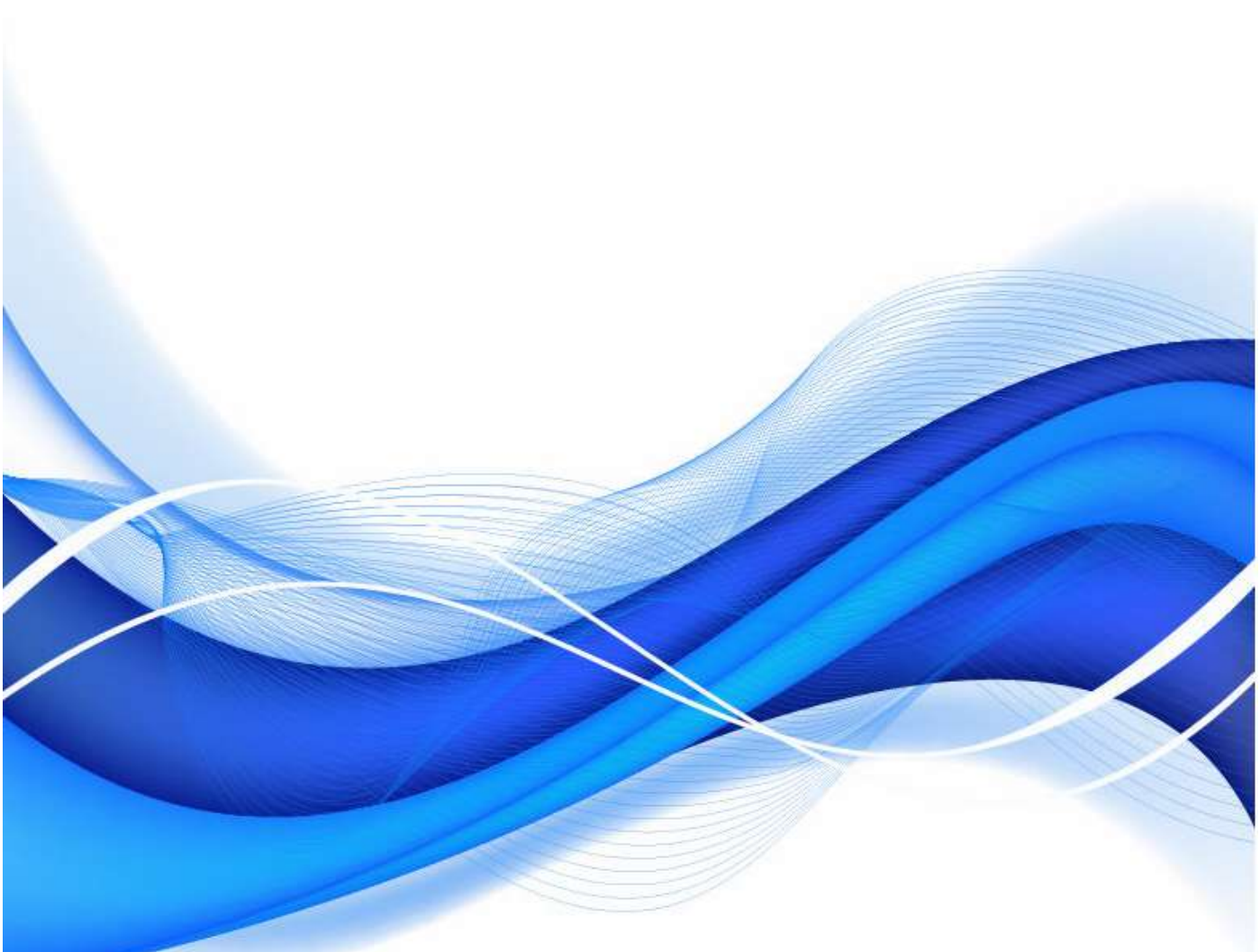


BMS Controls  
Energy Management  
Integration  
Remote Monitoring

**TRI**

*Control Systems Ltd*



## TRAINING CENTRE PROJECT

BP have constructed a new training centre at their Sunbury on Thames Centre for Business and Technology, as part of their ongoing commitment to staff development. BP decided to construct an upstream learning centre in the UK, to supplement the learning centre already in use in Houston, Texas.

Due to the various types of training that is required from the centre, there are a number of different suites within the building with very specialised environments and equipment. This also created a need for a highly specialised and flexible environmental conditioning system.

The building incorporates 17 Air Handling Units, the majority of which are for specific rooms. Each enables close control of temperature, humidity and CO2 within the space, and can also cope with the high cooling load generated in the spaces by the audio visual and computing equipment.

TRI Control Systems needed to deliver high level integration between the AHU's, the custom developed room controls and the audio visual system. This was achieved with a number of different technologies, all using BACnet IP protocol, and has achieved a seamless interaction between the systems.

TRI also integrated the new building into the existing side wide Trend 963 supervisor, allowing the onsite maintenance team full access to the system from their maintenance office on another part of the site.



MAX FORDHAM

*Working closely with BAM Services Engineering and Max Fordham LLP, TRI Control Systems have delivered a highly technical and energy efficient building control system for BP's ULC.*

The building also incorporates a ground source heat pump, which provides the majority of the heating and cooling required for the building.

The BMS system needed to manage the borehole pump sets and heat exchangers and ensure that the backup boilers and chiller operate when required.

Working closely with the consultants an efficient system has been developed that makes sure the most efficient plant is always been used.



Another energy saving strategy implemented in the building is a heat recovery system, whereby the warm extract air from the comm's rooms is recovered and fed into the large, open plan, collaboration space. TRI needed to develop a custom strategy to synchronise the two packaged air handling units using BACnet communications and integrate these with the motorised dampers that control the airstreams between the two spaces.

Due to the advanced audio visual systems that have been installed by BP, TRI were also required to integrate the BMS with the AMX A/V system. This enables the users of the rooms to control the environmental conditions from their AMX screen, as well as the lights and blinds for the room.



The Upstream Learning Centre for BP was a challenging project, due to the technical and construction challenges faced during the construction program.

However, TRI Control Systems have delivered a BMS system that utilizes a number of different technologies to create a highly integrated control system that is easy to use for the wide range of purposes the building is designed for, whilst ensuring it is an energy efficient and environmentally sound addition to BP's campus.

## TREND CONTROLS

Trend is a major international supplier of building energy management systems (BEMS) with a worldwide distribution and support network covering over 50 countries.

As a Trend Technology Centre TRI Control Systems have access to the full range of Trend Controls, including the 963 supervisor and IQ4 controllers.

TRI also have 'Trend Expert' accredited engineers, ensuring the very best implementation of the BMS control system.

# TREND



963 is a graphical, real-time, user interface for the building control system. It enables the user to monitor plant or building services, and make changes to the way the building is controlled from a graphical display.

The security system ensures that the user is only presented with information and functions that are relevant to their authority or task.

It is also compatible with the Trend Open Protocol Server (TOPS) which allows values from supported 3rd party systems (such as BACnet) to be included in schematic pages, adjustments to be made, and alarms received.

Please contact us on 01895 257500 for information on Trend BMS control systems



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