CASE STUDY

NEW MARLOWE ACADEMY FOLLOWS "GREEN" APPROACH TO BUILDING MANAGEMENT

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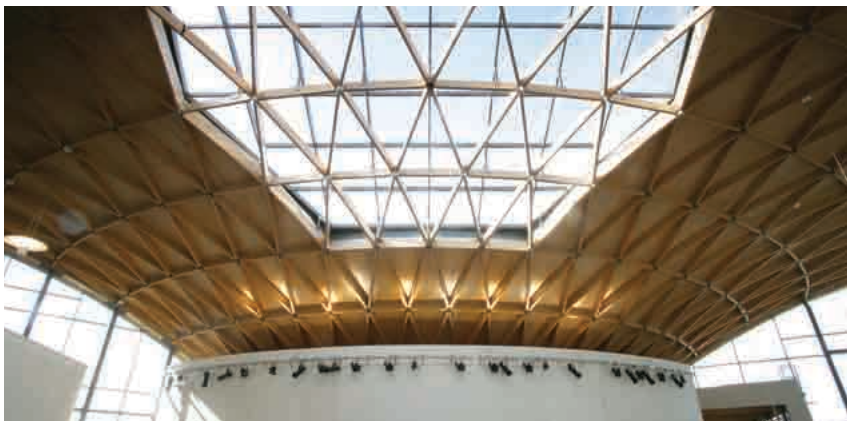
All educational establishments face the challenges of increased energy prices and ever greater government demands for energy efficiency, against building management budgets that are tighter than ever. The new Sustainable Learning initiative (www.sustainablelearning.info) challenges schools in England to reduce their environmental impact, while requiring schools with floor areas over 1000m² to display a Display Energy Certificate (DEC). This shows energy use (converted to CO2 emissions) on a scale from A (best) to G. The DEC enables pupils and teachers to see how energy-efficient their school is and encourages pupils to minimise energy consumption.

These energy demands are inevitably a huge challenge to those responsible for managing the buildings, but are well understood by Trend Control Systems, which has a long and unrivalled track record of providing energy efficient building controls to schools and universities throughout the UK.

Among recent projects benefiting from Trend building controls technology is the Marlowe Academy. This newly built Performing Arts and Business Academy in Ramsgate serves over 1000 pupils aged from eleven to eighteen. The Academy resulted from a joint initiative by the Department for Education and Skills (DfES), Kent County Council and a private sponsor, with the aim of creating a landmark educational facility to replace the poor performing Ramsgate High School, whose low performance was linked with being in one of the most deprived districts in Kent.

The architects and consulting engineers, Building Design Partnership, were briefed to consider the requirements of each user / stakeholder group. They created a building design that provides a superb environment for school users as well as for a broad range of community activities. As a result the building is a community resource, rather than just a school. It already includes the branch library, and is capable of expanding to host additional sports, academic and performance facilities with development of use by the community.

BDP took a particularly "green" approach to building services. It used motorised perimeter windows, atrium passive ventilation and energy management control that provides heating to each classroom space only when occupied. A Trend Control Systems partner company, Total Control Services Ltd, installed a Trend building management system (BMS) complete with individual room window control, passive infra red detection to detect room occupancy, and temperature sensing. This has been achieved through Trend IQ3 controllers located in floor voids and risers throughout the building.



TREND

The project has six motor control centre (MCC) panels, five packaged air handling units (AHUs) each fitted with Total Control MCC's by the manufacturer, and 14 small Trend IQ3 controllers to provide local control and management of each individual space. The Trend system communicates via site-wide Ethernet to a Trend 963 web-enabled System Supervisor: this well-proven Trend Supervisor can deliver pages to any PC on the network using standard browser software, for monitoring and control.

The Marlowe Academy is one of numerous schools and colleges which have benefited through energy-saving controls from Trend Control Systems. Case studies of many more examples of Trend systems installed in educational buildings can be viewed by clicking the "Applications" tab on the company's web site at www.trend-controls.com.

Total Control Services Ltd can be contacted on 01732 770 773, or by email at total@total-control.co.uk

Trend Control Systems Limited
P.O. Box 34, Horsham, West Sussex, RH12 2YF, UK.
Tel: +44 (0)1403 211888 Fax: +44 (0)1403 241608 www.trend-controls.com
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