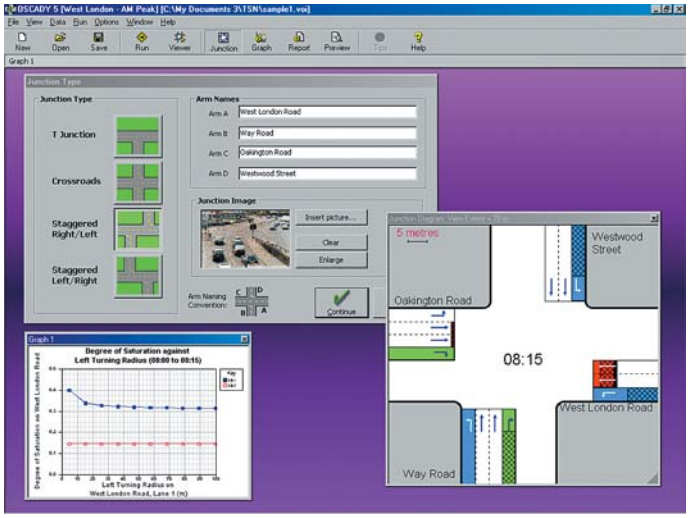
Traffic Software News

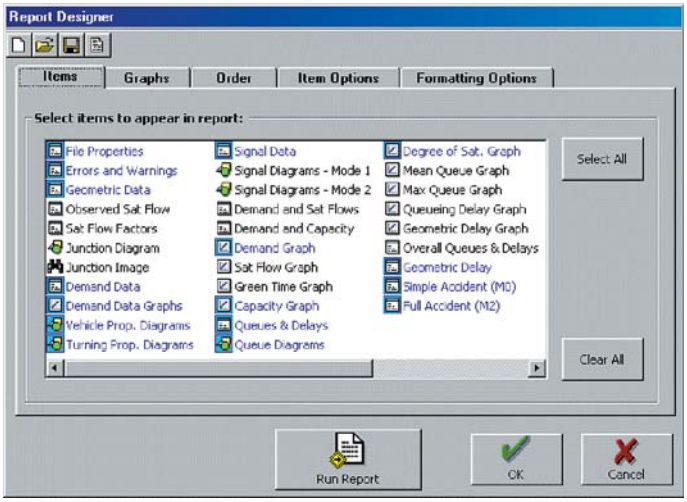
Quarterly Issue No. 25. March 2003 TRL Limited

OSCADY 5 - Alive!

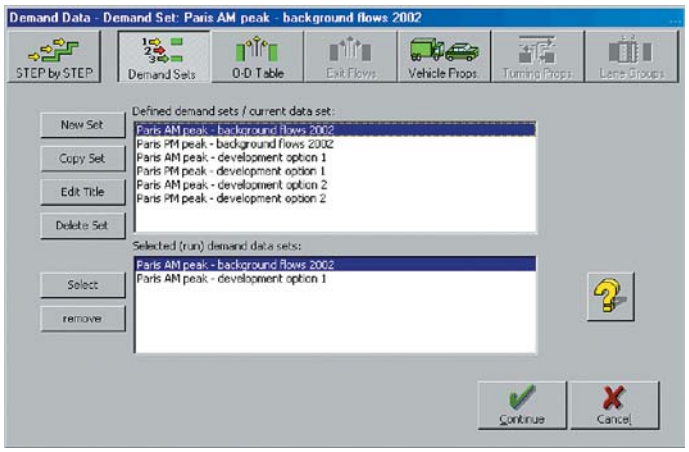
As of the 1st March 2003 OSCADY 5 is available to buy. Our previous edition of TSN talked about the many new features in OSCADY 5 such as the new report generator; the new graph generator; the improved junction schematic and queue animation; the ability to specify multiple demand sets, and the new accident prediction for 3-arm junctions. What was noticeable was the lack of any pictures to really show how OSCADY has been transformed! We've all heard the saying "a picture paints a thousand words" and we definitely don't have the space for quite so many words, so we've decided to show you this time as many pictures as we can. I think, you'll agree that the pictures more-or-less speak for themselves.



A whole new look for OSCADY! Queues and queue animations are presented on a new junction diagram – different colours represent different lane groups



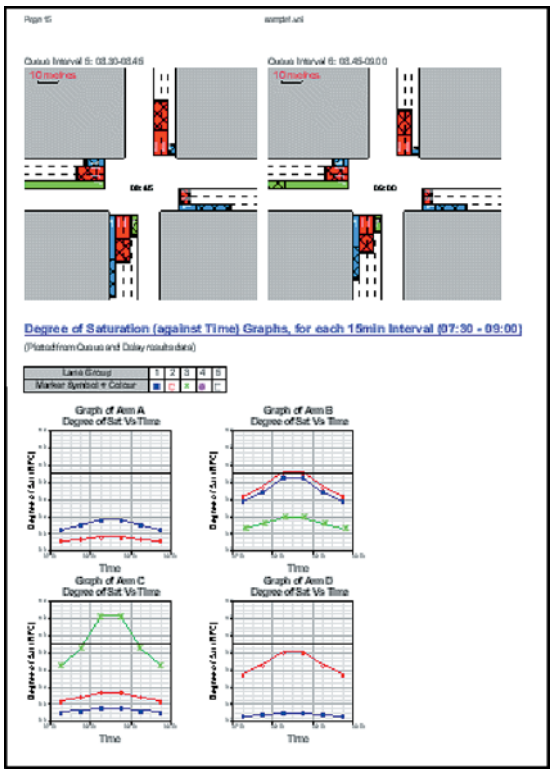
Any combination and order of output items may be selected by the report designer to produce a high quality, customisable report



Re-designed demand flow data entry includes multiple demand sets

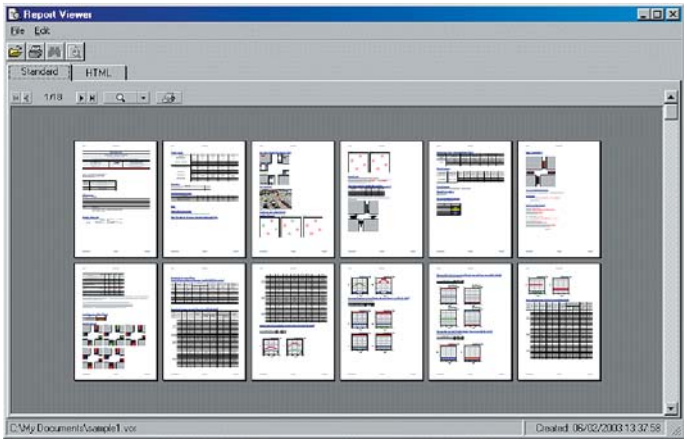
The arrival of OSCADY 5 is the culmination of a programme to update the output of TRL's junction design programs, and will be applied to ARCADY and PICADY. Users have been pressing for updates in this area for some years. OSCADY 5 redefines the standards expected of TRL's traffic software. Users now have a flexible and straight forward way of getting the information they want in the order they want into reports in an attractive and clear manner.

Software Bureau

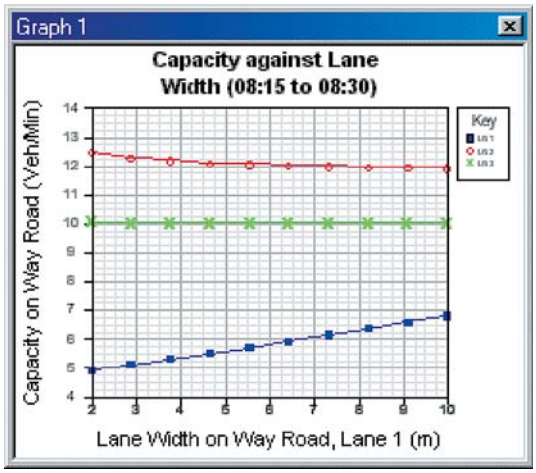


A typical page from the new customisable report

CONTINUED OVERLEAF



Report Viewer shows thumbnail view of a report – 'Standard' and HTML formats available



The new graph designer can produce graphs of various combinations of parameters. The effect on capacity of changing the lane width is clearly shown, on this graph.

NEW RESEARCH CONTRACTS

TRL's Transportation Division has recently been busy bidding for new DfT research and development contracts in the traffic area. As a result we have won 7 new research contracts with a total value of over £1,000,000. The projects range from studies of the safety record of MOVA at high speed sites to the inclusion of full PUFFIN crossing capability within SCOOT to a review of new technologies in vehicle detection. All the contracts are linked to traffic signal control. Three of the projects are looking at various aspects of signal control on high speed roads (defined as roads where the 85th percentile speed is greater than 35mph). They are the MOVA safety project, mentioned above, a review of the use of signalised pedestrian crossings on high speed roads and a review of the operation of current control systems for signals on high speed roads (Speed Assessment (SA) and Speed Discrimination (SD). SA and SD were invented in the 1960's, and vehicle and detection characteristics have moved on enormously since then. The work will review the definition of the dilemma zone and assess whether 35mph remains the correct divider between standard and high speed roads.

Another MOVA project is the development of a version aimed at use in urban areas where the speed limit is 30mph. The detection system for MOVA can be costly to install, and the project is researching the best way of reducing the number of detectors and their distance from the signals, with minimum reduction in MOVA's proven delay benefits.

Some of these projects will lead to either improvements or new versions of existing TRL software products.

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JUNCTION STUDY IN BREST

TRL Traffic was recently involved in a junction study on the outskirts of Brest, in Brittany. TRL were called in because the Commonauté Urbaine-de Brest (CUB, essentially Brest City Council) wisely had concerns about a proposed ring junction development of a key set of signals. The signals are located where the main road into Brest from the east meets the partial ring road round the city.

At present, the junction is only moderately overloaded for about 20 minutes in the peak periods, with unbalanced queues, which suggests that a better control system could alleviate the queuing. Current traffic loads are somewhat below normal due to nearby major roadworks.

The proposal was to replace the existing signals at a four arm "scissors" junction with 4 closely spaced small roundabouts, arranged in two pairs. The queuing space between the two roundabouts in each pair was limited to a couple of vehicles. ARCADY runs performed on the assumption that these roundabouts were each operating in isolation rapidly established that the proposed design was unworkable, and that as extra space was unavailable, a satisfactory layout of this type could not be produced. TRL therefore quickly reviewed the existing signalled junction for possible improvements. There are two heavy left turn movements at the junction, and by using available space to provide 2 lanes instead of one for each of these movements, TRL were able to come up with a design offering a 25% increase in capacity, expected to cater for currently planned traffic growth.

The revised signalled junction was modelled using OSCADY, and the opportunity was taken to use the new OSCADY 5 in a real life test of the program, and to impress the client with the much improved output from the program. It was also suggested

that the client consider the use of MOVA at the junction, which created great interest. The existing control system is the standard French VA system which uses one detector for each phase located 15m before the stopline and giving a 3.5 second extension. The visit concluded with a presentation of the proposal to the elected members of the City Council.

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Partnership with Infrasoft

As part of the new investment programme in TRL software, we have just agreed an exciting new development in partnership with Infrasoft. Infrasoft is the leading UK supplier of CAD road design software and many of our readers probably use its systems.

The initiative links Infrasoft's MXROAD CAD drawing system with ARCADY, so that the joint software automatically inputs geometric data to ARCADY. ARCADY then requires the traffic data, as before, following which it gives predictions of capacity and delay etc. for the roundabout design. Changes to the drawing will automatically alter the geometric ARCADY data, following which new traffic predictions can be provided. Another major advantage will be that the Entry Path Curvature will be calculated automatically, thus removing the subjectiveness inherent in the current ARCADY program.

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60,000 CarSharers and growing

TRL's CarShare on-line software continues to move from strength to strength with the arrival of new features which continue to make the task of car-sharing easier for its 60,000 users throughout the UK. Bracknell Forest BC is the latest organisation to buy in to CarShare, adding in another 1500 potential users, to swell the numbers of the soon to be launched Thames Valley CarShare scheme.

Built using the latest internet technology, and utilising easy to use digital mapping, the advanced search engine now allows users to find the best possible match from all the carsharers within their system. A sophisticated waypoint classification allows greater interaction with carsharers along particular routes, meaning the scope for finding a particular carsharer is greatly increased. Other significant changes include the addition of point-to-point journeys that can be narrowed to individual days, meaning that inter-office car travel or office-to-airport journeys are simply a matter of a couple of mouse clicks.

The CarShare system allows the company to restrict matches to within the company, or to allow matching with employees of other nearby companies. Naturally, the more companies using the system in a local area, the better the chances of finding good journey matches.

Previously restricted to people with Internet access, the new terminal add-on allows access to the system for workers without internet access, so now all the company's employees can enjoy the benefits of the CarShare scheme.

Companies will want to know that CarShare offers security to their staff. Potential sharers can initially only contact each other through their business e-mail addresses, and the system does not contain any home addresses or phone numbers. The system has been explicitly designed to offer the maximum security to all users.

For more information and to see why companies such as BT, EDS, KPMG, Nokia, Phillips, HSBC, Oracle, Pzifer and now Bracknell Forest BC have signed up to use TRL's carsharing software, please see the leaflet included with this edition of Traffic Software News, or call TRL's Software Bureau on +44 (0)1344 770758 (softwarebureau@trl.co.uk) where we will be happy to answer any questions.

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Traffic workshops - ever popular

February saw another 14 traffic engineers attend two TRANSYT workshops run at TRL. The numbers reflect the continuing trend towards more training in the traffic area. We are now typically running 4 TRANSYT and 4 ARCADY/PICADY workshops each year at TRL. Although we have not run OSCADY workshops at TRL for some time, we are expecting demand for OSCADY workshops to pick up to the same level with the release of OSCADY 5 (see article on page1). We are expecting to run two OSCADY workshops in Malta, for the Transport Authority.

The next workshop will be an ARCADY/PICADY workshop in April, so time is getting short to get your booking in! You will find a booking form enclosed with this copy of Traffic Software News.

There will also be a SCOOT workshop in May. These have been brought into line with the other workshops and now comprise a maximum of 9 delegates on each workshop, giving a more personal atmosphere and permitting more individual tuition. Again if you wish to book, use the booking form supplied with this copy of Traffic Software News, or book via e-mail to the Software Bureau or via the software web site, **www.trlsoftware.co.uk** .

Do not forget that we can run workshops tailored in length and content to your requirements at your offices. If you have 5 or more people to be trained, and you are far enough away from TRL that overnight accommodation would be required if attending a TRL workshop, then it often proves more economical to run the workshop in house. Again contact the Software Bureau for details.

John Peirce
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COURSES, SEMINARS & WORKSHOPS 2003

ARCADY/PICADY
2 DAY WORKSHOP
1-2 April 03
Course Fee £500
(£450 Maintenance Holders)

SCOOT
A 2 DAY WORKSHOP
14-15 May 03
Course Fee £650

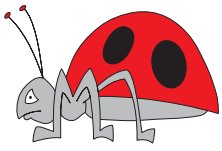
All prices exclude VAT

Places are limited (9 delegates for each course) so if you are interested please register now to avoid disappointment

Contact the Software Bureau

More dates will be announaced next time

BUG BOX



NO BUGS TO REPORT THIS TIME

A GOOD IDEA AT THE TIME!

In the early eighties, TRL experimented with a low cost balloon for recording data photographically for junction control trials. The first (and only!) such trial was in support of the MOVA development programme, during trials at the Three Tuns crossroads at Earley, near Reading. All went well for several days, with the balloon located over the middle of the junction taking video and time lapse pictures using a fish-eye lens and getting good views of the queues down all four arms.

One day, the balloon owner/operator, keen to demonstrate the all-weather capabilities of the device, injudiciously launched it in 'near gale force' winds as the morning peak was building up. On a short tether, the balloon was extremely unstable and repeatedly swooped low across the middle of the junction as the operator tried to pay out the cable. How it never hit a passing vehicle, or didn't cause one to crash, I do not know!

Eventually, with the cable now long enough to reach the far side of the junction, the balloon swooped once too often and wrapped itself round chimney pots on a house, bringing two down. The balloon of course burst, and the fish-eye lens scraped down the roof. Exit the balloon as a way of collecting experimental data! Those who had to analyse the video data were not too upset as the camera platform was not gyro-stabilised, and as the balloon yawed from side to side they got a crick in the neck following the movement!

A balloon launch...

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CURRENT PROGRAM VERSIONS

ARCADY 5	V5.0 AD/1.1
PICADY 4	V4.1 AM/3.0
OSCADY 5	V5.0 AA/1
TRANSYT 11	V11.1 AI/1.6

(All above have Right/Left capability)

TPM	V2.0
STM	V2.2b
BUNDLE 3	V3.0 Issue 2
MOVASETUP	V 4.0c
CONTRAM 8	V 8.1f
MAAP *for Windows*	4.20
*Safe*NET	1.02

Who's Who in Traffic Software

Ian Henderson

Ian joined TRL from the computer games industry. He has a BSc in computer science from the University of Southampton, and is a proficient C programmer with experience in C++, Java, computer graphics, and web and database technologies.

As part of the software development team, Ian is developing an optimisation for MOVA and acquiring a broad knowledge of MOVA at the same time. He is also involved with the Road Note 39 software, and is gaining on-site experience in a review of emerging detector technology.

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