

## STREAMLINING ENDURANCE TESTS WITH STANDALONE CONTROL SYSTEMS

### DELPHIN PROFIMESSAGE MONITORS & SENDS ALERTS DURING TESTING



The goal of product [endurance testing](#) is to subject manufactured products to real-world stress and ultimately to achieve service life certification. In these long-term applications, engineers require both data acquisition and control capabilities.

The [Delphin ProfiMessage](#) devices are ideal for multi-channel test applications, providing stand-alone operation managed by an on-

board processor, and up to 16 GB of memory for data storage. These systems feature data acquisition and control functions, network connectivity, support for standard communications protocols such as Modbus, CAN, and Profibus, and the capability to expand to over 100 analog and digital I/O channels.

### DATA SECURITY AND MONITORING

Delphin devices can continuously stream data to a PC and also record to internal memory, providing users with redundant data recording. This is especially useful for ensuring that there are no data gaps in lengthy testing applications in the event of a communications interruption or computer restart/failure.

Test failures can be immediately reported via email or via digital outputs for a local alarm. An integrated scheduler within the Delphin DataService software enables

periodic data archiving to a backup device. Users can use Delphin's ProfiSignal Software to configure measurements, monitor live data, create automated tests sequences, and evaluate historical data.

## PRODUCT TEST APPLICATION FEATURES:

- **Measurement, automation, and analysis functions** in a single device
- **Multiple test stands** can be operated independently of one another
- **Standalone** operation independent of a PC
- **Data security** through redundant storage and automated backup
- **Email/test message notification** upon product test failures

## CUSTOMER EXAMPLE:

A major automotive supplier develops, tests, and produces a variety of fans and cooling systems. To guarantee the service life of these products, test engineers carry out complex endurance tests. First, the test samples are installed into climate chambers where they are then subjected to simulated daily and yearly cycles.

Their application relies on Delphin ProfiMessage devices that function completely independently and also send email message alerts in the event of a sudden malfunction. More than 70 climate chambers are operated in parallel, and endurance testing of 2000 to 3000 hours is required. In addition to data acquisition and monitoring, the Delphin Message devices also manage multipoint temperature profiles for the test chambers.

All data is transmitted online and automatically saved to a server. Despite the huge volume of data, [ProfiSignal](#) is able to display data for the complete test period so that



unexpected events or outliers are immediately identifiable.

## OTHER TYPICAL ENDURANCE TEST APPLICATIONS

- Environmental simulation for vehicle cooling systems
- Endurance testing of oven door opening and closing
- Service life testing for electric window mechanisms
- Service life testing for fan motors
- Electric burner and hot plate testing
- Long-term stability measurements for solar modules

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For more information on [Delphin ProfiMessage](#) systems, or to find the ideal solution for your application-specific needs, contact a CAS DataLogger Application Specialist at **(800) 956-4437** or [www.DataLoggerInc.com](http://www.DataLoggerInc.com).