

## Corporate Office

There is an ever increasing demand for flexibility and systems integration of the lighting control within Corporate HQ buildings. In this example, the drawing below details a part of one floor in a corporate building. It is envisaged that the lighting control system would be integrated with the Building Management System (BMS), but that it would also function independently.

In this example there are five offices, a circulation area and a corridor linking this zone of the building to other zones.

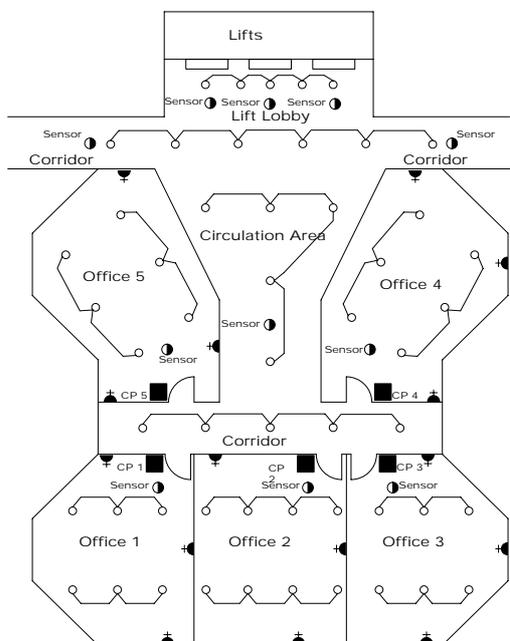


Figure 1

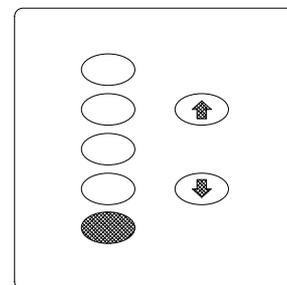
Each office would be provided with two circuits of low voltage tungsten halogen downlights, to provide a warm and relaxing atmosphere and to highlight artefacts within the room. There would be a table and desk lamp circuit and recessed low brightness fluorescent lighting for the working lights.

Within each office would be a PIR/PE sensor, a four scene programmable scene selector control panel and each of the occupants of the executive offices would be provided with a remote hand held IR transmitter.

The offices, corridor and circulation areas would be linked together and there would be a central time clock controller. This time clock would select a background lighting scene for the lift lobbies, the corridor and the circulation area at,

say, 7.30am. This scene would be at a low level, to provide enough light for safety and security, but at the same time to save energy. The system would be configured such that as a person enters this zone, either from the corridor from another zone, or from the lift lobby, a PIR/PE sensor will detect their presence, and trigger a working scene for all of the lighting within the corridors, circulation areas and escape routes. Between the hours of 7.30am and 8.30am, the system would have a time out so that if no movement were to be detected after, say, five minutes, then the lighting would return to the background lighting scene. From 8.30am to 6pm, Monday to Friday, once a sensor has been triggered, the lighting in the corridors, circulation areas and escape routes would be held permanently *on* at the working scene.

Once a person enters an office, the lighting would be triggered to a "welcome" scene by the sensor in that office. Note that outside normal working hours, this action would also "hold on" all of the lighting in the corridors, circulation areas and escape routes.



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Figure 2

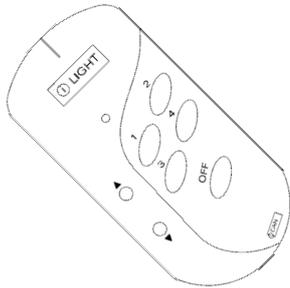
Once the occupant of an office has entered, they can choose to change the scene that has been selected automatically for them. By using either the wall plate, or the remote IR control.

The wall plate shown has four scene select buttons, an *off* button and a master raise and lower pair of buttons. Note that the *off* button would be preset to have a slow fade time, say, thirty seconds, to give the occupant time to leave the office before the lights fade out. All other scenes would be set to typically a three second fade time.

This control panel would be finished to match all of the other wiring accessories in the office. iLight™ offers a wide range of choices of control panel style and finishes to suite all styles and tastes.

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Figure 3



There are several options available for the iCAN™ remote IR controller. The unit shown, is a fully featured unit, which provides up to four scenes, master raise and lower, as well as *off* and programming capability.

For the user who wants simplicity, iLight™ can provide a two scene with raise and lower unit.

For orders in excess of 25 units, these remote IR controllers can have the clients corporate logo or name silk-screened on them at no charge. This reinforces corporate identity and assists in reducing loss of units through theft.

At the end of normal working hours, say, 6pm, the central time clock or the BMS would select a scene to fade down the lighting to a background

scene. After a further 30 minutes the lighting would be faded to *off*. If any person is still occupying an office or is in the corridors and circulation areas, they would restore the lighting to a working scene, either by being detected by a sensor, or by selecting a scene from the wall plate or remote IR unit. The central BMS would in addition receive a signal from the iCANnet™ network telling it that the floor was still occupied and then take the appropriate action. In some cases there could be an indication to security so that they would be aware of the presence of personnel working out of hours.

In addition to the control panels, sensors, time clock and dimmers, a General Purpose Systems Integrator unit would be used. This would provide two way communication to and from the BMS system in the building, as well as providing other inputs and outputs for such functions as window blind control, motorised curtains, fire alarms and an emergency generator signalling. Due to the modular nature of the iCANnet™ network, the dimmers and controllers may be distributed around the building for optimum use of the available space. In the event of the office partitions being moved around, it would be a simple matter to reconfigure the control system software. Power and control cabling would be unaffected, further reducing the cost of ownership of the control system.

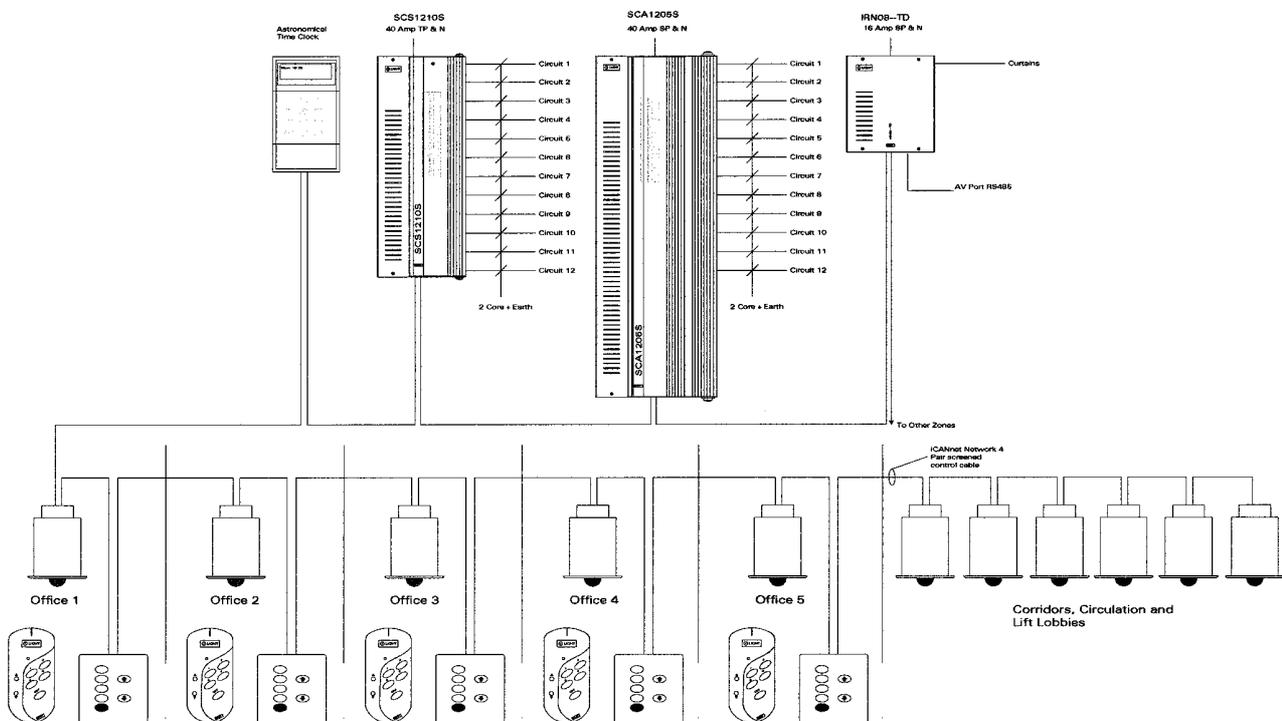


Figure 4, The block schematic diagram above details such a control system.

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Finally, should the client wish, iLight™ is able to provide an on-site PC, with a modem and iCANsoft™ programming and monitoring software. This purpose written software package is a simple to use and powerful tool. It can constantly monitor the operation of the iCANnet™ network, logs all network messages and stores them for future interrogation. If faults are detected an e-mail may be sent to the on-site staff advising them the location and the nature of the fault. If an iLight™ service contract is in place, then these e-mails can be sent to our service centre and an iLight™ engineer will go to site within 24 hours to rectify the fault.

Another advantage of the iCANnet™ system is that iLight™ is able to offer building wide control of the lighting in an economical and effective manner. For further details please contact our help desk on 01892 870072.