



How Devon County Council uses Eurocodes PLUS to save time and build for the future.

“In terms of time saving in linking documents to other documents and finding your way around it is superb.”

Andy Matthews, Senior Professional Bridge Engineer, The Engineering Design Group, Devon County Council

Customer needs

- Transition from British Standards to Eurocodes
- Easy access to standards in a cost-effective way
- Speed up training time on the Eurocodes

Customer solution:

Eurocodes PLUS is the online tool that makes working with Eurocodes simple.

Benefits

- Easy to use, cost-effective and, above all, quick.
- National Annexes and NCCI embedded at clause level.
- Allows knowledge sharing with custom documents.
- Visibility of all the withdrawn British Standards; this allows effortless comparison between the old and the new. It is also an excellent tool for retrospective design maintenance for structures designed to the withdrawn standards.

Background

The Engineering Design Group providing consultancy to Devon County Council operates as an in-house design service. There are around 90 engineers and technicians in the group. The group covers the whole lifecycle encompassing design, management, inspection, maintenance and eventually renewal and enhancements. This includes bridges, structures; roads and waste management (landfill and recycle centres).

Andy Matthews, Senior Professional Bridge Engineer, has worked for the group since 1997, before which he was at WSP Group.

The Eurocodes

When standards are changed, it can be a challenge to embed new practices across the department. This was particularly evident in the introduction of Eurocodes for structural engineering.

The group were early adopters of the Eurocodes. At the beginning of 2009 they were engaged in the design of a steel footbridge. The Eurocodes had been issued, but were not mandatory at this time for publicly procured projects. After discussions with management it was decided that, in view of the future withdrawal of the British Standards, the new bridge would be designed to Eurocodes. They are now widely used across the group.

The Eurocodes were developed to be up-to-date with modern research and best practice, and to harmonize design work across Europe. The behaviour of the various materials has not changed: steel is still steel, and concrete is concrete. But the way the strengths are assessed is different in the Eurocodes.

The Eurocodes are divided into ten parts. This is a change from the British Standards – for instance, within the withdrawn British

Standards all relevant loading parameters were within one standard, whereas now they are split across several standards. In addition to the ten core parts, there is a National Annex for each country and Non-Contradictory Complementary Information (NCCI) which need to be cross referenced.

When asked to identify the most significant obstacle in using the Eurocodes, Andy replied "It's very hard to follow them in a paper or PDF copy", going on to explain: "You're reading a clause and it says you need to look at this parameter and then you flick back to another document or you've got to access the National Annex to see what parameter they want – so you end up with your desk absolutely covered in documents." At this time the documents were acquired in PDF format and printed out to hardcopy.

The transition from British Standards to Eurocodes presents a formidable challenge: relevant clauses are found in several distinct places; the contrast with the withdrawn British Standards – something that the industry was used to using – is stark; and getting to grips with the sheer number of documents involved can be a daunting task.

Eurocodes PLUS

The motivation for the group to use Eurocodes PLUS came after the product demonstration. They were very impressed with the product, particularly with the ability to make comments within the documents and the fact that the National Annex and NCCI are embedded into the code of practice at clause level. The need to have multiple documents open on your computer or your desk has all but disappeared. You can clearly see what parameters you need to use. Andy commented "In terms of time saving in linking documents to other documents and finding your way around it is superb."

Recently they have taken on a number of graduates, "they are often not taught in-depth Eurocodes, so the ability to create notes and give guidance information within the documents is invaluable for mentoring and bringing on the junior members of staff." Even though the product has been developed for day-to-day design and maintenance, it can be used to speed up training time on the Eurocodes – the document search function at clause level and ability to make comments helps enormously.

Another feature that Andy was impressed with was the ability to create dynamic documents; this allows the user to create a set of notes on a particular topic or area – a virtual cut and paste. This could be created by one of the senior engineers, so in the future the document can be used by other engineers for similar purposes. It will have all the relevant information that is needed for that particular topic or area.

There is sometimes the need to check old structures and it is useful to look at the withdrawn codes of practice when doing so. In addition to containing the new Eurocodes, Eurocodes PLUS provides a full set of the relevant withdrawn British Standards.

The group have found integrating Eurocodes PLUS into their workflows easy. Eurocodes PLUS has been developed to be intuitive in its use and this is supported by a training team providing both face-to-face and online guidance.

Eurocodes PLUS has given the group quick and easy access to standards in a cost-effective way; its flexible modules give access to all or part of the Eurocodes. The Eurocodes are always available when, how and where they are required; and BSI is trusted as one of the best sources of standards information.

Find out more visit:
bsigroup.com/EurocodesPLUS



Contact us to find out how BSI can help your business make excellence a habit

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