

Streets Ahead

January 2007

SIEMENS

News Innovation Trends



MOVA microsimulation
Your chance to trial at no cost

Traffic solutions for 2008's City of Culture



A project to develop an Urban Traffic Management and Control (UTMC) system to help manage congestion, provide highway network control and to avoid the need for future infrastructure schemes in Liverpool has been commissioned by Siemens Traffic.

The project forms part of the Liverpool City Centre Movement Strategy (CCMS), a £73 million programme of works aimed at improving roads, streets and public spaces, working towards the city's vision to make Liverpool modern, cosmopolitan and the European Capital of Culture 2008.

The new system includes Siemens' Comet UTMC traffic management and information system which will enable the authority to combine the data generated by its remote monitoring and urban traffic control systems, and will provide traffic managers with a better overview of traffic situations and enable them to automate responses to manage and alleviate congestion.

Siemens' technology addresses a key part of the Local Transport Plan (LTP) written by partners Merseytravel, and the five Merseyside local authorities Knowsley, Liverpool, St Helens, Sefton and Wirral. The 2006 – 2011 LTP will provide £200 million of investment in new infrastructure and improved services, providing Merseyside with a safer, greener, more efficient and accessible transport network.

The project includes the supply and installation of 36 variable message signs which have already started to operate in 17 locations in the centre of Liverpool, with 19 more being installed further afield, including in Wirral and on the M62.

Siemens wins traffic signal maintenance contract on IOW

Demonstrating an unrivalled capacity to maintain over half of all traffic control equipment installed on the UK road network, Siemens has been awarded an additional traffic signals maintenance contract for the Isle of Wight – extending a relationship with the local authority which has already lasted for over seven years. The contract covers the maintenance of all traffic signals on the Island and the installation of associated equipment including a remote fault monitoring system to all controllers.

Awarding the contract, Iain Thornton, Traffic Engineer for the Isle of Wight Council said that Siemens was chosen as the continuing maintenance contractor on the basis of an effective combination of quality, cost and service factors. Commenting on the excellent working relationship with the local team, Iain added, "We have also been impressed with the company's enthusiasm and commitment to working in partnership with the Isle of Wight Council".

Siemens will service the contract for a period of three years, with an option to extend for a further two years by mutual agreement. The new agreement includes a package of measures to carry out installation to suit the Council's requirements, all of which will help towards improving efficiency and operation of signals on the Island.

Siemens Traffic wins key supplier award

Siemens Traffic has been honoured with the inaugural May Gurney Integrated Supplier of the Year award in recognition of the company's expertise and approach to the long-term strategic partnership with the support and construction services company.

In 2004, Siemens moved from a rolling three-year contract with Norfolk County Council, which the company had serviced for 30 years, to sign a 10-year contract with May Gurney. The judging panel recognised the positive benefits that Siemens has brought to the partnership and the real dividend of delivering value. Siemens agreed a schedule of rates at award of contract which has enabled Norfolk County Council to budget schemes more easily, allowing them to make full use of the skills of the Siemens team.



David Sterry, Chief Executive of May Gurney, left, presents the inaugural Integrated Supplier of the Year award to John Betts, Southern Region Manager of Siemens Traffic.

On the move in the north west

Siemens has moved to a new facility in Lowton. The new office will enable us to get all our operations under one roof and provide a structure to operate to our full potential in the area with a strong emphasis on system support. John Francis, commenting on the move said, "The new improved facilities will enhance our service provision, giving our customers ease of access, which in turn will encourage partnership working."

The address details are:

Unit E13, Croft Court
Moss Industrial Estate
Lowton
Leigh WN7 3PT

Tel: 01942 605186

No obligation trial offer

Helping traffic get a MOVA on

Siemens Traffic is offering traffic control managers the opportunity to trial the latest version of MOVA, the microprocessor-based traffic control system for isolated junctions, before they commit to the full costs of installation.

The design offer includes MOVA loop design, data-set, and Paramics junction model, to demonstrate how successfully the system would perform at a specific location.

If the model fails to show that MOVA is beneficial when compared with normal VA operation, Siemens will not charge for the work. If, on the other hand, the simulation demonstrates there is a benefit, authorities will pay for the work and can continue with the scheme in the knowledge and confidence that it will deliver the anticipated benefits.

The approach combines PCMOVA from TRL and the industry leading microsimulation model Paramics, together with the modelling and traffic engineering skills of Siemens.

Developed by TRL, and currently only available from Siemens, the latest version of the MOVA software, MOVA 5, provides improved performance at congested, heavily loaded junctions where its congestion-minimising and capacity-maximising features give greatest benefits in terms of safety and efficiency.

To request further information on MOVA or to arrange a trial in your authority, contact Rob Conlon on 01905 793508.

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SCOOT on a PC

offers more flexible traffic management



Now Siemens' updated UTC system combines the world leading SCOOT adaptive traffic control system with the enhanced functionality of Siemens' advanced user interface, all operating on a PC.

The combination of Siemens' proven UTC SCOOT software with the Microsoft Windows operating system offers a solution, which is flexible to meet the needs of any service provider, from small towns to the largest urban metropolis.

The introduction of PC SCOOT allows more cost-effective systems integration and commonality of hardware across the range of traffic management and control systems. This in turn reduces maintenance requirements and provides more opportunities for implementing a range of traffic solutions. PC SCOOT incorporates SCOOT MC3, the latest version of the proven adaptive control algorithm which includes a customised congestion management tool kit allowing traffic managers around the world to implement procedures that are relevant to their individual situations.

Commenting on the introduction of the new solution, Siemens' Systems Marketing Manager, Mark Bodger said, "PC SCOOT has

been introduced in response to changes in technology and demand from customers for increased levels of integration in their traffic management systems. This latest development means that the world's leading adaptive traffic control system is now available on a standard hardware platform, offering efficiencies in system integration and ongoing maintenance."

PC SCOOT offers:

- World leading adaptive control
- Increased standardisation with traffic control centres
- Windows operating system
- Customised congestion management
- Reduced equipment and maintenance costs
- Maximises network efficiency
- Improved access to management data
- Over 20 per cent reduction in delays
- Ease of use for new users
- Simple installation and migration

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A safer future for pedestrians

With over 70 years' experience within the traffic signals industry, Siemens is constantly innovating and expanding its wide portfolio of traffic solutions. It continues to offer solutions for emerging requirements such as journey time monitoring and road pricing schemes, however, with an ever-increasing emphasis on improved driver and pedestrian safety, Siemens remains firmly focused upon developing its existing range of on-street equipment.

Building on our comprehensive portfolio of LED signals, the range has been extended to include a 'Narrow Field of View' Near-side signal. This unit is designed to be used where it is desirable to minimise the problem of 'see-through' and increase the clarity of the signals to the pedestrians to which the signals apply.

These new Near-side display units are available to order now from Siemens.

Trends

Comet upgrade adds GIS digital mapping

Comet, which was developed by Siemens to support all Urban Traffic Management and Control (UTMC) systems, is now available with a sophisticated digital mapping function, providing new features and more dynamic, user-friendly displays.

Demonstrating our ongoing commitment to open standard communication and UTMC, the introduction of GIS digital mapping will add more functionality and further enhance the proven facilities offered by Comet.

The use of a UTMC common database such as Comet allows the integration of data from a range of disparate sources into a single consistent overview of the network. GIS displays allow the network status to be displayed in a number of different forms, ranging from a complete city to a small district as desired by the operator. It also addresses the needs of all stakeholders by providing customised data displays for efficient information dissemination and analysis.

Automatic network monitoring

Using Comet, integrated network monitoring is carried out automatically, comparing the current performance with the expected performance for a particular time of day. This takes into account variables such as school holidays, based upon continual historic profiling.

This means that operators only have abnormalities highlighted for action, reducing the amount of unnecessary time spent monitoring normal day-to-day operation.

According to the company's Systems Marketing Manager, Mark Bodger, Comet already delivers accurate, real-time information, enabling traffic managers to control and monitor their urban networks across a range of UTMC systems more easily. "Comet offers the advantage of a wide array of applications that add value and combine data from previously stand-alone systems," he said.

User interface

Comet provides user interface access via a dedicated GIS application installed on the client machine. The digital map display provides a complete view of the current network situation combining the information from all connected sub-systems in a single unified presentation.

An integrated approach

The cornerstone of the Comet system is a UTMC common database, both for simplicity of interfacing with existing IT systems and its proven ability to handle the largest database applications with ease. The database has been structured to support all of the Comet applications together with remote access from other UTMC sub-systems.

The UTMC database provides the ability to respond manually, or automatically,

to incidents with a range of commands to any connected system. Commands are actioned immediately or with appropriate time delays, providing a coordinated, consistent response to any incident across all systems with the minimum of operator involvement – allowing operators to manage the network rather than manage the systems.

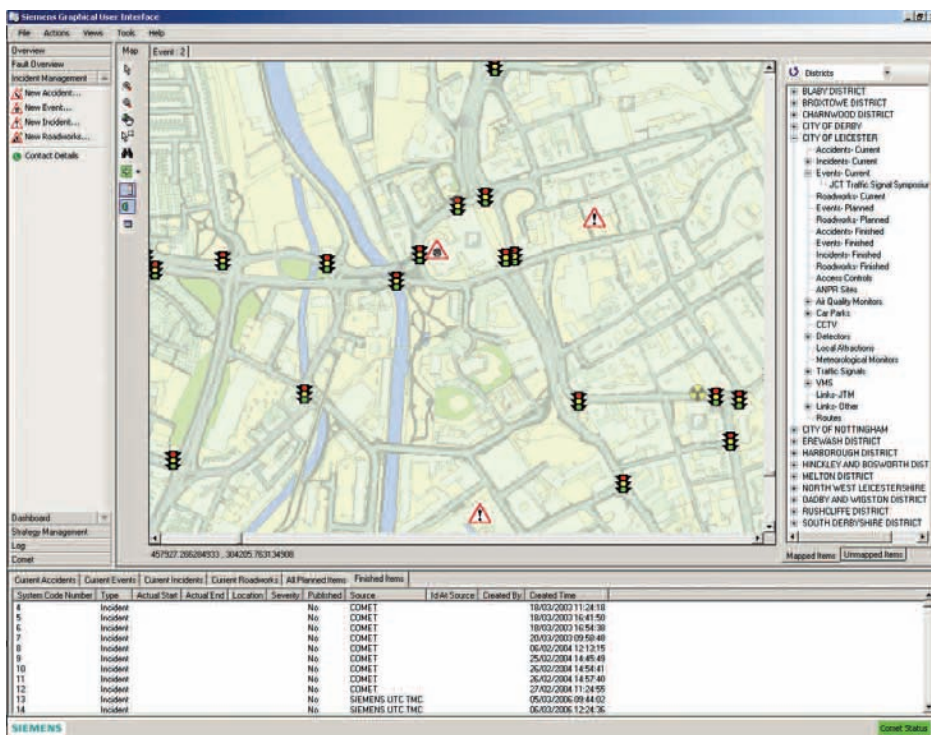
Mark Bodger added, "With Comet's intelligent technology enhanced by GIS digital mapping and supported by a UTMC common database, Comet can continue to reduce the workload for traffic operators whilst giving drivers better travel information, having a positive impact on traffic management across Britain for years to come."

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Congestion Charging extension

London's Congestion Charging Scheme is to be extended on 19 February when the charging zone will be widened in a westerly direction to cover Westminster, Kensington and Chelsea. Siemens was awarded the £60 million contract in 2005 by Transport for London to provide the camera and automatic number plate reading infrastructure which will be used to enforce the zone. The company will maintain the system, which involves over 650 ANPR cameras at 127 sites until 2016. Following the launch, the cameras will capture details of an estimated 1 million number plates every day.

Representing a considerable step forward over existing technology, the revolutionary Siemens solution will process vehicle number plate information at the roadside, reducing both the communications bandwidth required and the cost of the communications infrastructure.



System Code Number	Type	Actual Start	Actual End	Location	Severity	Published	Source	ISAM Source	Created By	Created Time
4	Incident					No	COMET			18/03/2003 11:24:18
5	Incident					No	COMET			18/03/2003 16:41:50
6	Incident					No	COMET			18/03/2003 16:51:38
7	Incident					No	COMET			20/03/2003 09:50:40
8	Incident					No	COMET			06/02/2004 12:12:15
9	Incident					No	COMET			25/02/2004 14:45:48
10	Incident					No	COMET			26/02/2004 14:54:41
11	Incident					No	COMET			26/02/2004 14:57:40
12	Incident					No	COMET			27/02/2004 11:24:55
13	Incident					No	SIEMENS UTC TMC			05/03/2006 09:44:02
14	Incident					No	SIEMENS UTC TMC			06/03/2006 12:24:36

Trends

Now you can begin to breathe more easily

Apollo Roadside Pollution Management System

Road vehicles are responsible for a significant contribution to the overall pollution levels experienced today. With the need to reduce pollution included in the European Directive for Air Quality, greater responsibility falls on Traffic Managers to minimise the environmental impact caused by increasing levels of traffic.

Apollo key features

- Proven, cost-effective and real-time measurement of roadside gas emissions
- Small, unobtrusive, remote roadside sensor units
- Interfaces to Siemens' OTU allowing use of existing communications infrastructure
- Sophisticated logging and display features available with Siemens' UTC system
- Provides strategy triggers for use within Siemens' Comet

With its easy integration into existing traffic control and monitoring systems, the Apollo roadside pollution management system offers a highly effective means to monitor and store pollution levels and, through Siemens' UTC and Comet systems, influence traffic patterns to manage pollution hot spots.

Apollo is able to record and store in real-time two common roadside pollutants, Carbon Monoxide (CO) and Nitrogen Dioxide (NO²) as standard, with other gases and particulates available on request. Depending on the type of equipment installed on-street, data can be sent back to the UTC installation in real-time via an OTU. Here the data can be supplemented with other information such as traffic flow, vehicle count and vehicle classification.

By using Siemens' Comet system, data from several Apollos and other triggers may be combined to automatically invoke pre-determined strategies designed to reduce pollution levels. Such strategies can include setting signs, introducing different traffic plans or diverting traffic away from the most polluted areas.



Legislation on air pollution

Introduced in January 2005, the EU Directive on air pollution stipulates an annual average limit of 40 µg of particulate matter per cubic meter of air. The daily maximum average of 50 µg/m³ may only be exceeded on 35 days per year; otherwise the EU Commission is authorised to impose fines.

All solids suspended in air, independent of their chemical composition, are subsumed under the term of 'dust' or 'particles.' Of special significance for human beings is the so-called 'fine dust' or 'particulate matter', which are invisible to the naked eye. These components constitute the biggest health hazard.

A study executed in the UK has shown that a considerable part of the particulate matter load is caused by road traffic, in particular in inner cities, since combustion engines produce a high proportion of the ultrafine particles, which are especially hazardous. Diesel engines produce a substantial portion of the smallest particles.

Intelligent technology could lead to a significant reduction in traffic-generated PM load. These include not only soot filters or the use of bio-diesel, but also optimized traffic management technology, such as Siemens Apollo.

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Events

Leading the way at Traffex



Our stand at Traffex 2005.



Our preparations for Traffex 2007 are already well under way and we look forward to welcoming you to the Siemens stand, C1, from 17 - 19 April where we shall be presenting a number of exciting new developments including a comprehensive range of equipment, systems and services, and demonstrating our growing reputation in the field of tolling and road user charging.

Having supplied and installed over 650 automatic number plate recognition cameras for the western extension of the

Central London Congestion Charging Scheme, we shall be showcasing the new scheme, and developing technologies, for visitors interested in tolling and road user charging.

In addition to showing our extensive capabilities, we will be launching a safer, greener and more powerful traffic control system designed to reduce energy costs and control busier and more complex junctions. Other systems and solutions on show include Comet GIS, PC SCOOT, pollution monitoring, MOVA 6 and new microsimulation links.

The 23rd Traffex exhibition will once again take place at the National Exhibition Centre in Birmingham. Firmly established as the international meeting place for everyone involved in the design, management and maintenance of traffic and highway infrastructure, it is the essential event for industry professionals to attend.

(Photos: centre and right) Siemens will be showing the technology for the new western extension of the Central London Congestion Charging Scheme, and a new safer and greener traffic control system.

Gain influence at user group meetings

If you ask Siemens' system users to identify the key benefits of operating a Siemens system, many will include the established user group meetings high on their list. The meetings give all users the opportunity to influence the future development of the company's systems directly and gain knowledge from other operating authorities.

Just a look at the growing attendance figures helps to clearly demonstrate how well regarded the meetings are within the traffic community. Last year over 115 delegates took time out from busy schedules

to attend the meetings, which were held over three days in November, a short distance from our main offices in Poole. The sessions provide Siemens' engineers with the perfect opportunity to present any new developments, and give attendees the chance to discuss any issues with industry colleagues, share best practice, and feedback on system performance.

In recent years, the meetings have been extended to offer training sessions and innovation generation activities have been incorporated to enable attendees to maximize the value of the sessions.

Helios goes green in Scotland

Helios, Siemens' LED energy-saving traffic signal, featured in an exhibition celebrating sustainable design held recently at the Museum of Scotland in Edinburgh.

Featuring the work of some of the country's top designers 'Green Design: Creativity with a Conscience' examined the growing demand for products that are both fashionably designed and environmentally friendly and looked at how products for people, homes and communities are increasingly being shaped to meet green demand.

As well as Helios, exhibits included a fully bio-degradable papier mache coffin and acorn-shaped urn to a maize bikini, a sustainable guitar made from agricultural waste and trainers constructed from recycled parachute material, car seats and prison blankets.



Streetwise gets 'caring hands'

A replacement pedestrian controller and crossing system has been funded and installed by Siemens Traffic at the award-winning Streetwise Safety Centre in Bournemouth, Dorset.

Extending an existing relationship with Streetwise, the refurbishment project forms part of the company's 'Caring Hands' programme and will help all visitors to the interactive education centre gain valuable experience of crossing the road in a controlled and safe environment.

The new equipment includes the latest push buttons incorporating audible and tactile indicators, a key benefit

for interactive safety training for a wide range of people including children, the elderly, families and home owners. Nicola Baker, Siemens Traffic Communications Manager said, "Raising awareness of everyday safety and good citizenship is high on the company's agenda and through our long standing association with Streetwise we can help local people benefit from the latest technology to be found in many towns and cities across the country."

We're backing British rowing



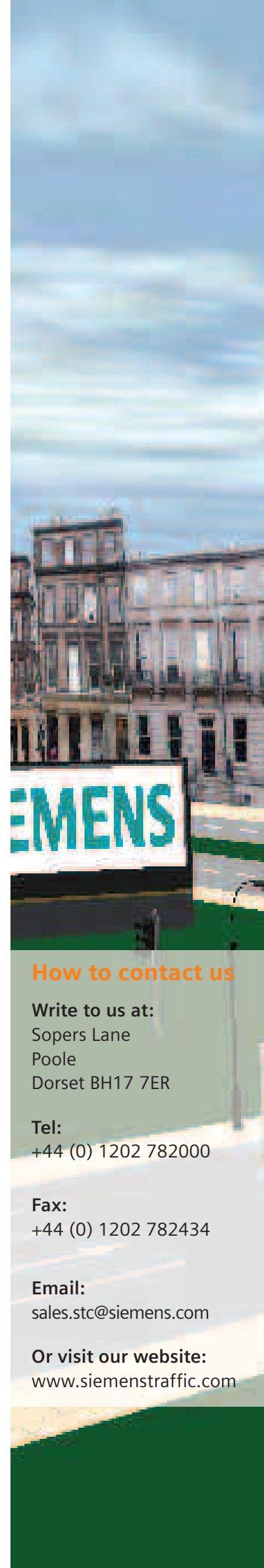
Siemens has announced a £3.2 million deal to sponsor the British Rowing Team. Aside from lottery funding, this investment is the most significant to be secured by British rowing from private sector sponsorship and will help the Amateur Rowing Association to identify and develop world-class rowers to give them the best chance of winning medals.

As the High Performance Partner, Siemens will work with GB Rowing on innovative ways to



assist the team's training and the performance of its men's, women's and adaptive (rowers with a physical or sensory disability) crews.

Funding will also be available to continue to develop the new national rowing training facility and to add value to the ARA's World-Class Start Programme, designed to support talented and emerging individuals. The deal will see Siemens sponsor the team until 2012.



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