



intelligenttransportsolutions



Urban Traffic Management and Control Systems

Supporting the operator in reducing congestion and maximising network efficiency.

www.peek.co.uk

Peek Traffic Management System (TMS)

Peek is the leading provider of intelligent solutions that solve ITS transport problems; delivering benefit to our customers and enabling their goals and requirements to be achieved.

For over 30 years, Peek has been developing innovative products and systems that enhance traffic management across the highway infrastructure. Our Urban Traffic Management and Control (UTMC) systems have been deployed in many locations around the World and are supporting and enabling our customers to implement the most advanced traffic management schemes, maximising efficiency whilst minimising the impact on the environment.

The Peek TMS is an established Urban Traffic Management and Control solution, providing a powerful tool for the modern network operator.

It offers a UTMC compliant central control platform for the coordination, monitoring and management of urban traffic. A single user interface allows for simple monitoring of the whole network, enabling the user to ensure that appropriate control strategies are being implemented.

The stable and robust environment delivers a reliable system solution that supports a mixed approach to signal control; fixed time UTC (with or without SAPS), SCOOT, MOVA and the option of remote monitoring depending upon the communication method. This enables the user to select the optimum strategy to improve network performance and reduce congestion.

Key Features:

- Latest version of SCOOT (Split Cycle Offset Optimisation Technique) algorithm
- Peek SAPS – System Activated Plan Selection
- Real time and/or dial up monitoring and control of traffic
- Mode Fallback Facility enabling the use of UTC and MOVA via a single Chameleon® Outstation
- Emergency vehicle green wave priority routing
- Bus Priority – RTIG compliant interface
- Ease of operation via the Graphical User Interface (GUI)
- Integrity Server based Open VMS operating platform
- Adaptors for third party UTMC compliant equipment



Additional features and functions provided by the Peek TMS SCOOT system:

ASTRID/INGRID Providing comprehensive graphical feedback on flow, delay, congestion and occupancy for future planning, and online for historical flow data, ASTRID is a valuable enhancement to SCOOT. Incident Detection is provided through the INGRID option within ASTRID.

Public Transport Priority By enabling all forms of public transport priority to be fully considered, the Peek TMS can be used to encourage a modal shift to a more environmentally friendly method of journey type.

Emission Simulation SCOOT includes simulation of the polluting effects of urban traffic and the graphical display of emission estimates of CO, CO₂, NO_x, particulates and Volatile Organic Compounds.

Emergency Vehicle Priority Green Waves and priority facilities provide immediate responses to the subsequent traffic delays to restore normal network operations effectively.

Parking Management Reducing the delay in searching for available parking by providing accurate management of car parks and sign control is a widely used facility.

SAPS – System Activated Plan Selection

Further reduces the need for high communication costs.

This feature enables the user to implement alternative signal timings according to traffic conditions, without the need for a fully adaptive control system. Controllers can be connected as and when required, rather than full time.

- Selects different fixed time plans in response to flow and congestion
- Apply selected plans to individual intersections, regions or a whole area
- SAPS allows combinations of flow, occupancy and queue detectors, as well as SCOOT detectors if the SCOOT strategy is in use
- Cater for complicated conditions – logically combine detectors used by the SAPS programme
- SAPS can be turned on and off by operator, timetable and time of day

Graphical User Interface (GUI)

Allows ease of operation

- Area, sub-area and intersection detail
- Menu and/or mouse driven
- Real time intersection monitoring
- AUTOCAD compatible
- Mapping Support

UTMC – Empowerment through flexibility

Modern traffic control systems need to demonstrate best value to their users, who have a range of competing spending priorities. The Urban Traffic Management and Control (UTMC) initiative defines a series of interface standards and Peek has been involved in UTMC since the beginning.

The Peek TMS implements and supports the latest published UTMC data objects and MIBs to enable our system to operate alongside equipment supplied by other manufacturers, at both the instation (via server to server links) or at the outstation (via the relevant equipment MIB).

A further benefit of UTMC has been the adoption of SNMP as the protocol of choice. This has opened up a range of possible communication options – moving away from standard fixed line telephone networks and the revenue costs associated with this method. The Peek TMS can operate over a variety of fixed, wireless, and hybrid systems, enabling the network operator to select the most cost efficient communications solution.

- Wireless (MESH,802.11)
- Fibre
- XDSL
- GSM
- PSTN
- 3G



SCOOT

The World's leading real time adaptive traffic control algorithm for Managing Congestion, Communications and Control.

The current version of SCOOT has enhanced features to manage communications, congestion, and control strategies. It is capable of operating with time stamped data, moving away from the requirements for expensive second by second communications infrastructure.

- Enables the effective coordination of groups of signals as it responds intelligently to the traffic flow changes/fluctuations
 - Maximise the efficiency of the road network and reduce congestion – beneficial to the environment and economy
 - Minimises the impact of incidents and events on the highway infrastructure
- Cost effective and efficient solution for plan changes – no reliance on timetable / plan library
- Enhanced capabilities for the management of congestion, bus priority strategies and puffin pedestrian facilities
- Time stamping of data for packet based communications – no requirement for second-by-second data transmission network
- Congestion Supervisor – runs in background searching for and analysing congestion problems
- Typically reduces urban traffic delays by an average of 20%

Peek has a large number of installations worldwide and is one of the key members of the steering group responsible for the delivery of SCOOT systems. In addition to the many features offered with the Peek TMS software, the latest version of the SCOOT algorithm is supported and implemented.

For more information on SCOOT visit www.scoot-utc.com.

Chameleon® Outstation

A flexible and adaptable communication Outstation.

Chameleon is capable of providing the interface to traffic signal controllers under all operational modes including UTC, remote monitoring, MOVA or a mixture of different control strategies.

It contains a powerful processor enabling local control, detection and data processing to be carried out at the roadside, whilst also offering a flexible approach to interfaces, operating over fixed line, wireless or hybrid communications infrastructures. Chameleon is designed as a cost effective solution for traffic Outstation applications (OTU/OMU), using the latest technologies to provide a robust and versatile platform for a variety of applications.



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Peek is a leading supplier of intelligent transport solutions. For more than 30 years, the firm has been providing advanced traffic control products and systems, management and maintenance services for both the urban and highways markets. Peek's established and proven portfolio includes traffic management systems incorporating SCOOT, highway congestion management and enforcement systems, vehicle detection systems, exterior lighting, as well as supervisory and communications systems. Peek is ISO 9001:2008 and ISO 14001:2004 certified.

With headquarters in Basingstoke, Hampshire, Peek employs more than 500 staff throughout the UK. Peek is part of the Traffic and Infra division of Imtech NV, a global technology services provider based in the Netherlands.

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