

Thursday 17 March 2011.
Omni Engineering Limited

Delegates were provided an informative and interesting presentation by Mark Richardson, Business Development Manager, Omnicom Engineering Limited. A company founded in 1995, based in York, initially used their expertise in the rail industry providing detailed virtual surveys for track condition and other infrastructure.

In 2002 they moved to the highway industry where technological advances enable them to provide a comprehensive digital survey and data collection range of services. After giving a brief background of the company's history, Mark demonstrated how data was gathered and then applied to various situations.

Mark first emphasised that the surveys were not just visual and that the vehicle is also equipped with equipment which identifies any "pitch and yaw" in the vehicle travel and can therefore provide complete horizontal and vertical deflection reports.

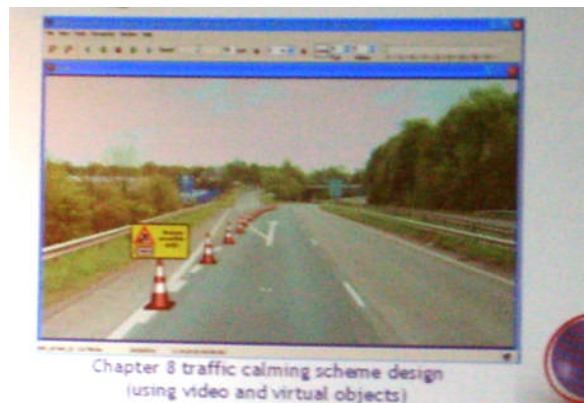
Being digital and of exact quality, detailed measurement are possible, even around corners and over considerable distances. The use of thermo-imaging cameras can also provide assessments as to the effectiveness of bordering building heat-insulation and other features, thus enabling local authorities to spread the costs across many different disciplines rather than just the highway network.



Having surveyed a route, the data can be applied to other programmes to develop traffic management schemes as, having accurate dimensions and virtual image road markings a scheme design can take place without even leaving the office. The immediate benefits being realised – that of safety for survey teams and the progress of the planning not being weather dependent. An example (forgive the picture quality) is shown to the left. Note, this is not computer projection but 'real time' imagery with the proposed traffic measures overlaid. It is possible to measure the dimensions of existing road markings simply by applying an in built ruler.

Another application that can be applied is temporary traffic management planning with the particular area subject to works being retrieved and particular 'Chapter 8' applications being applied to produce a working plan and, again, visual imagery – you can see the finished article to assess the approaching driver's view.

Road closure diversionary route planning is made easier, especially to avoid 'bridge bashing' by LGVs. A 'virtual' LGV is inserted into the programme and follows the (previously surveyed and stored) diversionary route. Any obstructions to its free passage, including decreasing over bridge clearances are immediately identified.



Delegates posed many and varied questions from which it was evident that this technology had much to offer highway engineers with the 'added value' across many aspects of local authority work.

The Branch is grateful to Mark for providing an excellent presentation. Further details can be obtained at www.omnieng.co.uk