

# ROAD MEASUREMENT DATA ACQUISITION SYSTEM

# ROMDAS

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## WELCOME

The Road Measurement Data Acquisition System (ROMDAS) is the premiere low-cost data collection system. The range of ROMDAS instruments are shown to the right. A basic system for collecting roughness data starts at around \$USD 6000, while a complete system for roughness, video, rating and rut depth is approximately \$USD 30,000. The modular design of ROMDAS allows users to upgrade over time.

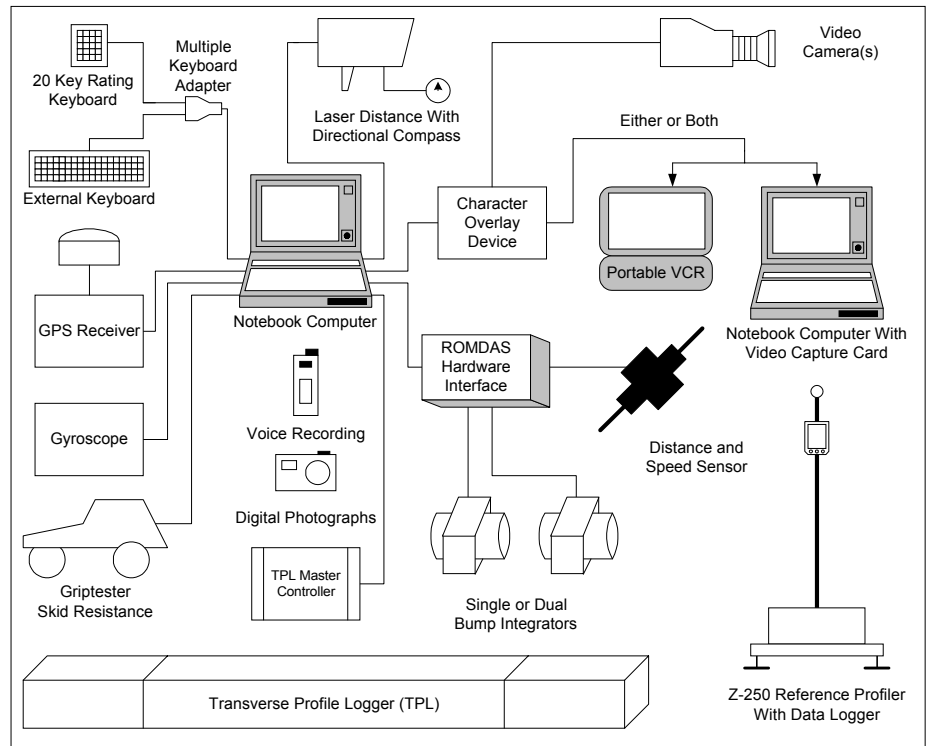
## COMPANY PROFILE

Data Collection Ltd. (DCL) is a company based in New Zealand with offices in Motueka and Auckland. With a permanent staff of 5, we are specialist suppliers of hardware and software for managing roads. Our ROMDAS road measurement system has been supplied to over 40 developed and developing countries.

With strong commitments to research and development, quality assurance and customer support we aim to provide engineers and researchers with innovative technology for measuring and managing roads, which is cost-effective, efficient, reliable, and well supported.

Our vision and focus is:

*"To provide the best technology for measuring and managing roads"*



## PAVEMENT EVALUATION CONFERENCE

DCL will have an exhibit at the 14<sup>th</sup> Annual Road Profile User Group Pavement Evaluation 2002 Conference being held October 21-25, in Roanoke, Virginia.

The DCL stand as well as having many of our existing products on display will also have the first appearance of our Laser profilometer. We will be running the laser on the Virginia DOT 'Smart Road' track.

Dr. Chris Bennett of DCL will also be presenting a paper at the conference entitled "Establishing Reference

Transverse Profiles for Rut Depth Measurements" which describes our new instrument, the **Transverse Profile Beam (TPB)**. This is a reference instrument which establishes very accurate transverse profiles from which pavement deterioration rates can be established and transverse profile loggers (ultrasonic or laser) can be validated. This paper discusses the TPB validation, and use of the data. Copies are available on request.

Conference details are available at [www.conted.vt.edu/pavement.htm](http://www.conted.vt.edu/pavement.htm)

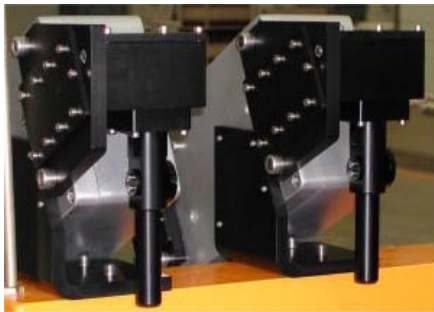
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## ROMDAS LASER PROFILOMETER

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The development work on the ROMDAS laser profilometer continues. In early October we will do our field validation runs using Transit New Zealand's standard validation sites. The data will be independently compared to the roughness from our ARRB walking profiler and Z-250 by Opus Central Laboratories.

Using 16MHz high quality lasers with digital ethernet connectivity for high speed efficient data transfer rates the laser profilometer has an accuracy of +/- 0.1 mm.



Operating via our ROMDAS for Windows software, the profilometer will be integrated with all other ROMDAS instruments.

Pricing is still being finalised but we are confident that it will be the lowest price profilometer available on the market by several orders of magnitude.

Full release of the profilometer will be in November.

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## ROMDAS PRODUCT UPDATES

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We aim to continually improve our products in conjunction with responding to customer suggestions. To this end the latest enhancements to our existing products are as follows:

- **ROMDAS for Windows:** ROMDAS for Windows (ROM-WIN) is now in the final beta stages. Release 1 focuses on

roughness, LRP, keycode, GPS and video surveys. TPL surveys will be incorporated in Release 2.

- **Transverse Profile Beam (TPB v3).** A new beam has been designed for the second year of the Transit New Zealand long term pavement performance site survey. This design has a number of enhancements but mainly is much lighter and yet more rigid than the previous version. The TPB software is also under revision.
- **Z250 Reference Profiler:** The Z250 profiler is currently undergoing further software enhancements to increase its ease of use and robustness during data collection. We will be further validating the Z250 in conjunction with the Laser Profilometer later this month
- **GPS Surveys:** We are evaluating a GPS receiver connected to the StarFire™ Network. This network gives one set of highly accurate (0.1 m) real-time positions across the globe. We will be comparing against our current range of receivers and will have results of performance and comparisons available on the ROMDAS web site in the near future.

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## R&D PROGRAMME

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Once our profilometer development is completed we will be working on two new instruments which we expect to release early in 2003:

- **Dust Meter:** This will measure the dust levels on unsealed roads using optical principles.
- **Street Light Illumination:** This will enable the illumination levels of street lights to be measured and their locations established using the distance and GPS co-ordinates.

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## HDM-4 INFORMATION MANAGEMENT SYSTEM

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The HDM-4 Information Management System (HIMS) has been successfully installed at the Samoa Public Works Dept in August 2002. Dr Chris Bennett undertook the installation and staff training. The next major installation will be in Cambodia in November.

The HIMS is a powerful relational database system used for managing road, bridge, traffic and almost any other type data. It is the lowest cost application of its type available.

Details on the HIMS and the user's guide can be downloaded from [www.hdm-ims.com](http://www.hdm-ims.com).

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## CYCLING THE GREAT DIVIDE

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Dr. Chris Bennett, the owner of DCL, is currently cycling "The Great Divide" Mountain Bike Route. This is the world's longest mapped off-pavement cycling route. The Great Divide extends for 2,470 miles (4,000 km), from the Canadian border to Mexico with about 50 mountain crossings. Chris is maintaining a journal of his travels which can be viewed at [www.ROMDAS.com/chris](http://www.ROMDAS.com/chris).

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## FURTHER INFORMATION

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A free comprehensive CD is available with software, catalogue, manuals, working papers, etc. To receive a copy please contact us at:

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