



RF Illuminates Searchlight warehouse operation



The past year has been one of mixed emotions for Manchester-based Searchlight, the leading importer and distributor of decorative lighting products. Sadness at the recent passing of both the founder Sir Sidney Hamburger and his widow Lady Gertrude contrasted with the joy of moving to a new warehouse and distribution centre.

Sir Sidney co-founded the company with his brother David immediately after being demobbed from the army in 1945. He possessed a sharp business brain which, combined with his dynamic personality and strong work ethic, ensured rapid growth. He was closely involved in the planning of the new facility, but sadly he did not live to see the fulfillment of his dreams.

Built on a 6.5 acre site, the 120,000 sq ft three storey state-of-the-art facility comprises a 15,000 sq ft showroom which is possibly the most impressive and modern in Europe, as well as a fully-equipped 95,000 sq ft high bay warehouse and second floor open plan sales and administration complex. The new warehouse currently has 13,500 pallet locations and the potential for significant expansion. The new premises was, appropriately, named after Sir Sidney and officially opened by Their Royal Highnesses The Earl and Countess of Wessex on the 25th July 2002.

The company's product range is sourced from the UK, Spain, Italy and China and there is a heavy emphasis on Quality Assurance. Searchlight's agents and teams of inspectors perform continuous checks on both raw materials and finished product to ensure that the highest standards are maintained. This commitment to quality control is unique in the lighting industry today and has enabled the company to acquire key accounts that include such illustrious names as John Lewis, BHS, House of Fraser, Alders and Littlewoods.

The prime motivation behind Searchlight's move to the new facility was its ambitious growth plan, coupled with a desire to further its reputation as a progressive and proactive supplier. The company's previous premises, which it had occupied since the late 1970s, were seen as a major constraint to future growth. Although the warehouse had a healthy 200,000 sq ft of floor space, it was spread over four levels necessitating the constant use of goods lifts. Since the 1980s Searchlight had been utilizing the warehouse management system of Birmingham-based Proteus Software, which had been enhanced to meet some specific needs of Searchlight. This 'marriage' of the two organizations ensured that Searchlight was running with a relatively efficient paper-based system that sufficed for almost two decades. However, the move to the new facility together with the tight operational parameters that key account clients required, caused the company to evaluate the switch to a paperless real-time warehouse system.

Having worked closely with Proteus Software for so long, Searchlight turned to them for advice on implementation of the radio frequency (RF) equipment required to transform the warehouse into a real-time operation. Proteus Software, in turn, had an established relationship with Bradford-based hardware manufacturer **Belgravium** has a long-established track record in the warehouse and logistics sector and can list organizations such as Coca Cola Schweppes, Corus, P&O Distribution and Wincanton amongst its client base. During that period Proteus Software had also enhanced its PROTEUS software suite to provide a fully directed paperless warehouse management environment. Proteus and **Belgravium** had worked together on several warehouse installations including, most recently, a narrow band project for the wallpaper manufacturer Graham and Brown. The combined demonstrable capabilities of the two company's and Searchlight's prior knowledge of Proteus' working practices meant that there was only a cursory evaluation of alternative systems. Searchlight's major expectations with regard to the likely improvements the new RF system would bring centered upon traceability, picking speed and overall transparency. In addition to the key accounts previously mentioned, Searchlight also service many smaller organizations, according to IT Manager Chris Peart "We have circa 1000 live accounts from the majors right down to the 'corner shop' independent retailers. This also means that, in warehouse terms, there's no such thing as a typical order. We have around 3500 product lines and orders can be for 100 lines for one product, 100 lines for mixed product or just small orders of 2-3 lines of mixed product. Sales patterns are particularly difficult to predict and so the system that was to govern our new warehouse facility had to have a high degree of inherent flexibility. The Proteus-**Belgravium** system was tailored to cope with multi-component order picking. We have many customers who may want to order merely the base or shade components of our light fittings and others who want complete product. We needed logical software algorithms that would optimize stock allocation and picking routines, based on this requirement."

With the systems requirement fully specified, Searchlight decided that implementation would be undertaken in two incremental stages. A new server and spread spectrum wireless infrastructure was installed in the new facility in April 2002 and the company started putting stock into the bulk storage areas using **Belgravium's RF terminals**. Staff was rotated regularly in order that everyone gained some familiarity with the new hardware. After two months of this intensive training regime, Searchlight opted for a 'big bang' weekend in June 2002 which saw all administrative and warehouse personnel move across to the new facility. Chris Peart comments on the move "Inevitably, given the magnitude of what we were trying to implement, we experienced some hiccups but these were very minor. Overall, we went live with minimum disruption to the warehouse operation due principally to the commitment and co-operation of both our own staff and our suppliers. Many of the problems we experienced with the new system were, perversely, merely symptomatic of the increased statistical accuracy within the system. In other words, the problems had always existed when we were running the old facility but over time we'd simply developed manual work-arounds. The new system brought massive operational benefits but also demanded that we be very disciplined in adherence to strict procedures. In a very positive way, the adoption of the new system forced the overall pace of change within Searchlight."

Ronnie Hitchen, Picking Area Manager, goes on to describe the system in more detail : "We typically receive around 350 pallets per day. When the goods come in to the receiving area the inventory department performs a system check against a goods receipt schedule report, physically confirming receipt by scanning the goods on to a pallet with **Belgravium 'Geneva' Hand Held terminals**. A system routine then automatically compares what has been received against what was anticipated. If there are any discrepancies the inventory team can immediately liaise with the shipping department to initiate corrective action. If there are no discrepancies the pallet is given a system-generated pallet identification label. A proportion of goods will be forwarded to the Quality Control section for thorough inspection, with the system allocating the remaining pallets to one of several 'pick & drop' stations which are located at the head of the aisles. Typically it takes only twenty minutes from vehicle arriving to goods being released on to the system, a process that could take hours of even days under the old system.

From the pick & drop stations the operatives of the Narrow Aisle Vehicles are given put-away instructions, via the **Belgravium 'Monaco' truck terminals**, and directed to place the goods into the appropriate empty bulk storage bin locations. The racking is seven tiers high, with the top five being utilized for bulk storage and the bottom two for picking.

About 100 batch replenishment runs are undertaken in the evening, against the orders generated during the day. My first task each morning is then to confirm that the batch replenishments have been performed correctly and that the sales orders can be released for picking. Picking takes place with the aid of low level order picking trucks. I then have to ensure that the flow of orders and the prioritization they have been awarded by the system is maintained correctly throughout the picking period. This is a far easier task within the new warehouse because although we are now effectively systems-driven but I still have the option of manually over-riding priorities if I'm confronted with unforeseen circumstances. I have real-time information to hand on every facet of the operation – allocated tasks, picking rates, order value, stock location data etc. and I'm proud to be able to point to facts such as picking productivity rising by over 20% within a few months of going live. The benefits for the customer base are immediately apparent, with turn-around of orders now typically 2 days – a rate we couldn't sustain with the paper-driven system.."

Once the goods are within the dispatch area, the RF system no longer governs the operation. Chris Peart explains : "Although the PROTEUS software can actually handle real-time operation within dispatch, we have determined that this is an unnecessary extension of functionality for us. The supply chain loop is effectively closed via the generation of dispatch notes that ultimately the customer will sign as proof of delivery. However, because our internal audit trail is so tight it is rare that there are ever any delivery-oriented disputes."

Daniel Hamburger, Grandson of Sir Sidney and a key component in the company's future plans, provides a final comment on the success of the £6m capital outlay on the new facility : "In our last site we were so over-stretched that we were actually renting 100,000 sq ft of additional space in a separate location. Commercially speaking this was obviously not a viable long-term consideration. What we have actually implemented is incredibly progressive for our industry as the majority of our competitors are still operating in very antiquated premises and with outdated systems. The level of overall operational transparency that we now have with the **Belgravium-Proteus RF system** is staggering. Our managerial controls and the required skill sets within the previous operation were reasonably tight but entirely inappropriate for a real-time environment. A simple example is that, under the old system, a consignment would arrive in the goods-in bay but no-one other than goods receiving staff would be aware of this. The old system would necessitate Quality Control staff being requested to inspect the load before it could be sanctioned for release. The appropriate paperwork would then have to wind it's way to the computer room for keying-in before the load was fully authorized. Now every stage of the process is completely transparent. We can monitor the put-away of every individual pallet, if required. That level of information has proved critical in improving the communication and overall service levels that we can provide to customers. With key accounts the real-time element of the system has enabled an even closer integration of our respective statistical processes and systems. We have EDI and intranet facilities in place to ensure a seamless two-way flow of sales, order fulfillment, dispatch and invoicing data.

The new facility has been designed to allow for a continued expansion of our customer base. However, this was not just a case of adding floor space and racking capacity. It's easy to do this but it's equally vital to have the appropriate dynamic governing systems in place. In turn, the dynamism and instantaneous nature of the information we now acquire from the system has led to our management culture becoming far less reactive and far more proactive. This can only bode well for our continued growth."