

Application Note Recording data of mobile processing plant – Road Surfacing

Customer Requirements Matthews Bros Bitumen Spray Truck, for Roadways Pty Ltd, Tasmania required specific information regarding the truck and bitumen spray assembly during periods when bitumen is being sprayed onto roads to demonstrate the quality and efficiency of the process.

Equipment

DT50
4 MB Memory Card x 2
DeLogger™ 4
DeTransfer™

Sensors

Air temperature sensor
Bitumen temperature sensor
Spray bar pressure sensor
Bitumen pump RPM
Engine RPM sensor
Road speed sensor



Datataker Solution

The *dataTaker DT50* was powered directly from the truck's 24VDC battery. The sensors listed are installed around the truck and are connected to the data logger.

The logging of data from the sensors is controlled by the SPRAY ON and SPRAY OFF push buttons on the drivers panel beside the steering wheel. This provides a safe voltage free contact closure input to the data logger, which is normally closed. Pressing the SPRAY ON button activates the data logging relay and opens the contacts. Pressing the SPRAY OFF button de-activates the data logging relay and closes the contacts.

The Run Number counter is reset to zero each midnight, so that the first run each day is Run Number 1.

Elapsed Spray Time – this counter is set to zero when the SPRAY ON button is pressed, and is incremented each second during a spray run. The Elapsed Spray Time is logged each second along with the sensor data for that second.

Data can be viewed in real time during spray runs if desired, by connecting a computer running DeTransfer (supplied on the Resources CD supplied with the data logger) to the data logger's RS232 Comms connector. Viewing data in this way does not disrupt saving

If you need more detail on this application please contact joyce.reid@datataker.com.au

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the data to the memory card as well. Also the data can be downloaded as a CSV file using DeLogger, allowing further analysis in Microsoft Excel.

Currently this project is ongoing and there is a likelihood of this system being replicated throughout the fleet. For more specific details please see part B.

Other application users

Mobile cranes

Drilling Rigs

Agriculture spraying equipment

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