

# UNIVERSITY'S SMART THINKING DRIVES SUSTAINABILITY AND INTEROPERABILITY

With over 23,500 students from 80 different countries, Birmingham City University is one of the largest universities in the UK.

Steeped in rich heritage, the University constantly invests in improvements to their facilities, ensuring that students benefit from a state-of-the-art learning environment.

The University has recently invested £260m in a major campus development as part of an intelligent buildings scheme involving multiple sites and buildings. The programme started in 2009 and is due for completion in 2017.



As part of this Smart Building Scheme the University committed to investment in the latest building, fire and security technology to maximise building efficiency and performance. Integral to this scheme was the investment in Cortech Developments Datalog software. Datalog is a modular software suite that can be utilised as a single or multi user interface for the integration of a wide range of smart building technology.

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Senior Project Manager at Birmingham City University Steven Hipwell has been instrumental in delivering the scheme and commented, “The University is always looking at ways to evolve more intelligently and re-think technology delivery across our physical estates. Converting standalone systems into fully integrated smart systems delivers significant benefits including reduced risk and costs”.

It was back in 2006 when Birmingham City University first invested in the Datalog system increasing expansion of their systems to manage the development of their campus's local and remote estates. The software was installed within a purpose built control room providing two operational graphical user workstations for the integration of disparate manufacturers control systems across the University's campuses. This included closed circuit television cameras, fire detection, intruder detection and intercom call points.

## Cortech Developments



The number of systems and detection devices has grown significantly over time, all of which have been installed by various security and fire organisations. This offers the client the choice of best value for enhancing their systems whilst the software is supported by Cortech Developments.

In September 2013 Phase 1 of the upgrade was finalised and more recently Phase 2 was completed in June 2015. Further phases remain ongoing and involve the new Birmingham Conservatoire building, and the planned expansion to the City South Campus. This will see the relocation of the School of Education and increase the institution's health, nutrition and biomedical offerings.

Phase 1 required the University's security control room to act as a backup control facility for the City North Campus and therefore be fully controllable and operational in bi direction.

Cortech Developments Director, Mark Thomas, has worked alongside the team at Birmingham City University during the recent investment programme and has seen a major transition in technology delivery across the campuses.

Mark said "A lot has changed since the installation of the original system. Technology has advanced greatly and the University has had the foresight to plan for the future and ensure they maximise building performance, security and efficiency".

The University's smart building system comprises the Back Office Applications connected to the integrated systems via Microsoft's BizTalk through the use of the supported open protocols. In some instances the Back Office Applications are required to communicate directly with Datalog.

Mark added, "Due to the sheer number of buildings spread across multiple campuses, there is a common requirement and need for visibility and control of multiple systems and equipment. Integration, smarter interoperability and centralisation of such systems reduce risk, improve efficiency and provide greater situation awareness. Put simply, distance between sites and buildings is no longer a barrier."

Under the smart building management system and security management system there are a number of sub systems which includes bms, CCTV, access control, intruder and lighting utilising open protocols. All security and life safety sub systems are managed through Datalog located within the City Centre Campus.

Steven Hipwell said of the systems "Technology is evolving at great pace and the challenge for the University is to align ourselves accordingly and maximise the performance of our buildings. This means bringing our systems together to provide greater transparency and accurate visibility across the enterprise. This allows us to offer targeted services to improve the students' experience at the University."

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As part of Phase 1 the North Campus was upgraded from Datalog 4 to 5 so it could be used with existing legacy equipment. Datalog 5 was specifically designed to be backward compatible for future upgrades providing:

- Ability to utilise existing configuration / database for previous versions of Datalog
- Utilise existing graphic maps
- Interface to existing and new third party systems
- Minimum system downtime for system change

Phase 1 also involved the upgrade and back up for the City Campus Control Room. This was achieved with a new hardware and software build, which was pre tested with the North Campus control room upgrade whilst it was being pre- configured at Cortech's office.

The new City Campus and control room was a new build and required new graphic maps to be created. This involved a process of liaison with the Security Manager to agree elevation, orientation, pre-production, modifications and the final production for deployment.

The City Campus Control Room and Backup system were subject to an on-site practical working demonstration for the University to witness test correct operation.

Phase 2 involved the connection of additional buildings to the control room and integration expansion of existing legacy technology and latest assets for the new buildings.

Cortech Developments Datalog software is common place amongst many educational establishments throughout the United Kingdom.



## About Cortech Developments

Established in 1992, Cortech Developments is a leading provider of software integration solutions for building, fire and security systems. The company has a proven track record in delivering software development and integrated system solutions for high security environments and critical infrastructure, enabling organisations to reduce risk and operational costs, while achieving greater efficiency and situation awareness.

Datalog 5 is the Company's core product, a modular based software suite that has been developed as a single or multi user Graphical User Interface providing local and remote site monitoring and control for a number of prestigious sites. Datalog integrates with a wide range of control equipment including CCTV, Intruder, Fire, Access, Perimeter, Intercom, Staff Safety, Building Alarms, Cell Call, BMS and Energy systems. Cortech's solutions are deployed in 27 countries in key sectors such as Government, Military, Prisons, Custodial, Utilities, Transport, Healthcare, Education, Finance and more.

For further information about Cortech please visit – [www.cortech.co.uk](http://www.cortech.co.uk)