



A Building Automation System (BAS) is an example of a Distributed control system. Building automation describes the functionality provided by the control system.

The control system is a computerised, intelligent network of electronic devices, designed to monitor and control the mechanical and lighting systems in a building.

BAS core functionality keeps the building climate within a specified range, provides lighting based on an occupancy schedule, and monitors system performance and device failures and provides email and/or text notifications to building engineering staff.

The BAS functionality reduces building energy and maintenance costs when compared to a non-controlled building. A building controlled by a BAS is often referred to as an intelligent building system.

Most building automation networks consist of a *primary* and *secondary* bus which connect high-level controllers (generally specialized for building automation, but may be generic programmable logic controllers) with lower-level controllers, input/output devices and a user interface.

Controllers used for building automation can usually be grouped in 3 categories. PLCs, System/Network controllers, and Terminal Unit controllers.

PLC's provide the most responsiveness and processing power and may be used to automate high-end applications.

System/Network controllers may be applied to control one or more mechanical systems or they may supervise a sub-network of Controllers.

Terminal Unit controllers usually are suited for control of lighting and/or simpler devices.

**Express IT Automation are an independent provider of managed automation solutions.**

**We can pull resource and buying power from all of the Express IT group in order to provide user friendly, energy efficient and cost effective solutions to all aspects of Industrial, Commercial and Domestic fronts**

A Building Automation System is usually linked to a Building Management System which gives the user greater control and flexibility.

The purpose of a Building Management System (BMS) is to automate and take control of operations in the most efficient way possible for the occupiers/business, within the constraints of the installed plant.

**Building Management System (BMS)** is a computer based control system installed in buildings that controls and monitors the building's mechanical and electrical equipment.

Systems linked to a BMS typically represent 40% of a building's energy usage; if lighting is included this number approaches 70%. BMS systems are a critical component to managing energy demand. Mis-configured BMS systems are believed to account for 20% of building energy usage.

The level of control via the BMS is dependent upon the information received from its sensors and the way in which its programmes tell it to respond to that information.

As well as offering a precise degree of control to its environment, it can be made to alarm on conditions that can't meet specification or warn of individual items of plant failure.

## Specialised Services

Express IT Automation keep ahead of new technologies emerging within the industry. Fully trained Engineers are involved with the design, implementation and installation of Automation Systems ,Structured cabling Systems and Building Management Systems from the concept to the working infrastructure.

- Expertise and experience
- Flexible resource
- Quality of Service
- Smooth implementation
- Customer Focused
- Managed services
- Design Solutions
- Help desk
- Network Testing
- Network Architecture
- Cabling Infrastructure

**“Whatever the size of the task at hand you can rely on Express IT to provide the optimum solution. Our combined expertise, experience and interaction between managers, suppliers, installers and commissioning team all interact to encompass a future proofed conclusion for tomorrows needs today”**