



# ROMDAS

# Transverse Profiler Logger



# ROMDAS System Overview

ROMDAS® (ROad Measurement Data Acquisition System) has been developed by Data Collection Ltd. (DCL) as a comprehensive, cost effective and modular system for collecting asset and pavement information. Implemented in over 60 countries, it's flexible design allows for installation on locally sourced vehicles and meets widely accepted international standards.

Depending on your needs, a ROMDAS system can be easily customized with a variety of add-on modules to suit the specifications and budget of any project.

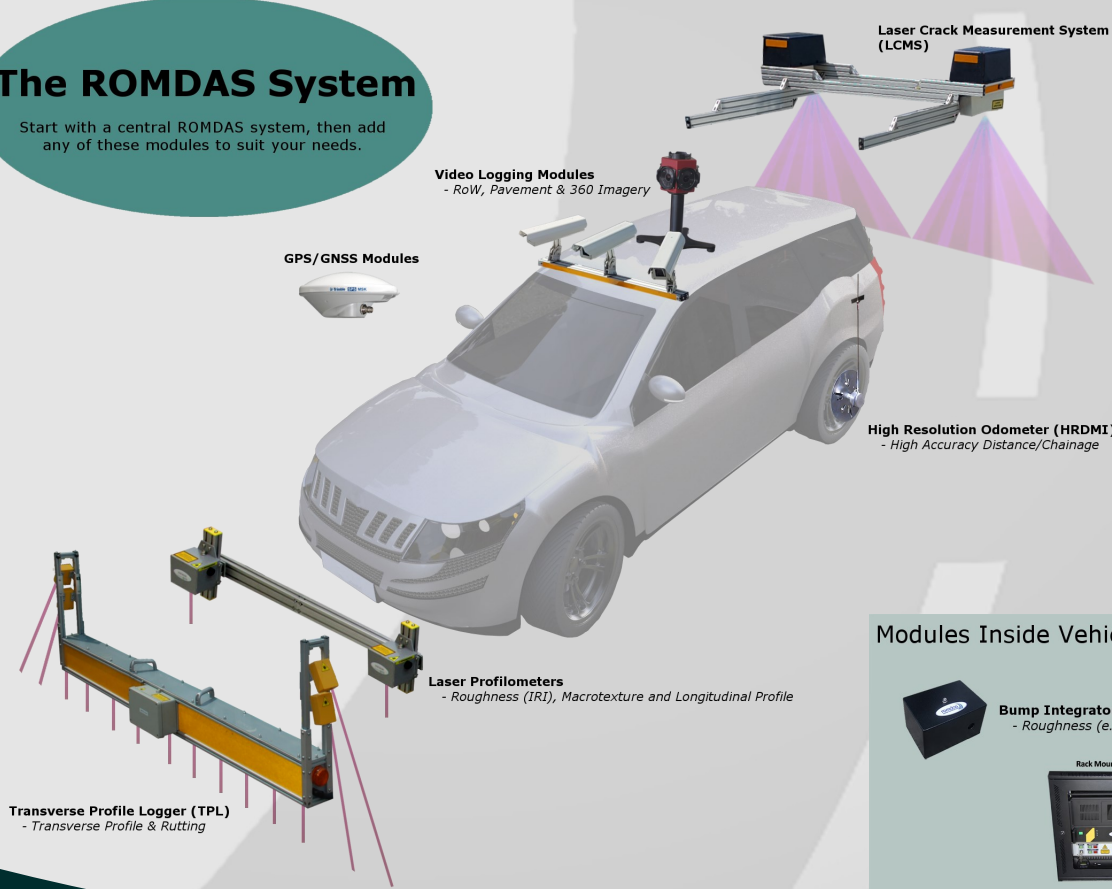
Whether a private consultant, government department or research institution, ROMDAS offers great reliability, flexibility and ease of use for anyone who needs to quickly and accurately collect asset data.

## ROMDAS CAN BE USED FOR...

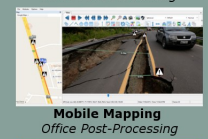
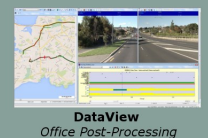
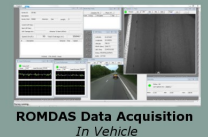
- ✓ High-speed network level or project specific road surveying
- ✓ Road roughness surveys
- ✓ Transverse profile/rutting surveys,
- ✓ Macro-texture (MPD)
- ✓ Visual condition, environment or event rating
- ✓ Automatic crack and surface defect inspections
- ✓ Location referencing (spatial GPS/GNSS data or linear LRP data)
- ✓ GIS mapping of condition data and road alignment
- ✓ Video logging surveys (right of way, 360 and pavement view)
- ✓ Mobile mapping of roadside assets & inventory
- ✓ Road geometry surveying
- ✓ Travel time and congestion surveys
- ✓ iRAP road safety surveys

## The ROMDAS System

Start with a central ROMDAS system, then add any of these modules to suit your needs.



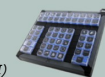
## Software Solutions



## Modules Inside Vehicle



**Bump Integrators**  
- Roughness (e.g. IRI)



**Event Rating Keyboards**



**Survey Computers**



ROMDAS Module:

# Transverse Profile Logger (TPL)

## SPECIAL POINTS OF INTEREST:

- Collect transverse profiles and automatically calculate wheel path rutting over a whole network
- No need for expensive traffic management when surveying at traffic speeds
- 15-point or 9-point laser option available
- Competitive price
- Expand with additional ROMDAS modules to collect other pavement or asset data in a single run, e.g. Laser Profilers for roughness (IRI) and macro-texture
- Proven in tough conditions
- Easily serviceable
- No expensive annual factory calibration required

The ROMDAS TPL ver.3 is an add-on module to a central ROMDAS system. It measures transverse road profiles and calculates the rut/depression depth (mm). It can be operated in conjunction with other ROMDAS modules to collect a wide variety of condition and asset data simultaneously.

This vehicle mounted unit can operate from 0 - 120 km/h. This makes it extremely practical for large scale surveys as it requires no traffic management. Utilising a high-speed device like the TPLv3 can significantly increase productivity. Unlike manual site measurements, the TPLv3 can be deployed to survey 100% of a network which leads to more reliable analysis and decision making.

The TPL v3 is equipped with precision laser sensors to give you transverse profile. 9-point laser sensor and a full 15-point laser sensors. The laser sensors are positioned to offer the height accuracy of laser based equipment and also maintains much of its robustness and cost-effective price.

The TPL v3 is available in two options with 15-point laser sensors and with 9-point laser sensors, with the 15-point laser TPL providing higher accuracy transverse profile. If requested, the number of sensors can be customized to suit the specifications of a project or available budget.

## APPLICATIONS:

- Small and large scale network surveys
- Post-construction quality surveys
- Routine condition surveying for maintenance planning



ROMDAS Module:

# Transverse Profile Logger (TPL)

## INSTALLATION & MAINTENANCE

The TPL does not require a specialized vehicle and can be installed on most locally available vehicles with only minor fabrication. Once installed the main TPL unit is easily removed for secure storage.

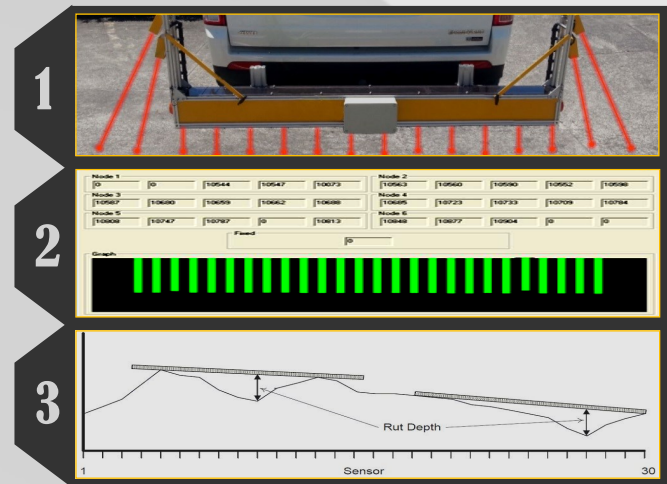
The TPL does not need to be shipped to DCL for annual calibration. Instead a simple onsite calibration is performed to ensure the accuracy and reliability of data.

## COMPONENTS

- TPL v3 unit
- Power and communication cables
- Reference straight-edge
- Mounting beams

## OPERATIONAL PRINCIPLE

The TPL is user friendly and requires little to no input during surveys. The user defines an interval to collect transverse profiles (e.g. 1 profile per metre). These raw profiles are then analysed to calculate rut depths using a simulated 2 m straight edge method.



## Specifications

Applicable standards	ASTM 1703
Sensor type	Laser
Number of sensors (contact points)	15 or 9 (custom configurations available on request)
Sensor Spacing	250
Sensor resolution	0.05mm
Mounting height	300mm
Range	+/-250mm
File Format	Generic MS Access databases (.mdb)
Environmental	IP67
Weight	25 kg
Profile width	3.5 m
Unit width	2.2 m

