

# New York City Relies on Automation Technologies to Face Challenges of Urbanisation

The operating complexities of the two enormous square sunken pools located at the National September 11 Memorial and Museum, where the two towers of the World Trade Centre used to stand, require a master control system with a sophisticated architecture and onboard central processing units. Delta Fountains collaborated with Siemens Industry for this project and their solution was the Siemens Simatic S7-300 master controller that provides local control for the motorised pumps that keep each pool's water moving at 135,000 litres per minute and filtered at 27,000 litres per minute. The Variable frequency drives (VFDs) also reduce energy consumption and carbon emissions over time because they can continuously drive the 16 pump motors in each pool at optimal speeds, ensuring a sustainable solution while reducing maintenance costs.

With the master controller, the engineers can take real-time inputs from sensors just about anywhere in the pools and plumbing that measure temperature, pressure, chemistry, wind and much more, then, use the data to automate the controls and keep the water and systems in balance. The Siemens automation and control components are based on Totally Integrated Automation, which enables adaptability and flexibility of technology solutions. The automation solution allows daily operations to be controlled remotely from 1,600 km away at their base in Jacksonville, Florida, allowing Delta Fountain engineers to avoid the additional costs of living in New York.

*(Sourced from The Star, 14 May 2013)*