



**TRAFFIC  
MANAGEMENT**

# Travel **easily** and **safely** in Lancashire

Submission by Lancashire County Council  
Category ~ **TRAFFIC MANAGEMENT**

National Transport Awards 2004



## National Transport Awards 2004

### Category ~ Traffic Management



#### Lancashire County Council Corporate Objectives:

Lancashire - a place where everyone matters and people can;

- Feel safe
- Lead healthy lives
- Learn and develop
- Work and prosper
- Get help if they need it
- Enjoy a high quality environment
- Travel easily and safely

In 1998 the Government White Paper "A New Deal for Transport - Better for Everyone" significantly moved the transport agenda away from relentless road construction catering for insatiable private car ownership and towards making provision for alternative, more sustainable modes of transport; providing better information on real conditions to the travelling public; and towards managing, rather than simply controlling, the use of the road network. Advances in ICT similarly began to introduce opportunities to manage and inform travel in new and proactive ways. These new technologies came to be known as Intelligent Transport Systems (ITS).

Whilst several authorities have begun to exploit the opportunities offered by such systems, they have been constrained by the proprietary approach taken to their provision. This has prevented such systems from being integrated in any way and such integration can add great value for users and operators of road networks, as can be shown in this case study.

The Lancashire Project hinges on an imaginative selection of a range of ITS, chosen through a visioning process with key stakeholder organisations, interest groups and agencies from the community, and crucially integrated through adoption of the **pioneering Urban Traffic Management and Control (UTMC)** concept to create efficiency in operation, a new proactive management capability, and additional benefits and services for a range of community stakeholders.

UTMC is a major DfT initiative that has been the subject of a **Demonstration Project by Lancashire, based in Preston**. UTMC centres on the development and commercial realisation of modular traffic systems using open standard communications protocols to achieve integrated network management by combining the benefits of ITS innovatively and cost-effectively.

We believe Lancashire has a winning formula in its intelligent transport strategy; firstly, key community stakeholders work together with the County Council to develop a joint vision of intelligent transport needs, in the true spirit of community engagement and leadership, typified by the vision statement. Secondly, these systems are integrated using the revolutionary UTMC approach. Finally, the information gathered by these intelligent systems is exchanged using a common database, allowing it to be processed and reused in new, imaginative ways, allowing greater

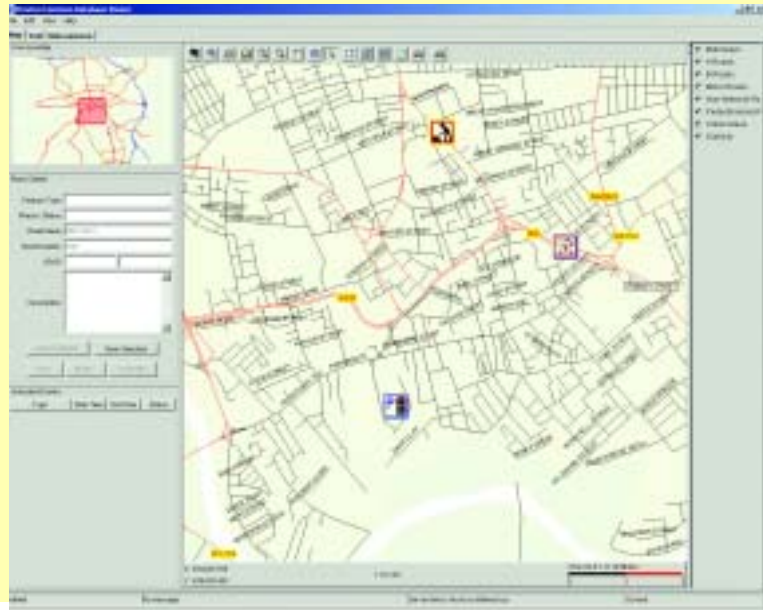
flexibility in controlling the road networks and the provision of high quality reliable information on conditions and events, to actual and would-be travellers.

The Preston Project is unique in many ways. At its heart, the common database and traffic control systems have been procured in open competition from a range of suppliers who have had to adapt their traditional systems to work in an integrated environment. This has both increased the scope for competition in the UTMC traffic control industry and created a new spirit of collaboration amongst suppliers, facilitated by Lancashire, resulting in a new era of interoperable equipment. The UTMC communication protocols have allowed Lancashire to reduce infrastructure and communication costs by transporting traffic data across the county on the Council's own corporate network which services the County's libraries.

The Preston system not only features a range of intelligent transport systems, but uses the UTMC system to integrate them in a series of novel projects.

The first project is one of **traffic information exchange between the County Council and the Highways Agency**, who operate the motorway network around Preston. Information is collected on motorway conditions from the Highways Agency's QMISS database, using the Travel Information

## Preston Project Database and Management System



Highway, a UTMC compatible communications standard. Information on the traffic situation on County Council routes between Preston city centre and the motorway network is also collected by measuring flow patterns using detectors in the roads and by using automatic number plate recognition (ANPR) cameras to measure journey times. This information can all be processed by the common database, allowing electronic signs to be set advising traffic of the best routes to use at any particular time. This project opens up both the opportunity for a real working partnership with the Highways Agency and the scope for added value with the Police, who are interested in using the ANPR cameras for enforcement purposes.

The second project is the collection of data from Preston's major car parks on space occupancy and the redistribution of this information to people planning to park, via on-street electronic signs, and through a website.

The third project is the provision of real-time bus arrival information at numerous stops across Preston. Whilst such systems are becoming quite common in many urban authorities, the Lancashire UTMC approach again creates extra value. Because Lancashire are providing visual access to the common database for their key stakeholders via remote "viewers", the bus operator will be able to monitor progress of his fleet and instruct drivers to adjust their headways if they get too close or far apart, providing a more reliable service to the public.

Additionally, the County Council Emergency Planning Officer can use his "viewer" to set messages on the bus stop signs warning of flooding, a new and imaginative way of adding value to the system, with the full support of the Environment Agency.

The fourth project is the provision of a "rising bollard" access control at the entrance to Preston's busiest shoppers car park. When the car park is full, queues quickly tail back onto the adjacent road network, grid locking access to the railway station and the city centre. Under a novel partnership agreement with the operators of the shopping centre, the centre staff will raise the access bollards when this occurs and queuing vehicles are then redirected by electronic signs to alternative car parks, removing the problem.

Lancashire have therefore not simply introduced new technologies in a disparate and disconnected fashion, as in many other areas; the County Council have integrated these in the UTMC environment to combine the different data types in new and interesting ways, demonstrating novel community leadership and striking up innovative partnerships in the process. In doing this, Lancashire have guided the key system suppliers through an industry revolution, moving from a paradigm of proprietary systems to one of effective collaboration and interoperability, and creating better value for purchasing authorities.

## Real Time Bus Information



The UTMC approach provides a cost-effective and flexible platform to ensure there is capacity to accommodate new intelligent transport systems as they emerge, and to spread this proactive network management and information approach across Lancashire, but limiting costs by using the County Council's existing corporate communications facilities.

At a time when the DfT are still trying to engage local authorities in recognising the potential of technology for managing our road networks more efficiently, Lancashire are pushing ahead towards the aspiration of a **"Total Transport Network"**. The ITS studies which have been carried out provide a basis for matching technological solutions with more traditional traffic management infrastructure to give a fully integrated, "total" approach to transport in the County.

## National Transport Awards 2004

Category ~ Traffic Management

### Park and Ride

*"Since opening over 1,500 vehicles per day have used this facility"*



### Traffic Information Exchange



### On-Street Electronic Signage

*"The £1.25million pilot includes a car park management system with on-street variable message signs"*



### Rising Bollard Access Control

*"We want to be able to pick out the best technology available and integrate it with our existing systems"*



### Journey Time Monitoring System

*"Journey times can be logged and drivers warned of delays"*

