

Realistic 3D City Models, enables rapid production of models that cover very large city areas, and include the same high detail in the suburbs as they do in the city centre. C3 Technologies AB is a venture-backed spinout from SAAB AB, a leading company in the Swedish Defence industry, and the image processing technology now being used for their cityscapes is based upon technology deployed in missiles and fighter aircrafts. This migration from defence to city mapping is symptomatic of the way that technology is entering the world of placemaking from all sorts of unlikely beginnings.

3D MAPPING APPLICATIONS

One of the companies currently using C3 Technologies software is Yell, the people behind Yellow Pages. They have introduced new 3D maps of Birmingham, Leeds, London and Manchester and their service allows the 3D view to be dragged, titled and merged with more standard street level panoramas. The photo-realistic 3D maps were created from actual film footage shot from light aeroplanes, which is then merged with other film taken from ground level. The service can be used for free on Yell's website. Matthew Bottomley, who heads up innovations at Yell.com says: 'We all know that ordinary maps tell only part of the story. You can be right around the corner from a building and not realise it's just over the nearest rooftop. Now you can actually look down and around from every angle from that very rooftop.'

At the end of 2009, The Ordnance Survey unveiled a 3D map of Bournemouth, which they claimed was the 'most detailed ever', as part of a pilot scheme for a new generation of maps.

The national agency used state-of-the-art laser technology and aerial imagery. In a three year project, more than 700 million laser beams were sent out from Ordnance Survey vans and aircraft patrolling the town. These bounced back off Bournemouth's hills, buildings and streets, providing precise geographical data about the terrain. Ordnance Survey claims that the results are substantially more accurate than the 3D maps available through online applications such as Google Earth and Microsoft Virtual Earth, and will revolutionise the way it charts the British Isles. 'Three-dimensional maps in themselves aren't new, but what we've achieved in Bournemouth is a level of accuracy and detail that's never been attained before,' said Glen Hart, Head of Research at Ordnance Survey. However, the



3D mapping service will not be rolled to the rest of Britain for at least five years, while Ordnance Survey perfects the new method, which will deliver new applications for both public and professional use.

Along with 3D imagery, the potential of 3D audio simulation is now being realised, and used to assess living or working environments. Interactive soundscapes have been created by companies such as Arup and Genesis Acoustics, and can be experienced through the use of real-time sound audio systems integrated with simulators and virtual reality platforms. The soundscapes create a sensation of immersion and can help in

the study of noise tolerance levels and in communicating a vision for a building or development.

Another evolving area of interest is the presentation of places over time, so as to highlight the change process. The Medieval Dublin 3D Model, commissioned by Dublin City Council, was made available as a DVD and explores a 3D model of the walled city, between 800 and 1540 AD, visiting a Viking house and a medieval street. The city of Pompeii has been brought back to life using the CityEngine software, developed by the Swiss firm Procedural. A 3D model of the ancient site, using building footprint data and architectural information from archaeologists,