

CASE STUDY

Davis Langdon manages NEC contract online

Leading project and cost consultancy Davis Langdon worked with BIW Technologies to develop an online solution to support its NEC contract administration role on a £9.75m development in Cambridge. Despite the design team and contractor having little or no experience of the NEC Engineering and Construction Contract, the web-based system ensured the team's compliance with their contractual obligations, halved the time taken to issue contract communications, encouraged more complete and consistent information, and reduced administration time.

Key benefits

- Less production, reformatting, copying and distribution of paper (or email and related attachments) – Davis Langdon estimated a 50% time saving in issuing contract communications
- Higher quality, more complete contract-related communications
- Easier, more consistent referencing to the contract
- Better project discipline
- Greater control over information flows
- More efficient archive – past information can be quickly located even if staff involved have left the project
- Reduced risk – central repository reduces capacity for errors and omissions from distribution lists and non-receipt of information due to human error, with a full audit trail of all contract-related communications
- Easy access – data available to all authorised team members regardless of location, via a PC with a standard web browser and an internet connection

Background

Since the mid-1990s, use of the New Engineering Contract (NEC) suite of contracts has increased significantly on UK construction projects, particularly where clients and project teams want to adopt a more collaborative approach to avoid claims and disputes. The NEC promotes a high level of management discipline between the employer, project manager, supervisor, contractor and designers. For example, where a variation (defined in the NEC as a Compensation Event) occurs, contractors must notify the project manager within a specified time period, if the project manager has not already done so. Various processes are also subject to specific time limits. When such processes rely upon conventional paper- or email-based communications, large volumes of paperwork can be generated, absorbing considerable amounts of management time.

The project management team in the Milton Keynes office of Davis Langdon, led by Tim Knee-Robinson, has a strong body of knowledge and expertise in managing and administering the NEC Engineering and Construction Contract, especially on building projects. However, initiating, managing, tracking and reporting on the processes can be very time-consuming. Project manager Chris Akers outlined the challenges of administering the contract using a paper-based system: "Typically, we have to

draft proforma notices, convert them into PDF format, then issue the notices to recipients, and then carefully supervise and manage the subsequent decision-making procedures within the time constraints established by the contract."

In 2004, Davis Langdon was appointed to provide project and cost management, including contract administration services, on a major city centre development for St John's College, Cambridge. The £9.75m 'Triangle Site' project is split into two phases. The first involved conversion of two properties into a medical centre at a cost of £1.75m. The second required careful refurbishment of around 12 listed buildings in a conservation area in the historic heart of Cambridge to provide ground-floor commercial space with residential accommodation for students in the floors above.

The client was happy to use the NEC 2nd edition (NEC2) despite a lack of familiarity with the contract among the project team. Tim was also keen to find an alternative to the paper-based system and email as a communication medium, but, wary of adopting a 'one-size-fits-all' approach due to previous experience of similar systems; the chosen solution had to be flexible enough to meet the specific project requirements. Davis Langdon therefore collaborated with BIW Technologies to develop a comprehensive suite of standard forms and

documented procedures which met all of the NEC process requirements. Thus, approximately six months after Phase 1 commenced, BIW's Contract Administration module was adopted and trialled alongside the current processes.

The approach

As a leading UK project and cost consultancy, Davis Langdon had experience of using BIW's online construction collaboration platform. After reviewing BIW's Contract Administration module, Tim decided that it could be enhanced and developed in line with their current processes for deployment on the Triangle development. Working closely with BIW consultants, Chris therefore set about replicating the Davis Langdon suite of forms and workflows as online processes on the BIW platform. These mirrored the project execution plan which detailed all current contract procedures. This plan and the supporting technology helped overcome some initial scepticism within the team; users could quickly see how the BIW system helped ensure compliance with their contractual obligations. For example, Early Warning notices cannot be issued unless the issuer had correctly referenced the relevant contract clauses and supplied all the data requested on the form; similarly, when contractors issue quotations for Compensation Events they are prompted to provide both costs and programme impacts before it can be submitted.

For those issuing notices, the benefits quickly became apparent. "I would estimate that drafting and disseminating a communication is at least 50% quicker," says Chris. "Moreover, once you have issued a notice, you can use the BIW system to see if it's been read, by whom and when. Responses are also more complete, saving a lot of time chasing and policing."

In the first four months, over 100 Compensation Events were issued. Since each of these then generated further processes (eg: Contractor's Quotations, Project Manager's Assessments etc), strong management procedures were needed to maintain control of the project. In addition to the NEC processes, the contractor's request for information (RFI) process was also very simply added to the BIW Contract Administration module. Having a single repository for all of the projects communications proved invaluable, said Chris: "The BIW system allows you to quickly search any type of communication and identify, say, all of the Compensation Events for which a quotation had not yet been received, or identify all of the Early Warnings which are open at that time. The system also allows you to explore the history of an issue quickly and easily due to the in-built audit trail and links to associated documents. A further benefit is being able to bring information to team meetings, by filtering and exporting the information into spreadsheets and reports."

Management issues

An initial period prior to the adoption of the BIW Contract Administration module meant that the users became increasingly familiar with the processes required by the contract. The impact of completely transferring over from the initial paper-based system was therefore minor. "BIW does nothing new so far as the contract is concerned," said Tim, "it simply ensures that the project team conform to the prescribed processes."

Before the transfer, a half-day training workshop was held to introduce and explain the workings of the BIW system to the project team. "With the benefit of hindsight, it would have been useful to extend this training or to repeat it for new users joining the team later in the project," said Chris. "But now that most users are familiar with the system, I would like to think that they would object if you said you were going to take it away!"

Davis Langdon also wanted to ensure that the system could be adapted to suit other projects, for other clients and their project teams. "A big bonus for us is that the BIW system is inherently flexible," Tim said. "We can amend processes, fine-tuning how the system delivers particular information to particular individuals – ensuring communications have a familiar branding or format helps in getting users to accept the system."

BIW: Contract Administration can also support different NEC contracts, including the Engineering and Construction Short Contract, the Term Service Contract, the Framework Contract and amended versions of the contract specific to particular organisations or programmes. BIW has already worked with Davis Langdon to develop a NEC3 contract administration module for implementation on forthcoming projects.

Key lessons

- **Focus on the people issues** – it's 80% people and processes, only 20% technology; when introducing the technology, explain how it is an enabler for supporting the contract requirements (eg: Davis Langdon's existing project execution plan and contract administration procedures) and ensuring people adhere to the correct processes.
- **Train the trainers** – effective deployment, training and support are vital, and it helps to build up local experts in using the system. Provide regular training sessions for new team members.
- **Highlight the system's transparency** – Davis Langdon encouraged a high degree of compliance by demonstrating how easy it was to monitor processes; awareness of the system's audit trail capabilities encourages team members to adhere to prescribed processes.

BIW Technologies Limited

21-25 Church Street West, Woking, Surrey GU21 6DJ

T 0845 1300 800 Int +44 (0)1483 712620

F 0845 1300 900 Int +44 (0)1483 756325

E info@biwtech.com

www.biwtech.com