at the neighboring Bayport Plaza.

By the numbers, this has been an astonishing success:

- ▶ 464,000 Kilowatt hours saved each year
- ▶ \$37,000 in yearly savings
- ▶ 110 ton reduction in CO2 emissions
- ▶ 3.5 year ROI



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