



Nelson Square, Bolton

Bolton Council Case Study:

Adding extra sparkle to Bolton's streets with enabling hardware and CMS software technology

Project Summary

Project name: Adding extra sparkle to Bolton's streets with enabling hardware and CMS software technology

Location: Bolton, UK

Completed: 2017

Products used: Lucy Zodion CMS, festive isolators, cut outs and control boxes

Background:

Lucy Zodion has worked with Bolton Council for a number of years to develop lighting solutions that meet the region's growing requirements. From centrally managed flashing LED school zone lights, to the controllability of the Borough's street lighting stock, Lucy Zodion and Bolton Council have worked together to ensure both specifications and budgets are met with effective lighting solutions.

The latest project that Lucy Zodion has been involved with is the development of a solution that helps manage seasonal lighting requirements. Bolton, like many other UK councils, has funding to facilitate festive lighting at specific times of the year that reoccur annually, such as Christmas and New Year.

In winter, not only does the existing lighting infrastructure need to remain illuminated for longer, but additional festive lighting schemes need to be implemented and controlled to help manage costs and efficiencies at the time of need.

Challenge:

In the lead up to Christmas, Bolton Council had a requirement to better manage the festive lighting schemes in place that would enhance the aesthetics of the region while ensuring additional running costs remained manageable. Lucy Zodion was challenged with providing a solution that met these requirements.

Key Objectives:

- The solution must be easy to manage by Council members in order to control the way lighting schemes work in specific areas of the region. Management must also be possible remotely, so testing and better control is possible in the field.
- In order to ensure lighting is effective at specific times, the solution must be easily programmable for the entire lighting network, as well as for groups of lighting in particular areas.
- As increased lighting is to be deployed throughout the region, more energy will be used, the solution must ensure cost and energy efficiency is considered to manage budget restraints.



Results:

The entire system now means that 42 trees, 75 Christmas displays and 30 cross-street lighting displays are illuminated effectively using a combination of hardware and software solutions, developed by Lucy Zodion. The scheme is:

Manageable – Using the existing Central Management System (CMS) the Council has in place, Bolton is now able to manage the entire festive lighting scheme, from one operation point. The CMS holds information about all the festive lighting in place, to help reduce resource use and improve the control the Council has over festive switching. This can be controlled from any location throughout the scheme either via text messaging from a mobile phone, or a CMS dongle control via a website, allowing a simple switch on or switch off 24/7 through a low powered node that controls 1000 watts, when needed.

Programmable – The entire festive scheme is managed within a grouped lighting network, where different rules and schedules can be put in place to create a more intuitive system. This means existing schemes run as usual with additional festive lighting working to a different set of requirements, simultaneously. Nodes in the scheme were programmed in-house at Lucy Zodion to the Council's specific requirements, to ensure software and hardware were compatible with one another.

Efficient – Low powered components were used to ensure running costs remained manageable, while offering optimum performance that considered energy efficiency. As the CMS was an existing asset, its use for the festive scheme helped ensure running costs were low as it can monitor performance of all lights in the region, finding faults quickly. This helps Bolton not only ensure the lights are working, but can pin point issues that need fixing swiftly and effectively – minimising costly down time and maximising festive requirements

Paul Worthington, Principal Lighting Engineer of Bolton council, comments on the system:

"As the Principal Lighting Engineer for Bolton Council, I can safely say that Lucy Zodion have been professional in dealing with both the delivery and CMS provision of the project, to meet the Council's needs in introducing equipment for the new festive electrical infrastructure installation for our procured festive lighting, with the ability to control and monitor the festive illuminations, which has been a success."

"The feedback from the end-users has been good, especially as we now have the ability to control and switch the 42 Trees that house Pea Lights, now in place. This assists us to have the pea lights illuminated for other Annual events such as the Iron Man UK and the Food and Drink. The Council's in house lighting maintenance team was happy with the ease of the infrastructure installation and the sub-contractors acting on behalf of MK Illuminations that install and remove the festive displays stated that it was a simple 3pin plug and play to which they wished other installations they cover nationally could be so easy."

Conclusion:

This project is currently up and running throughout Bolton City Centre to add extra sparkle to communal spaces. Encouraging further community activity through Christmas events and late night shopping, the lighting scheme is not only aesthetically pleasing but offers increased illumination in dark winter evenings.

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Solution:

Lucy Zodion's solution was to provide a system that not only helped the council schedule illumination times, but also enabled them to efficiently fault find for quick maintenance. This meant that a number of enabling hardware products were required for the new festive infrastructure, to physically power lighting schemes in place. The hardware and software used are:

- 105 x 32amp 3pin boxes control boxes using low powered CMS node, a festive Isolator, cut-out and a 3 pin plug socket to provide 1000 Watt Controllability to 105 cross street, wall bracket and column displays.
- 14 x 16amp 3 Pin control boxes using a low powered CMS node, a festive isolator, cut-out and 3 pin plug socket to provide 1000 Watt Controllability to 42 Trees (Pea Lights).
- All of which are controlled by the existing CMS, supplied by Lucy Zodion.