

# Road Runner...

ISSUE 2, 2004

## So you know where your roads are!!!

*Road Asset Management Systems are the current talk of the town. Many organisations are being required to implement a system to meet reporting or duty of care requirements.*

Recent legislation in Victoria gives Local Government Authorities no option but to put a system in place. Other organisations know that Infrastructure Asset Management is important and are installing or upgrading old systems. Despite all this activity there is still confusion in understanding the difference between an Asset Register and an Asset Management System.

An Asset Register gives you spatial and condition data only. This information can be displayed in a number of formats by aggregating the entries, but provides little if any predic-

tive capability beyond budget matching. Some systems will have modules that produce work orders and record complaints but if it can't help you understand 'What if?' then it is just a register – a very simple first step.

### Good... but now what?

If you have an Asset Management System that can optimise your road asset management and maintenance needs then you are well on the way to understanding and controlling your infrastructure asset requirements. An Asset Management System incorporates an asset register with some form of predictive modelling. Predictive modelling systems are either probability based or formula based. The best systems will incorporate both or allow the operator to build and modify their own models.



Most formula based solutions use deterioration profiles or algorithms developed from field observation over long periods of time and over a number of climatic and construction techniques.

In contrast to Asset Registers these systems allow you to establish thresholds, intervention levels and plan work crews and budgets well into the future with a high degree of certainty or at least improved understanding.

*Continued on page 3*

### INSIDE THIS ISSUE:

**DO YOUR MODELS HAVE THE RIGHT CURVES? . . . 2**



**DON'T FORGET THE DATA . . . . . 2**

**CASE STUDY: THE CITY OF UNLEY . . . . . 2**

**NEW ZEALAND REPORT . . . . . 3**

**ROAD FACTS . . . . . 4**

## The EMS, PMS, WASP... more than just another acronym

*Pavement Management Services and EMS have achieved the imbedding of our road asset management system into the WASP Asset Register function. The product will be marketed as PARMMS Asset Manager, powered by EMS WASP.*

EMS has an extremely rich functionally built from over ten years in the electricity industry. PARMMS has a high adoption rate in Local Government and a proven

track record in commercial contracts. By bringing both together we create a powerful system, which can interface directly into the TechOne Finance System, which is used in a large number of councils. With 30% of LGA expenditure on engineering, the ability to optimise and integrate with other functional areas is an important and necessary step.

EMS details can be found at [www.ems-solutions.com.au](http://www.ems-solutions.com.au) ■

### NEW ZEALAND REPORT

#### What do VicRoads and Palmerston North in New Zealand have in common?

*In our last issue of Road Runner, the Australian division of Pavement Management Services reported on the larg-*

*est ever video and laser survey undertaken in Australia for VicRoads. That same technology is now being successfully implemented for Palmerston North City Council on their first year High Speed RAMM Pavement Condition and Video Survey (900 lane kms).*

*Continued on page 3*



## Do your models have the right curves?

*With the shift in thinking from reactive maintenance to long term maintenance planning with strategic objectives, local and state road authorities are now requiring more accuracy from their performance prediction models within their pavement management system (pms).*

### NOT MEANING TO BOAST BUT ....

Pavement Management Services have long understood the crucial importance of deterioration curves. In our pursuit for greater understanding of pavement behaviour, we pioneered Long Term Pavement Performance Sites (LTPP sites).

As early as the 1980's, Pavement Management Services began establishing LTPP sites in con-

junction with local government authorities around Australia.

Our pioneering partners were Ryde and Randwick in NSW, Fremantle and Canning in WA, Toowoomba and Gladstone in QLD and Adelaide City in SA.

Currently, in alliance with local governments and private enterprise, Pavement Management Services has over 100 LTPP sites across Australia and New Zealand, ranging from the Tropics in Far North Qld, the deserts of Nullabour Plain, the Western Australian coast, temperate east coast of Australia and the cool, moist New Zealand climate.

The data from these sites is continuously reviewed to improve, calibrate and develop new models specific to regions of Australia and incorporated as regional values in Pavement

Management Services award winning PARMMS Road Manager Software. While those councils with established LTPP sites benefit from models specific to their traffic, materials and climate.

Based on a study of these LTPP sites, Pavement Management Services has identified six regions within Australia and New Zealand with specific calibration and environmental conditions.

- East Coast
- Far North Qld
- West Coast/SA Coast
- East Coast Inland Region
- Western Desert
- New Zealand

The continued work on calibrating these models has lead to the development of



models that have the ability to accurately predict future performance with known risks for each of the previously mention regions.

For more information about our models, calibration or the PARMMS Road Manager System please contact our Sydney Head Office on (02) 9674 9488. ■

### DON'T FORGET THE DATA

*Organisations that are seeking to allocate funds to installing an asset management system should allow \$300K. For some this will seem impossible. For others this is essential.*



A

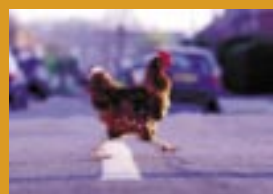
basic break down of the fund is: \$100K for tender preparation and IT engineering consulting, \$100K for software purchases, installation and migration of data and \$100K for data collection to populate the database, assuming an average size network with no prior road condition data collected.

Whilst many will seek a lower cost implementation, a system without data is like a game without players.

With \$5m of road condition assessment equipment, Pavement Management Services can assess your network in the three key areas of safety, serviceability and strength.

For further details, please contact Sydney Head Office on (02) 9674 9488.

Or please contact New Zealand: (07) 847 0499. ■



### CASE STUDY

#### THE CITY OF UNLEY (SA)

Unley has been a long time user of the PARMMS Road Asset Management System. The Engineering Department was also using the J.D Edwards Asset Management System for other classes of assets.

With the acquisition of J.D Edwards by PeopleSoft last year for \$1.8bn there was the question from both Unley and PeopleSoft:

"Can we integrate all the packages."

The answer from Pavement Management Services is a resounding "Yes."

PeopleSoft's EnterpriseOne Asset Management System has a lot of smart technology but where customers have specialist systems they try

and incorporate them into the overall solution.

Following discussions with Unley, PeopleSoft were amazed to find that a number of their sites were using PARMMS Road Manager - often in parallel with EnterpriseOne. Whilst PeopleSoft know nothing about road asset management, the incorporation of PARMMS into EnterpriseOne is a relatively easy task and one that gives increased functionality to an already great product.

There are currently six PeopleSoft Local Government sites using PARMMS Road Manager, with a total of 16 Local Government Authorities using EnterpriseOne.

Everyone can benefit from integration. ■

## What do VicRoads and Palmerston North have in common?

*Continued from page 1*

### THE FACTS

In early 2003 the Palmerston North City Council Roads Group was looking to renew their three year network roughness and RAMM condition survey. Pavement Management Services (NZ) presented an innovative solution which involved Laser Profiling for HSD RAMM data, coupled with a simultaneous RAMM Visual and Video Condition survey. A first of its type for New Zealand.

The proposal included RAMM condition rating for pavement, kerb and channel and footpath defects from video along with the normal roughness, rutting, texture and geometry. This ensured that all condition parameters were referenced to the exact same point with video footage as confirmation. Some of the key advantages of the PMSVideo™ system are:

1. Unique configuration for video frame trigger control. This gives highly efficient video collection where frames are captured based on distance (i.e. per metre) rather than based on time. This also removes

inaccuracy from the distance referencing.

2. Five (5) concurrent video images which can be positioned for most road reserve items such as signs, pavement, surface water channels and footpaths.

3. Onscreen measurement tool for assessing pavement and asset dimensions as well as pavement defect areas.

4. Image resolution of 720 x 480 for forward view and 768 x 586 (wider image) for the pavement view.

5. Improved image sharpness due to improved resolution, progressive scan recording and the Firewire connection to the system computer.

6. Asset Condition Data can be reviewed at the same time as video playback. All videos playback at the same time.

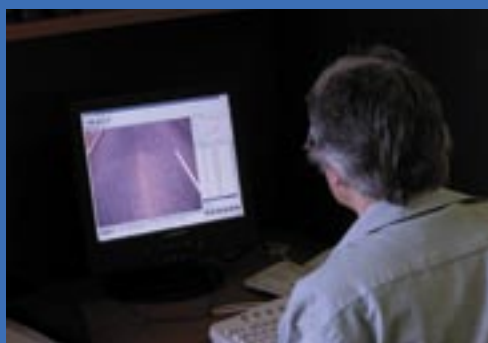
7. Video Survey is integrated with the High Speed Data survey so that referencing of all condition data is accurate. This can also greatly increase the surveying productivity.

8. Pavement and asset condition was rated from the high resolution video footage by accredited RAMM surveyors.

All video and pavement condition data was provided to PNCC on external hard drives and is to be updated regularly.

To further discuss this technology or request a copy of our demonstration CD, please contact Daniel Rich, Pavement Management Services (NZ) on (07) 847 0499.

Australian interested parties can contact NSW Head Office on (02) 9674 9488. ■



## Announcing Richard Johnstone

*Pavement Management Services is pleased to announce that Richard Johnstone has joined our team on a consultancy basis in the area of Software Integration and Development. Richard Johnstone was previously the Director of Strategy and Business Planning - Asia Pacific for Microsoft Great Plains Business Solutions. He brings to Pavement Management Services IT and business development skills that unlock the potential of our road asset management products.*

His primary role is the integration and expansion of our suite of products for general acceptance and use throughout Australia and New Zealand. In addition he is soon to embark on developing contacts and markets internationally.

Anyone wishing to become a Pavement Management Services Business Partner should contact Richard on (0413) 628 889. ■



**Pavement  
Management  
Services®**

*So you know where your roads are!!!  
Continued from page 1*

### DON'T PASS THE BUCK

If currently you can only justify next years budget based on last years or historical spend, then you will always be under pressure to cut. It will be a difficult sell to get the increases you need.

Those organisations with an Asset Management System can present a coherent engineering and scientifically justifiable plan of activity for the next two to five to ten years. The decision to cut road maintenance budgets might still be made, but the risk in doing so will be understood by all concerned parties.

The rate at which your network is deteriorating will not be a surprise for future generations to deal with. Wouldn't it be great to not only know the number of sites and cost of footpath repair this year, but also be able to predict and understand the likely volume and value of footpath repair over the next five years? Better still, wouldn't it be great to do resource leveling and justify and plan work crew activity for the next five years?

*If you run an Asset Register you can report what you have but you cannot truly show what you need.*

Pavement Management Services were told ten years ago that our pavement management system was like a singing dog: 'Everybody thinks it is great but

no-one wants to buy it.' However, with seventy percent (70%) of Australia's road networks currently beyond initial design and construction lives, coupled with a \$5bn backlog in road maintenance, which is increasing at an alarming rate, the use of pavement management systems is now being mandated.

Luckily, we did not listen and put our singing dog through an additional ten years of constant development and now it is the leading act. With over 40 Local Government Authorities currently using our system to great effect we are perfectly placed to help any organisation that is looking at this issue. Please contact us on (02) 9674 9488 to obtain a demonstration CD or organise a presentation. ■



# Do business with an award winning company

## SERVICES WE OFFER

ASSET MANAGEMENT SOFTWARE SOLUTIONS

- GIS INTEGRATION

- FIELD TESTING SERVICES:

VISUAL WITH VIDEO, LASER, STRUCTURAL AND SKID ASSESSMENT

PAVEMENT CORING AND PROFILE LOGGING

WORKS PROGRAMS AND AAS27 REPORTING

- PAVEMENT INVESTIGATION AND DESIGN

CONTRACT MANAGEMENT FOR ROAD REHABILITATION

- PERFORMANCE CERTIFICATION

ENGINEERS AUSTRALIA ENDORSED EDUCATION PROGRAMS

- LEGAL AND FORENSIC ADVICE
- TRAFFIC CONTROL MANAGEMENT

## CONTACT US

PAVEMENT MANAGEMENT SERVICES HAVE OFFICES IN WA, QLD AND VIC WITH THE HEAD OFFICE IN NSW.

FOR ALL ENQUIRIES, PLEASE CONTACT HEAD OFFICE AND YOUR CALL WILL BE DIRECTED TO THE MOST APPROPRIATE PERSON.

HEAD OFFICE NSW:

UNIT 7B, 26 POWERS ROAD, SEVEN HILLS NSW 2147, SYDNEY, AUSTRALIA

PHONE: +61 2 - 9674 9488 • FAX: +61 2 - 9674 9345

NEW ZEALAND

P.O. Box 5465, FRANKTON, HAMILTON, NEW ZEALAND

PHONE: +64 7 - 847 0499 • FAX: +64 7 - 847 0399

[www.pavement.com.au](http://www.pavement.com.au)



## REPORT ON ARF ROADS SUMMIT – 2004

*"The demands of the future are compounded by the accumulated deferral of maintenance works"*

*~ President Australian Road Federation*

The following facts were presented during the recent ARF Road's Summit, which highlights the urgency and the size of our task:

**Freight:** Road freight is expected to double in the next 20 years. It is currently valued at \$34 bn a year. The industry operates 450,000 vehicles and directly employs 200,000 people. With an aging National Highway System there is a growing gap between road standards and road freight expectations.

**Maintenance:** 70% of our road networks are beyond initial design and construction lives. The estimated maintenance backlog is over \$10 bn. The backlog is growing at the rate of \$1 bn per year. The current QMR maintenance backlog is quoted at \$1.5bn. The QMR backlog is expected to jump to \$5bn in the Brisbane area alone within the next five years.

**Congestion:** The populations of Sydney and South East Queensland are each growing by over 50,000 people per year.

**Road Accident Trauma:** For the \$28m spent every day on road maintenance we are still killing on average 5 people per day; injuring another 550 (of which 60 are serious). The cost to the community is over \$15bn a year from road trauma. ■