

New view on rail maintenance

Web-based workflow and scheduling are improving maintenance management across much of the UK's rail network. Brian Tingham finds out what's happening from Balfour Beatty Rail Infrastructure Services

Maintaining the UK's rail network involves thousands of engineers looking after hundreds of miles of lines, switches and crossings. It's a serious management and communications challenge, but Balfour Beatty Rail Infrastructure Services (BBRIS), which provides track renewals services to almost one third of Network Rail's infrastructure, has found a solution in a web-based system.

BBRIS used specialist consultancy TUSP (The Ultimate Solutions Partnership) and now has what amounts to an electronic project management framework, with project support tools capable of generating method statements, planning procedures and ordering information – all driven by the realities of rail operations and maintenance.

Serious complexity

Renewals operations are notoriously complex, partly due to the scale of variables. As well as scheduling its own staff, BBRIS also has to schedule suppliers and third parties, while working within the national rail timetable and dates mandated by Network Rail. As a result, scheduling lead times often run to a year. On top of that, there's the number of depots around the country, some of which have developed region-specific practices over time.

Making all that work differently and better was never going to be easy, but TUSP's approach was to go for a structured analysis. First, its people reviewed the existing planning and scheduling processes, how they interacted, and how and when information got to those who needed it, to see where improvements could be made. Says TUSP director Richard Smith: "It became obvious that their processes could be broken down into a number of discrete phases. By apportioning the processes in this way, we immediately simplified them, making it

far easier to incorporate improvements."

Next followed the detail – ascertaining what was involved in each phase. "By identifying the deliverables, we were able to create a stage gate that allowed BBRIS to define the end of one process and the beginning of another. Each stage gate required sign-off from senior management, but the beauty of the system is that it's not totally rigid."

The final part of the jigsaw was a visualisation tool, which was achieved by turning the existing paperwork into web pages for BBRIS' intranet.

And with the database, information access and project management now centralised, planning work could move out to the depots. As well as making operational sense, having planners at the 'coal face' would help make efficiency improvements happen. BBRIS is now looking at hand-held technology for engineers on the lines to take that further.

BBRIS managing director Geoff Durand says that so far the new engineering management system is performing well, despite initial reluctance in some quarters to adopt it. Looking at the old way versus the new, he explains: "The previous systems were bespoke and needed much more support than this new approach. It was not all bad... The new system leverages many of the capabilities of the old systems, which were not really fulfilling their potential. But, with the new intranet-based approach, all of the capabilities are now available to all that need them."

And he adds: "Although it's early days, we are expecting the new system to be a lot more reliable. Indeed early signs are already reinforcing this belief. Network Rail has also been expressing an interest in what we have done and, with this new end-to-end process now in place, we can demonstrate what could potentially become a national rail programme." **PE**

Pointers

- To systemise the new BBRIS maintenance programme, TUSP implemented Primavera P3E project management software and its Progress Reporter interface, mapping the timings for each activity in each of the processes.

- "What Progress Reporter does is monitor activity due-dates, allowing engineers to manage those activities and record when they have completed them, which updates P3E," says TUSP director, Richard Smith.