

Bryanston School in Dorset –A SeaChange Case Study



Sanger Centre for Mathematical and Science

Client :

Bryanston School

Publicstar Services:

Design, Supply and Install Energy Efficient heating controls for radiator circuit and underfloor heating.

Main Contractor:

Dean & Dyball

Project Duration:

August 2006- January 2007

Values:

£ 37,000

Benefits:

Energy Efficiency and reduced commissioning time

The School occupies a magnificent 400 - acre estate in North Dorset, just outside the Georgian market town of Blandford Forum. The main building, a palatial country house in red brick banded with Portland stone, was designed for the Portman family by Norman Shaw and completed in 1897.

The Sanger Centre opened in September 2007 and is named after Dr Fred Sanger who is renowned as one of only four individuals ever to have won two Nobel prizes, and is one of the oldest living Bryanstonians.

The new building features 15 state-of-the-art laboratories, Maths classrooms, expanded assignment rooms with extensive networked computer provisions, and a 120-seat lecture theatre fully equipped for scientific and multimedia presentations.

The building is heated by two independent heating systems with a radiator circuit on the outer perimeter of the building and underfloor heating on the inner perimeter.



The radiator circuit is controlled by a SeaChange Zone Setpoint Scheduler installed on the front of the Mechanical Control Panel located in the Boiler Room. This controller will increase the Radiator circuit setpoint as modified by the outside temperature.

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The underfloor heating has 15no. Zones all individually controlled by SeaChange Zone Controllers. The SeaChange BMS modulates each respective zone valve based on the Zone temperature. Therefore as heating load increases or decreases and the sun moves around the inner rim of the building the zone valves are opened or closed accordingly. Each zone also has optimum start/stop.

The Lecture Theatre is heated from the radiator circuit with a bypass valve and separate small pump. This ensures that the Lecture Theatre can be heated out of normal school hours without heating the entire school.



The Sanger Building is now added to the Arts & Drama building completed by Publicstar with SeaChange BMS in Nov 2005.

The School Maintenance department has access to the SeaChange BMS in both buildings via bespoke BMS graphics connected to the Schools Ethernet. This Ethernet connection also allows remote secure access by Publicstar to provide maintenance.

SeaChange
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Accredited SeaChange Installer