

Top Ranking UK University uses ICONICS' GENESIS64™ for new Secure Data Network

Overview

Project: Campus-wide BMS

Industry: Building Management

Duration: On-going (12 months)

Customer Profile

Founded in 1876, the University taught approximately 20,000 students in 2010/11 in some 25 academic schools arranged into six faculties.

Business Situation

The University was looking to create a physically secure data network for the estates department which integrates all of its facilities across a wide geographic location. This would allow for reduced maintenance and operations costs and visibility of the entire estate from a single head-end visualisation.

Solution

Cougar Automation Ltd provided a totally integrated Secure Data Network Building Management System.

Benefits

- Single operator interface
- Connectivity to wide range of devices
- Centralised alarm management
- Access from anywhere
- User friendly
- Scalable and future proof



Visualize Your Enterprise™

The University is one of the top ranked universities in the UK with 25 academic schools arranged into 6 faculties. The University owns over 600 hectares of land in and around the city and makes use of over 370 buildings. Teaching and research are concentrated in the University Precinct together with nearby sites.

The University's building stock is varied. The buildings range in age from late 17th century to 21st century. Many are purpose built, from Biological Sciences and the Wills Memorial Building dating from the 1920's, through the 1960's Students' Union Building to the late 1990's Merchant Venturers Building and Synthetic Chemistry Building.

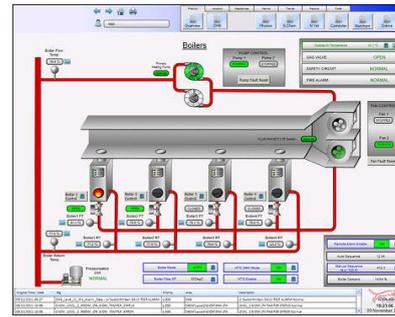
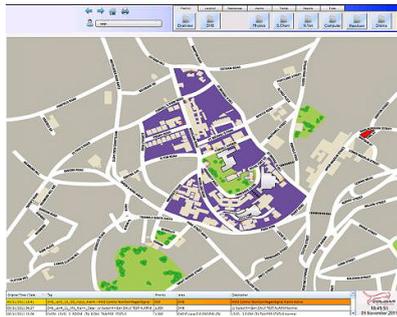
With such a large number of buildings, estate management is very important and so a high priority requirement was to integrate the buildings together to provide a secure, future proof centralised building management solution. For this task the University turned to Cougar Automation Ltd and GENESIS64™.

GENESIS64™

"Your technical support system, and definitely the way that the same person deals with specific projects, is the feature which in my view lets ICONICS stand above the competition."

Richard Hallett, Principal Engineer, Cougar Automation Ltd.

“ICONICS now have the software tools at their disposal with GENESIS64™ to ensure that the solutions we deploy are ready for tomorrow.”



Situation

With over 370 buildings ranging in age from late 17th Century to the 21st Century across 600 hectares of land, the Estates Office of the University has a tough job in supporting the University's corporate objectives:

- Providing all departments of the University with flexible, well maintained accommodation of an appropriate size, quality and functionality.
- Maximising development capacity of all major sites and ensuring the most efficient use of all built space
- Continuing to work to reduce the carbon emissions of the University
- Delivering an ambitious capital programme to build new space where required and to renew and regenerate the existing estate.

To help achieve these objectives, especially carbon emission reduction, the Estates team required access to information across the entire estate.

To that end the University commissioned the Secure Data Network (SDN) project with the following aims:

- Physically secure network for the Estates Department.
- BMS, Fire Monitoring, Critical Alarms, Sustainability Monitoring & more.
- Connection of facilities across a wide geographical location

Requirements fulfilment

The University was looking for a modern, future proof solution platform that would allow them to continue to build in new capabilities as new equipment and buildings were connected to the SDN.

With that in mind they selected Cougar Automation Ltd, a Microsoft Certified Partner and winner of numerous customer experience awards, who in conjunction with ICONICS, provided a GENESIS64™ based visualisation solution.

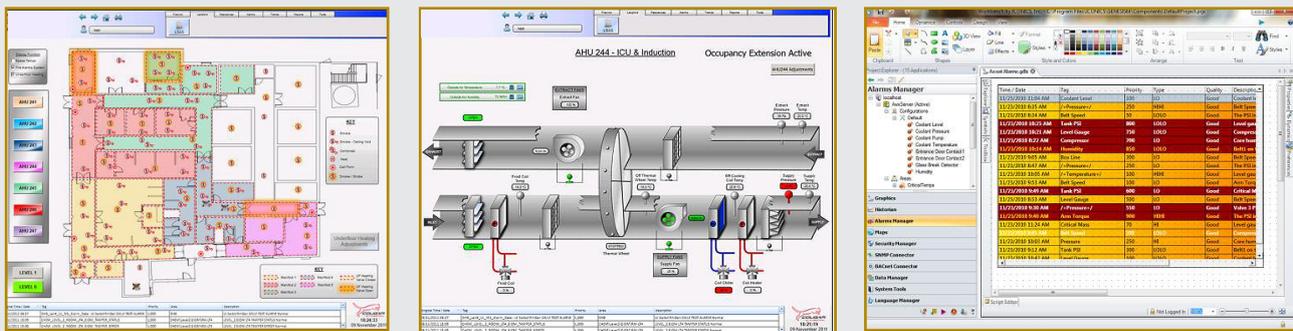
Cougar Automation Ltd was able to provide a solution that met the SDN requirements which were:

- Able to connect to a wide range of devices
- Centralised Alarm Management
- Access from anywhere
- User friendly
- Scalable and future proof

By leveraging the open GENESIS64™ infrastructure using OPC technology, SNMP, Web Services, BACnet and OLEDB, and utilising the 64-bit web-based architecture, Cougar Automation Ltd created a modern consistent user interface which could be accessed from a web browser anywhere within the University network and allow the Estates Office to control and manage the facilities.

“The ICONICS platform is very intuitive and user friendly and we are very happy with the product. It is more than capable of doing everything that we initially want it to do regarding the BMS and critical alarms communications, alarm handling, data storage and archive data handling. We will be extending it to incorporate security systems in the future and further extending it to incorporate as much as we possibly can because the system can handle it all.”

University Project Officer



Technology for Project Deployment

One of the key benefits of using GENESIS64™ for the Cougar project engineers was the capability to perform remote web-based configuration through the WorkBench64. By enabling remote configuration, project engineers from other Cougar offices were able to collaborate and work on the project together with the Bristol-based engineers all on the same server at the same time.

This reduced the overall project engineering costs and enabled the work to be completed much faster. This remote configuration capability also allowed the ICONICS application support engineers to assist the project team much more quickly.

The comprehensive alarms management capabilities in GENESIS64™ also allowed critical BMS alarms to be routed to the Estates Security Office during nonworking hours, by raising and lowering their priorities automatically, ensuring that critical facilities are continuously monitored 24hours a day.

In addition to the standard SCADA capability that GENESIS64™ was able to provide to the project, the Cougar project team also utilised ICONICS BizViz™ integration capabilities.

Together with a calendar scheduler to integrate and manage the Trend IQ2 and IQ3 BACnet controllers across the facilities, this provides a single consistent head-end visualisation for all BMS functions allowing the University to reduce training and maintenance costs, another key driver of the SDN project.

The end result was exactly what the University was looking for. According to the University Project Officer, “The ICONICS platform is very intuitive and user friendly and we are very happy with the product.

It is more than capable of doing everything that we initially want it to do regarding the BMS and critical alarms communications, alarm handling, data storage and archive data handling.

We will be extending it to incorporate security systems in the future and further extending it to incorporate as much as we possibly can because the system can handle it all.”



Active Development

Due to the nature of the deployment, a collaborative approach to the project was undertaken by ICONICS application support engineers and Cougar Automation Ltd.

This close collaboration enabled the project to succeed and the relationship between the two organisations is summed up by Richard Hallett, the principal engineer for the University SDN project, who said "Your technical support system, and definitely the way that the same person deals with specific projects, is the feature which in my view lets ICONICS stand above the competition and is something that I would love to see continue. Please pass on my huge thanks to all the technical support guys, keep up the great work and I look forward to working with you guys over the coming months!"

One final extremely important feature had to be taken into account from the first, and this was to deliver future flexibility in both technical and operational spheres. During the selection process this was one strong driver for the University and Cougar Automation Ltd.'s selection of ICONICS as the core of the Secure Data Network project.

To summarise the University's Secure Data Network project:

- Over 20,000 data points.
- Scalable, future-proof application.
- Integrated, web-based single view of a campus wide BMS and critical alarms solution
- Leverages existing OPC data sources
- Integrates to BMS devices via BACnet and XML
- Integrates with Security Office
- Distributes alarm notifications using AlarmWorXMMX64TM

Case contact details:

Rich Hallett,
Regional Leader - South West,
Cougar Automation Ltd,
+44 (0) 7500 069105.