

# The Railway Engineering Company



The Railway Engineering Company (TRE) was established in June 2000 to design and develop advanced rail control systems such as the revolutionary TRESIM – the first PC-based simulator of its kind in the UK that enables signallers to develop their skills in the safety of an off-line environment. Formed by three railway control experts who wanted to create and run their own business, TRE sought and achieved ISO 9001:2000 with TickIT under the Lloyd's Register Quality Assurance (LRQA) small firms scheme.

ISO 9001:2000 was necessary to convince customers such as Railtrack (now known as Network Rail) that the fledgling company was professionally run, and its disciplines were employed to help create a unique computer-based business management system (BMS). TRE now enjoys an annual fee income of more than £1 million, and is making a significant contribution to the safety of the UK's rail network. Its founders believe that ISO 9001:2000 has made a major contribution to their success.

## Benefits of Certification

TRE knew they would need a business management system to enable them to operate professionally and efficiently, and deliver a high quality product. They chose ISO 9001:2000 to provide the company with a high level of credibility.

- ISO 9001:2000 helped convince customers that TRE was a professional, well-run company, and helped to secure vital contracts in the early days.
- Certification conferred a market presence, providing confirmation that a small company could deliver the products and service levels that it proposed.
- It formed the basis of the business management system (BMS) around which all the company's operations are based.
- The TickIT element enables TRE to manage its software design, development and support, ensuring that all software releases can be tracked to customers in the event of a problem.



**“Market analysis showed that our customers would require ISO 9001:2000 – and our industry was insisting on it. The bonus would be that the system would also be our business management system.”**

Peter Cross, managing director, TRE

## Quality First

Despite their combined 85 years' experience in the railway industry, none of the three founders of TRE had run a small company, let alone a start-up that aimed to specialise in innovative systems for large, long-established national organisations.

**“We realised that if the business was not efficient, then we could have created a weak and inefficient operation with poor returns on investment,”** said managing director, Peter Cross. **“We**

**knew from day one that we needed a system, but the question was: 'what system should we have?'"**

The answer came just two weeks later, when quality consultant Barrie Shephard recommended ISO 9001:2000.

**"We had to work hard to build a market presence, especially with large companies, many of whom might not believe that a small company like ours could deliver the products and level of service we were proposing,"** said Peter Cross.

**"We decided that an ISO 9001 quality management system (QMS) would achieve all these objectives. In fact, market analysis showed that our customers would require ISO 9001 – and the rail industry was insisting on it. The bonus would be that the system would also be our business management system."**

This computerised BMS would include every administrative category and business discipline, from personnel to finance, and from contacts to safety. At the click of a mouse button, employees could drill down through menus to search customer profiles, the product sold to them, technical specifications of that product and all documentation relating to its development.

It would become a 'live map' of TRE and all its operations; being constantly updated, with all amendments being notified to the board – an element that would help to impose a good discipline and ensure that the BMS was a dynamic tool of the business.

Software control was important. "Control of software is a pre-requisite for our type of business, and our system enables us to be sure we know exactly who is using that particular piece of software and hardware," said director, Harry Ryland. "In the event that improvements and enhancements become available, we have complete traceability of all our products and systems."

## **Working for change**

Working to a draft copy of the new standard ISO 9001:2000, Barrie Shephard began to create a paper-free, web-based system that would be comprehensive but easy to understand and use; one which TRE could 'live with', and which would remain flexible and relevant as the company grew.

The BMS was introduced at the same time as TRESIM was being created and the development of such a complex and advanced product at the same time as introducing a BMS was a big task for a business with just a handful of employees.

"The first six months were very intense, with our time spent between product development and writing templates for documents in the BMS," said director Harry Ryland.

## **Certification with LRQA**

**"LRQA were the only assessing body who said their primary task is to help their customer – not just produce a certificate."**

TRE sought certification to ISO 9001:2000 under LRQA's small firms scheme, on the advice of Barrie Shephard. "The whole purpose of this system is to help TRE run their business, and I had no hesitation in recommending LRQA because they were significantly different.

**Harry Ryland agrees: "It is extremely important to work with someone who really knows what they are doing, and that you establish a relationship with them. With LRQA we do not feel threatened because they work things through with you; they suggest things we might like to consider. It is an objective assessment process aimed at helping us to improve our business still further."**

TRE's first assessment was conducted by LRQA on December 15, 2000 – the very date that the new standard ISO 9001:2000 was issued. "LRQA had never seen anything like our system before, but they quickly adapted. We did not have any non-compliances, but LRQA proposed minor improvements in several areas, and so the process has developed."

The first test for TRE's ISO 9001:2000 came with the first visit by their major customer, Network Rail. "When they came to see us, we presented our BMS and our products and they looked sceptical," said Peter Cross. "However, as soon as they saw the potential of the resultant products and systems such as TRESIM, they have embraced them with enthusiasm."

## The Future

**"Our objective was to get a system that would raise our profitability and we have achieved that."**

The success of TRE's simulator work has led customers to seek new ways of exploiting their technical and management skills and the company is poised to capitalise on this development in addition to continuing its important work on railway safety. Its robust BMS provides the security and flexibility to enable the company to manage this growth. And the founders are sure that their success is largely due to the benefits achieved through their ISO 9001:2000 QMS certificated by LRQA.

**"It would have been quite possible to get certification with a system that hindered profitability rather than helped it. Our objective was to get a system that would raise our profitability and we have achieved that."**

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