

#### making sense with sensors

# Data Acquisition Overview

We offer a wide range of data acquisition equipment which can be used in many applications across the OEM and Test & Measurement environments. Our systems provide compatibility with the vast majority of sensors on the market. From simple hand-held single channel loggers to mixed input 2MS/s 24 bit resolution 2000 channel wifi connected systems, StrainSense has a solution to suit your application.



- 2000+ channel capability
- Up to 2MS/s sampling rate per channel
- Up to 24 bit resolution
- Up to 2TB storage capacity
- Compatibility with a vast range of measurement sources
- Mixed input capability
- Synchronisation of disparate data sources
- Measurement capability
- Voltage
- Current
- Resistance
- PE
- IEPE
- Frequency
- Count
- Bridge
- Digital
- CAN
- RS232/RS485
- Flexray
- High precision GPS
- Temperature
- Audio
- TEDS
- ARINC 429
- MIL 1553
- Ethernet
- Hi-speed video

- CAN and Flexray integration
- Audio and Hi-speed video capability
- Hi-accuracy GPS availability
- Mains or battery powered
- Ethernet and Wifi connectivity
- Distributed systems capability
- Data analysis and processing
- Wide range of data format exportation

Our combination of sensor and data acquisition expertise means that if you have a technical challenge then we have the capability to provide you with a solution. Our comprehensive range of sensing technologies and our ability to provide customised installations, combined with our wide range of data acquisition equipment providing the capability to log a vast range of diverse data sources means we are up to the challenge.

Advance software is regularly updated to add new capabilities to the measuring systems applications based on robust hardware to offer future-proof systems for advance engineering solutions.

For data post processing our software provides a number of Industry specific toolboxes along with fully customisable data manipulation, statistics, mathematical transformation, graphing and reporting. Whether you are drilling for oil in the North Sea or transporting commuters on the London Underground, developing the latest fighter aircraft or luxury off-road vehicles, StrainSense have systems for you.

Acceleration | Force | Position | Pressure | Strain | Tilt | Torque | Vibration | Data Acquisition www.strainsense.co.uk



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## **Industry Applications**

## Automotive

- Advanced Driver Assistance Systems test and development
- Engine Dynamometer data capture
- Functional Safety testing
- Road Load Data capture and analysis
- Ride & handling development
- Structural test
- Transmission test and development
- Electric and hybrid vehicle systems test and development
- Noise and Vibration Harshness testing

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## MIL/Aerospace

- Flight test
- On-board power systems test
- Structural test
- Aero engine harmonic analysis
- Military vehicle test and development
- Ballistics testing
- Submarine system test and development
- Drone test and development



#### Power

- High voltage testing
- High current testing
- Power fault recording
- IEC 61000 conformity
- EN50160 testing
- Electric machine testing
- Network harmonic analysis
- Multi-phase test and measurement
- Power quality testing
- Power factor correction measurement
- UPS conformity testing



#### Rail

- Power quality monitoring
- Pantograph testing
- Current shoe testing
- Brake system test and development
- Suspension test and development
- Structural test

# Data Acquisition Overview



## Oil and Gas

- Exploration and decommissioning
- Power quality monitoring
- Plant monitoring
- Plant monitoring
- System safety testing
- Electric machine testing
- Drilling system development



## Industrial

- Power quality monitoring
- Manufacturing system development
- Plant monitoring
- Plant monitoring
- System safety testing
- Electric machine testing

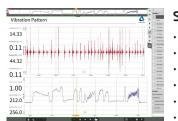


#### **Applications** - Test and development for:

- Components
- Systems
- Structures
- Software
- Hardware

#### Reasons

- Safety
- Integrity
- Validation
- Verification
- Quality



## Software

- National Instruments Labview drivers available
- DASYLab drivers available
- Dewesoft data acquisition
- Marlin power monitoring software
- Flexpro data analysis and presentation software
- 'Oxygen' data acquisition and analysis software
- Nitrogen open system for user software development
- Vibration order tracking analysis
- Shock Response Spectra
- Torsional and Rotational analysis
- Modal/ODS
- Sound level meter
- PMT report generator



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# Data Acquisition Overview



# Data Acquisition Suppliers Dewetron

- High channel count mixed input systems
- Bench mounted mainframes
- Rack mounted mainframes
- Fully integrated standalone systems
- Rugged systems
- USB & Ethernet connected systems
- Signal conditioning units
- Distributed systems via Wifi or Ethernet
- IRIG or GPS Synchronised systems
- Portable systems with battery power
- Large range of inputs available
- Full integration to audio and hi-speed video
- Upto 2TB Storage
- Intuitive software
- Large range of data analysis options

## Graphtec

- Economically priced
- High channel counts possible
- Wide range of inputs available
- Mains and/or battery powered
- Desktop mounted
- Easy to configure
  - Wifi and Ethernet connectivity



#### ESA

- Economically priced
- Compact
- Expandible
- Simple to use
- Portable

#### PICO

- Compact
- Simple to use
- PC based software
- Desktop mounted

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All your sensor and data acquisition needs can be met from one source, StrainSense!