



A NEW LOOK FOR TRL

Check out our new TRL logo (top right).

Our mission remains, our commitment to our customers is second to none.

In line with this new look, we have created a Software Bureau Logo (bottom left).

This will help you to identify our products and to be assured of quality and value.

Accept nothing less!

Driving - Indonesian Culture.....

TRL has for a more than a decade been involved in transport-related projects in Indonesia. The latest project is to produce Standards and Guidelines for the design of urban roads, including junction design. Driving conditions on the extremely congested streets of Jakarta are very different from those in the UK. Congested stretches of urban 3 lane motorway will routinely queue 5 abreast, 4 on the carriageway and the fifth on the (narrow) hardshoulder! Red light running is endemic – the Indonesian Highway capacity Manual (IHCM) quotes an *average* 4.8 seconds start up lost time and end lag! Data from the IHCM shows that it takes between 10 and 15 seconds to establish full saturation flow. As a car passenger, the moment you stop in a queue at signals, you are aware of a continuous stream of small motor-cycles weaving their way around you through the already close-packed queue of vehicles. By the start of green, they will be 2 – 3 deep across the entire width of the carriageway. Being vulnerable, they must wait until the last of the red runners has passed, thus reinforcing the ability of cars to run deep into the red. Another 'technique' used at signals on single carriageway roads is for



right turning traffic to queue on the "wrong" side of the road and then immediately turn right at the start of green, forcing

opposing traffic to wait until they have cleared. Despite (or maybe because of) all this, accident rates at junctions are

low, probably linked to the comparatively low speeds.

John Peirce

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TPM AVAILABLE TO CONSULTANTS FROM EARLY 2001

Up until now TRL's Transport Policy Model, (a new low cost modelling tool designed to assist Town and Transport Planners make informed transport policy decisions for their towns and cities), has only been sold to Local Authorities and Educational Establishments. Traffic Consultants and other organisations will be pleased to know that as from January 2001 they will be able to purchase TPM. For further information please ring the Software Bureau.



USER GROUP MEETINGS

THE RESULTS OF OUR QUESTIONNAIRE

One of the important benefits of being a Maintenance Agreement holder is the right to attend our annual User Group Meetings which have been held here at TRL. The User Group Meetings give our customers the opportunity to air their views about relevant software issues and to discuss common or difficult modelling problems. It is our aim to make User Group Meetings as beneficial to our customers as possible and so we asked you to complete the questionnaire which was enclosed with the September issue of the Traffic Software News (TSN).

Here are our findings:

56% of you would prefer the meetings to be held in either Birmingham or London.

Cost and time appear to be two problems which prevent many of you from attending. (Time is a major problem for many).

83% thought that an Internet Chat Page would be complementary to, rather than a replacement for, User Group Meetings.

In order to encourage you to attend future User Groups, we know that we need to improve the format of the meetings to ensure that we give as much value as possible.

As a result of your replies, we have found that you would like the following aims and topics to form the basis of any future User Group Meeting; a). Assistance with solving difficult and unusual modelling problems; b). Help and advice

from TRL staff about modelling standard situations; c). Customer requirements to be taken into account for future software developments.

We plan take your requests into account when formulating our 'new look' User Group Meetings. We will also consider a new venue in accordance with your location preferences.

Our new, much improved, TRL Software Bureau website will

be launched in the near future. The new site will be easier to navigate and will include a forum for discussion about TRL software products and their use.

**THANK YOU TO
THOSE CUSTOMERS
WHO TOOK THE TIME
TO COMPLETE OUR
QUESTIONNAIRE**

*Gareth Roberts,
email: roberts@trl.co.uk*

M60 OPENING – TRL MODELS INTERCHANGE SIGNAL CONTROL

A new section of the M60 opened at the end of October, providing the 'missing link' in the motorway ring around Manchester. Shortly before the opening, TRL was asked to help with a particularly difficult signalling problem at the M60 interchange 24 at Denton. The signalised roundabout now has to handle traffic from the newly-opened Southbound M60 exit slip, along with traffic from the M60 Northbound slip-road, the M67 Westbound exit, and the Eastbound and Westbound A57 dual carriageway approaches.

Previous modelling using TRANSYT had shown that the current interim layout of the interchange would be unlikely to cope with the expected traffic, and that developing suitable signal timings was proving very difficult. For this reason, TRL was called in by Parkman Ltd (acting as agents for the Highways Agency), to add their specialist TRANSYT expertise to the design process.

Staff in the TRL Traffic Group were able to respond rapidly to this request, by remodelling the interchange and examining numerous potential options. Within the week, they had provided the client with linked signal timings for three separate time-of-

day plans. These plans were designed to a) ensure free-flow around the roundabout, b) avoid unacceptably long queues back onto the main line of the M60, and c) store excess peak period arrivals where they were expected to cause least disruption.

The client immediately installed the timings on site, to meet the motorway-opening deadline. Only minor, green-splits, adjustments were needed to cater for the actual as opposed to predicted arrival flows. Once some up-to-date flows have been counted, TRL expect to remodel with TRANSYT, and finalise the timing plans. Once again TRANSYT has shown its versatility in a complex signal control situation.

Peter Webb, email: pwebb@trl.co.uk

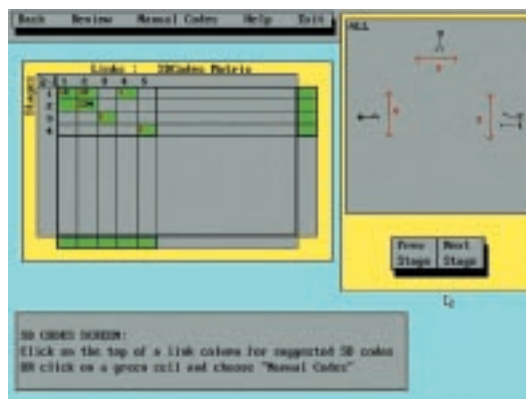
MOVASETUP plus the SDCODE generator facility

A new version of the MOVASETUP program has been developed. MOVASETUP is the program used to create or amend datasets required to configure the MOVA control system to work at a particular site.

The latest version of the MOVASETUP program includes a new subprogram called the SDCODE generator facility. This new program assists with setting of the LGREEN and SDCODE data for the many commonly found sites. These data have previously not always been easy to set up.

For the first time, a pictorial representation of the site can be entered, by defining the positions of arms around the junction, plus traffic and pedestrian movements (links). Further information is entered about opposed and unopposed right turn movements before the LGREEN matrix is automatically completed. The program next displays the incomplete SDCODE matrix and provides features to suggest suitable codes, or to allow the user to set them manually. See Figure.

Once the SDCODE matrix is complete, another extremely useful facility can be employed which allows a complete review of the SDCODEs that have been entered. By allowing demands to be set for selected links, it is possible, starting from any stage, to see what the next stage will be. One added benefit of this facility is that it can be used whether the SDCODEs have been set



manually or automatically using the new generator.

The first users of this new version of MOVASETUP will be those people who are kindly helping us with an ongoing DETR project to investigate the safety benefits of MOVA at high speed installations. General availability (including release to the manufacturers) is expected in the New Year.

Mark Crabtree, email: mcrabtree@trl.co.uk

Fiji and Mauritius Become the First Users of MAAP for Windows Version 4



The accident storage and analysis system in Fiji was upgraded in 1993/94 with the introduction of MAAP_{five}, the last DOS version of TRL's Microcomputer Accident Analysis Package (MAAP). Since that time, the data are used on a routine basis both by the Traffic Accident Road Safety Unit (TARSU) in the Department of Works and by the National Road Safety Council (NRSC) in the diagnosis of current problems and planning their action programmes. Also, the annual Traffic Accident Statistics report published by the Fiji Police has been produced using this system.

Earlier this year, TRL was awarded a contract by the Asian Development Bank (ADB) to upgrade this system to the latest version of MAAP (MAAP for Windows). This was part of the Fiji Road Safety Action Plan Component of the ADB's Fiji Roads Upgrading Project - Phase III (FRUP III) being undertaken by the Public Works Department.

The MAAP for Windows system became operational in May 2000. For the mapping modules, it incorporated the GIS digitized maps developed by the Fiji Land Information System (FLIS). All Year 2000 accidents are being directly entered into the system and six years of back data (1994-99) have been converted. A small network of computers within the Accident Data Unit at Police Headquarters has recently been established.

The overall purpose of the work is to improve the capacity of the PWD, the Police and the National Road Safety Council to analyze the data, to enable more effective planning of countermeasures and enforcement exercises, and more effective targeting of publicity towards high-risk road user groups.

A new accident form was designed for the capture, storage and use for analysis for the island Republic of Mauritius. This form was designed by TRL to fit in with MAAP for Windows. MAAP was installed and training given in October 2000 at the Road Safety Unit of the Ministry of Public Infrastructure, Land Transport and Shipping of Mauritius.

The Police would be trained by the Ministry to use the new form that would then be passed to the Road Safety Unit for storage into MAAP for Windows and used for subsequent analysis.

Andrew Morrison, e-mail: amorrison@trl.co.uk

USE OF TRANSYT FOR SIGNALISED ROUNDABOUTS

Issue 12 of TSN included an article on the 'mean maximum queue' in TRANSYT. This explained how to interpret the MMQ value in the TRANSYT output, and discussed the variability of queues cycle-to-cycle. In particular, it explained that we have no exact information on how much bigger than the MMQ the worst-case queues might be, but some crude rules of thumb were discussed.

Feedback following that article suggests that some users of TRANSYT may have taken what was written in a more rigid way than was intended. In one case, it appears that a customer subsequently specified that a signal system on a roundabout should be designed so that the MMQs were never more than 50% of the available queuing space on circulating links.

The article was intended to explain the meaning of the MMQ, and did not attempt to define precisely how TRANSYT should be used in the design process to produce timing plans. Often, practical constraints mean that any solution may be less than ideal. It is up to the design engineer to understand the modelling and optimisation process, and to make appropriate use of the various facilities (such as Limit Queues and Link Weighting Factors) to produce the best, acceptable solutions.

Defining what are, or are not, likely to be practical working solutions requires experience

and judgement. The design engineer must examine the results that are output from TRANSYT to see when precisely the build-up of queues on critical links takes place in relation to the red and green times. This examination will usually require use of the GRAPH program (see AG28 or AG35 'Associated Programs' section). Also, it usually helps to output the IN and OUT patterns using Card Type 35.

Sometimes, the designer of signal plans for roundabouts/gyratories will find that MMQs which exceed the normal limit queues can be tolerated provided that the cycles when bigger-than-average queues occur do so when any blocking-back merely inhibits for a short time the passage of more traffic entering the system. Conversely, if they occur when blocking-back would inhibit the passage of circulating traffic, then this is usually unacceptable because it is likely to cause lock-up of the roundabout. What one is particularly looking out for is

the well known shock-wave effect where an arriving platoon experiences a brief delay while a standing queue clears downstream. Such shock-waves cause large MMQs in the TRANSYT results, which may or may not be tolerable depending on their timing.

In conclusion, TRL is not attempting to define new design standards, but is explaining how the TRANSYT 'Traffic Network Study Tool' can assist signal engineers.

*Ray Vincent,
email: rvincent@trl.co.uk*

FROM BUG BOX

Using TRANSYT on a network server: Not really a bug but a restriction

When TRANSYT 11 runs data files, a temporary directory called T11TEMP is used to store temporary files required in the calculations. The directory is emptied (but not removed) when TRANSYT 11 is closed. Because TRANSYT 11 was originally developed as a single user application, there are some potential problems relating to the use of this temporary directory when the software is installed on a network server. Firstly, all users must have write access to the TRANSYT 11 folder on the server otherwise the T11TEMP directory will be unusable and an error will be reported. Secondly, temporary files in the T11TEMP directory will be removed whenever any user closes an instance of TRANSYT 11, subsequently deleting temporary files belonging to other users. A future release of TRANSYT 11 will allow each user to specify their own T11TEMP directory thus eliminating the problem.

COURSES, SEMINARS & WORKSHOPS 2001

ARCADY/PICADY WORKSHOP

2 DAY WORKSHOP IN FEBRUARY

Course Date 6-7/2/01

Course Fee £600
(£540 Maintenance Holders)

OSCADY WORKSHOP

1 1/2 DAY WORKSHOP IN FEBRUARY

Course Date 8-9/2/01

Course Fee £450
(£405 Maintenance Holders)

TRANSYT WORKSHOP

2 DAY WORKSHOPS IN MAY & OCTOBER

1st Course Date 15-16/5/01

2nd Course Date 9-10/10/01

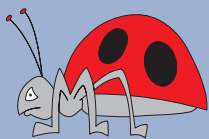
Course Fee £500
(£450 Maintenance Holders)

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

DISCOUNT PRICE FOR
1 DELEGATE TO ATTEND
BOTH THE ARCADY/PICADY
AND OSCADY COURSE £950
(Maintenance Holders £855)

All prices exclude VAT

BUG BOX



See Page 3 for
details on

TRANSYT 11.0
All Releases



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MAAP demo day

TRL recently invited local authorities and police forces to visit the Crowthorne site in early October for a demonstration of the latest version of MAAP. Following a buffet lunch, the visitors were introduced to MAAP through a live demonstration. The demonstration moved through the process of data input and validation, a key feature of MAAP, before moving onto the analysis and map plotting features. The new features of cluster analysis, density analysis, user-site analysis, and the production of stick diagrams proved extremely interesting.

The many original features such as enhanced cross tabulations also brought about a lot of interest with questions from the floor becoming more challenging each time, yet MAAP always provided the answer.

All those who attended were extremely interested in the features of MAAP so much so that all stayed afterwards to have a "play" and acquire further information. For the police forces especially the under development link with the SER world mapping system also proved extremely interesting.

Subsequent to the demonstration we have produced a CD rom video to briefly introduce MAAP. Should you like a copy of this CD rom please contact our software bureau, but please bear in mind this is only a five minute introduction of what is an extremely simple to use but very powerful accident analysis tool. Should you wish to see its true capability contact Peter Phillips Tel: 01344 770692 to arrange a full demonstration at your office.

Peter Phillips
email: pphillips@trl.co.uk

INTRODUCING OUR NEW TRAINING CO-ORDINATOR FOR THE SOFTWARE BUREAU

Dawn Gould joined TRL in 1999 as the Courses Co-ordinator for the International Division, and has added to her portfolio by now taking over the running of our Traffic Software Workshops as well.

Dawn comes to us with 2 years experience as a conferencing manager for DERA Farnborough and a management degree in Manufacturing Systems, so has technical experience as well. We are pleased to have Dawn join us and we welcome her to the team.

Dawn can be contacted by ringing 01344 770399.

Dawn Gould
email: dgould@trl.co.uk

SOFTWARE BUREAU CHRISTMAS HOURS

The Software Bureau will be closed from 4.00pm on Friday December 22nd 2000 and will reopen at 9.00am on Tuesday January the 2nd 2001. Any sales or maintenance queries arising during that time which are faxed or emailed to us, will be dealt with as soon as possible after the Christmas break.

CURRENT PROGRAM VERSIONS

ARCADY 5 V5.0 AA/1.0

Visual PICADY 4 V4.02 AJ/2.1

Visual OSCADY 4 V4.01 AC/2.1
(INTERNATIONAL versions available)

TRANSYT 11 V11.0 AC/1.1

TPM V1.2a

STM V2.0a

BUNDLE V 2.0

MOVACOMM V 2.6.0

MOVASETUP V 2.3

CONTRAM8

MAAP for Windows 4.0

SafeNET 1.02

PARC 2M & PARC 2P

Who's Who in Traffic Software



Andrew Morrison

Andrew joined TRL in September 1997 with a Degree in Applied Physics from the Nottingham Trent University. His work includes the design and development of MAAP for Windows, version 4. Andrew has also been responsible for the installation of MAAP for Windows in Jamaica, Vietnam, Zimbabwe, Uganda and the UK. Installation typically involves the design and construction of road accident databases and the training in accident investigation techniques. Andrew has developed other traffic software and has lectured at the ARCADY workshop.



For further information about TRL software please contact :

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