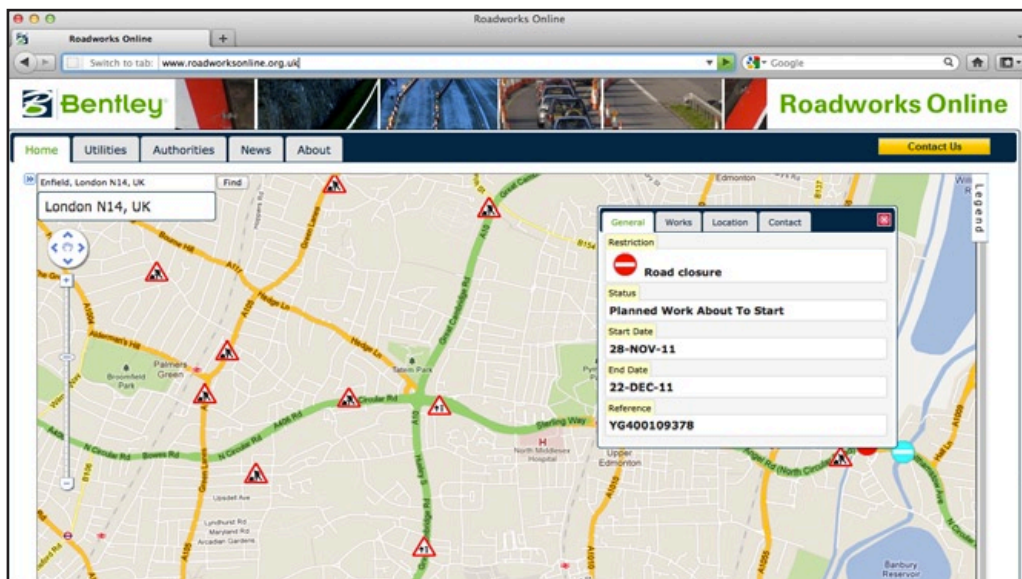


Bentley: putting UK infrastructure on the map

This Autumn Bentley Systems opened the doors to its plush new UK headquarters in the city of London. **Greg Corke** caught up with CEO Greg Bentley to talk about new initiatives which are helping bring order to the UK's infrastructure.



Roadworks Online helps inform the public of work currently being undertaken, why it is being done, and by which organisations. It also indicates the extent of disruption to traffic flows, helping the public anticipate delays in travel times.

While many firms are looking to downsize in the current economy, Bentley Systems is taking a different approach.

Its new premises, located in the former Barclays Bank building in the City of London, is nothing short of impressive. Designed by the interdisciplinary design practice, BDP, it is expected to achieve a 'very good' BREEAM rating and 'silver' LEED certification, standards used to assess Green Building design.

The new office overlooks a number of landmark structures, including 30 St Mary Axe (the Gherkin), London City Hall, the London Eye and, further afield, the O2 Arena, which were designed with the help of Bentley's information modelling and collaboration software. But while the central London location makes a clear statement on the role Bentley has played in shaping the City's skyline it also gives it a new focal point for the UK, Bentley's second largest country in the world in terms of business.

"We have 195 people in the UK and they have been everywhere (and nowhere) and most have been part of teams that are at least dedicated to Europe, Middle East and Africa, if not global. So over the years of acquisitions and globalisation I think we had lost a sense of the UK culture and I wanted to bring it back," said Greg Bentley commenting on the re-location from

Bracknell and other satellite offices.

Mr Bentley's decision to open a new London headquarters also underlines his belief in the huge potential for new infrastructure projects in the UK.

"Our expanded investment in London is consistent with the UK's aggressive commitment to continued sustainable infrastructure development to underpin its long-term economic growth," he said.

"The national infrastructure programme in the UK says 75 percent of the investment should be private investment, and that really is the solution structurally for infrastructure deficits in the world at large."

The UK is also leading the way in terms of innovation. "Those of us, here in the UK, working on infrastructure are well aware of where it could be further improved, but fail to appreciate how distinguished it is, how much brain power and horsepower are brought to bear for infrastructure in the UK to good effect that the rest of the world can learn from."

Bentley software is currently being used heavily in a number of landmark projects in London — Crossrail, the new east-west rail link and the largest construction project in Europe, the Thames Tideway Tunnel, a massive engineering project that aims to improve the water quality of the River Thames and, of course, the 2012 London Olympics.



CEO Greg Bentley.

With all infrastructure projects of this scale, collaboration is key and here Bentley's trump card for the UK is ProjectWise Business Process Template for BS 1192. The software helps manage work processes involving content hosted by ProjectWise in compliance with British Standard BS 1192 practices.

For handover, post-construction, Bentley is also investing heavily in AssetWise, its asset lifecycle information management (ALIM) and infrastructure management software.

Like many AEC software developers, it sees big potential for more effective management of asset operations, and has been working with partners to deliver real value to owner/operators.

Roadworks online

Since 2008, UK local authorities and utility companies have been required to issue an electronic notice for every excavation or opening to be undertaken in a publicly maintained highway. Bringing all of this data together with an interactive visual front end, Bentley has now developed Roadworks Online (www.roadworksonline.co.uk).

"It is a portal where you can see all of the Roadworks projects in the UK," said Mr Bentley.

"It is free for everyone in the UK, where they can look at where the roadworks are and drill down and see for particular ones what the impact is on their commute and so forth. There is nowhere else in the world that such a thing exists."

The primary role of Roadworks Online is to inform the public of work currently being undertaken, why it is being done, and by which organisations. It also indicates the extent of disruption to traffic flows, helping the public anticipate delays in travel times.

But beyond altruistic benefits for the British public what is the rationale for Bentley developing such a service?

"Well it happens that our Exor spatial data asset management service manages about 60 percent of the highway miles in the UK at large now, and we have others who are working on expanding that percentage," said Mr Bentley.

"Therefore, we serve most of the municipalities who are receiving the [work] notices. We have worked out how to get all the other notices, because they are meant to be in the public domain and so forth, and it was a service we could offer.

"We will eventually offer a slight premium service to municipalities who want to look at the archives and

“Our expanded investment in London is consistent with the UK’s aggressive commitment to continued sustainable infrastructure development to underpin its long-term economic growth”

scenarios and so forth, rather than just where is the [traffic delay or roadworks] — what is the picture at the moment?”

The new service, delivered through AssetWise should also enable roadworks to be better co-ordinated with adjacent authorities, helping support a more structured approach to maintenance.

With the 2012 Olympics around the corner it might not be Londoners that will immediately benefit from this new technology. London has been subject to a huge, and disruptive, infrastructure upgrade programme in the lead up to the games.

“I have heard anecdotally that the scheduled roadworks for London in 2012 are zero,” quips Greg Bentley.

Intelligent Trench

Roadworks Online is focusing its efforts on co-ordinating operations from a network perspective. Bentley is also involved in a new initiative that will help manage services under the ground.

The Intelligent Trench underground mapping solution (intelligenttrench.com) allows every road excavation in Britain to be recorded and mapped accurately on a national database. Then, when a contractor or utility company is scheduling works, they will be able to plan a more accurately targeted and smaller excavation — also leading to fewer exploratory digs, reduced damage to underground assets and improved safety.

Intelligent Trench uses radio frequency

identification (RFID) asset marking technology to pinpoint underground services.

“This goes in when a trench is open, when the street works are being done,” said Mr Bentley, “and of course it can be registered with a survey device from street level.”

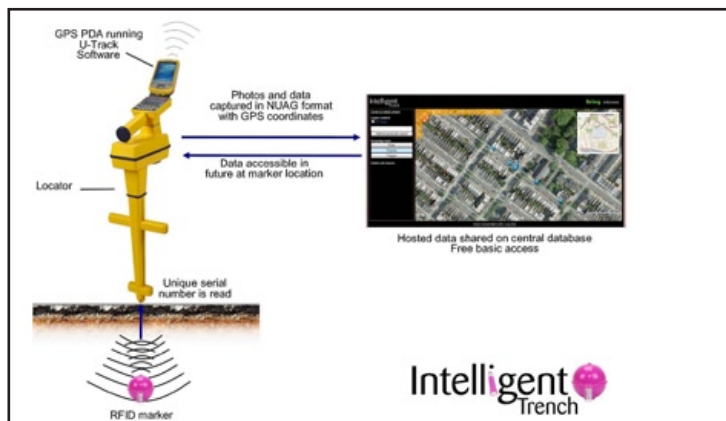
When manufacturer 3M teamed up with Bentley, Trac-ID, infotec and PelicanCorp (provider of the beforeUdig service), it was able to kickstart a national project.

“3M has pulled its hair out, having a good idea that just has not been adopted anywhere [apart from the UK],” said Mr Bentley. “I guess, you have to have a little more association between whose effort it is, digging the trench, and whose benefit it is, knowing later where exactly everything is.”

As with Roadworks Online, Bentley’s involvement in Intelligent Trench comes through Exor, providing the backbone technology for the spatial web-based service from which basic Intelligent Trench record information can be uploaded and accessed for free. This will reduce the need for inefficient phone or email enquiries into the location of assets.

According to Intelligent Trench, four million road excavations take place in Britain each year, 20 percent of excavations are dug in the wrong place, excavations reduce the life of the highway by 30 percent, and there was £150m of estimated damage to third party assets in 2005.

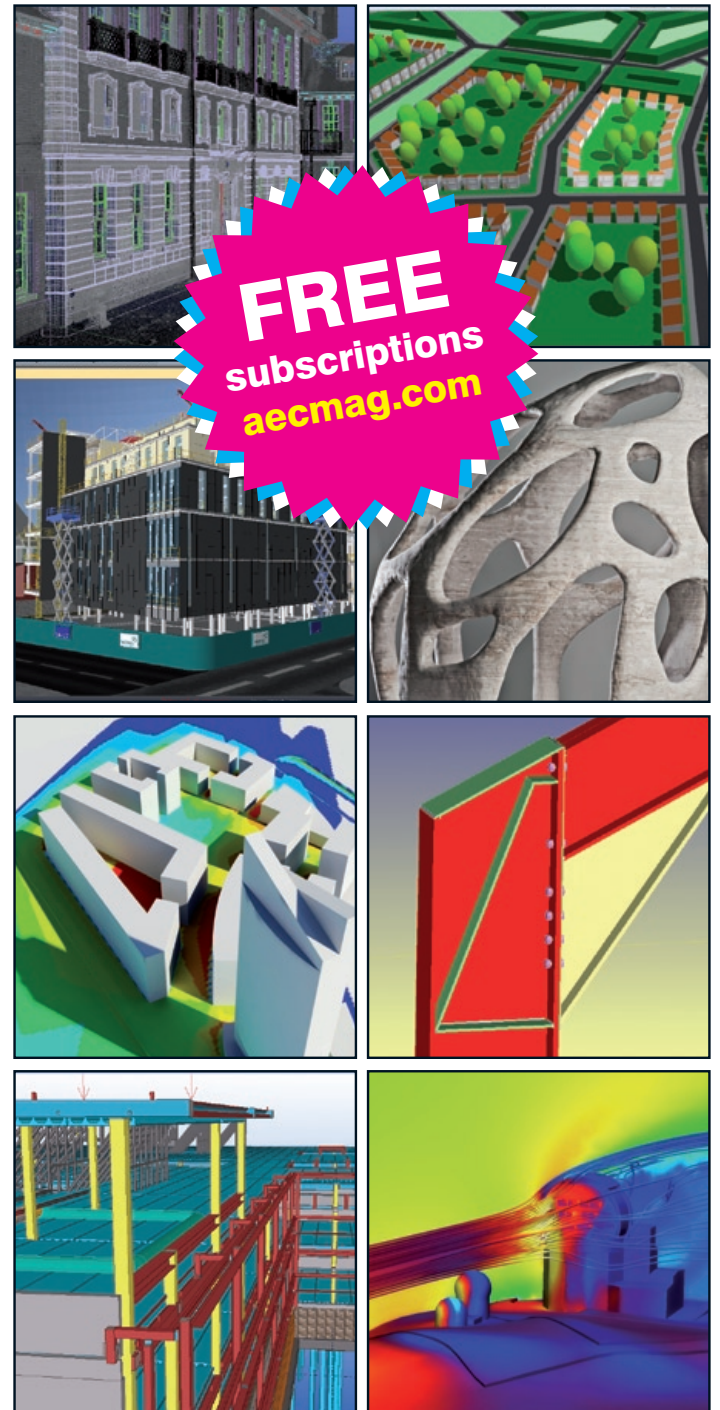
Through co-ordinated efforts and initiatives like Roadworks Online and Intelligent Trench, Bentley is doing its bit to help reduce these alarming statistics. www.bentley.com



The Intelligent Trench underground mapping solution allows every road excavation in Britain to be recorded and mapped accurately on a national database.

AECMAGAZINE

DESIGN, MANAGEMENT & COLLABORATION IN THE BUILT ENVIRONMENT



FREE
subscriptions
aecmag.com



Read AEC Magazine
on the iPhone / iPad.
Download from
iTunes now