ASC Acoustic Emission Systems

Richter[16]

The Richter[16] is a 16-bit continuous data acquisition and streaming system. The acquired data is streamed directly to the system's hard disk array which enables several hours of continuous data to be stored.

- The unit can be operated in continuous or triggered acquisition mode.
- Each Richter unit can simultaneously sample (up to 10 MS/s) on 4 channels and multiple units can be synchronised together (master-slave setup) to provide an expanded system with a larger number of channels.
- Integrated with ASC's data acquisition (and hardware control) software, the PC-based Richter system provides a complete data acquisition solution.

Milne[16]

The Milne[16] is a multi-functional, multi-channel 16-bit data acquisition system, with simultaneous and synchronous sampling on all input channels. The acquired data is stored on the system's hard disk array.

- Three different versions of the instrument are available with sampling rates of up to 10 MS/s, 20 MS/s or 40 MS/s respectively.
- The unit is primarily operated in a triggered acquisition mode, with the captured waveforms and triggered events stored on the data acquisition system's hard drive array.
- Multiple 4-channel data acquisition cards can be synchronised (master-slave setup) to provide an expandable system with up to a total of 32 channels.

Cecchi

The Cecchi is a low-cost USB high-frequency data-acquisition unit for ultrasonic, acoustic emission and microseismic monitoring with simultaneous and synchronous sampling on all input channels.

- The Cecchi provides 50 MHz, 12 bit full-waveform acquisition with 128 kilo-samples per channel.
- The unit is primarily operated in a triggered acquisition mode, with the acquired triggered events stored on the data acquisition PC to which it is attached, using the USB interface.
- Multiple 4-channel Cecchi can be synchronised (master-slave setup) to provide an expandable system with a large number of channels.

APPLICATIONS

Microseismic (MS) and acoustic emission (AE) event monitoring.
Vibration monitoring.
Research- and laboratory-based high-speed data acquisition.
General applications requiring high trigger rates and multi-channel triggering.
Microseismic clouds.

PREMIUM SERVICE

Our Premium Service Plan combines consulting and training in addition to our conventional technical support. PSP can be used for direct one-on-one training and/or assistance in setting up your project. You are in control.

For more information on any of our products or services please visit us on the web at:

appliedseismology.co.uk

Sensor Interface Instrumentation

Trigger Hit Count Unit (THC)

An expandable multi-channel (up to 36 channels) system which provides the trigger and hit count logic during acoustic emission (AE) monitoring and testing. The hit-count analysis provides the number of threshold crossings counted per channel over a specified period. These user specified parameters are setup and controlled within InSite-Lab's data acquisition software modules. The unit is software controlled over the PC USB interface.

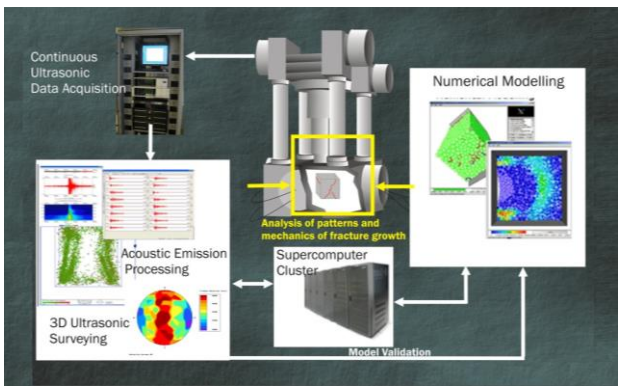
Pulser Amplifier System (PAS)

An expandable multi-channel (up to 36 channels) system that consists of the Pulser Amplifier Desktop units (PADs) and Pulser Interface Unit (PIU). The PAS provides pre-amplification and switching between pulsing and receiving mode for all transducers in a multi-sensor array during an ultrasonic survey.

Each PAD has selectable gains between 30 and 70 dB, and a broad frequency response with a plug-in filter circuit to tailor the unit to the desired frequency range. The unit is software controlled over the PC USB interface.

Acoustic and Ultrasonic monitoring of fracture deformation

- Our laboratory systems are being used to perform rock and concrete testing research in leading Universities and institutions worldwide, including in the United Kingdom, Australia, Canada, Finland, France, Germany, Italy, Russia, Norway, China and the United States.
- Record and process acoustic emission and 3D ultrasonic data from fracture and deformation experiments.
- Investigate patterns and mechanics of fracture growth.
- Optimise data quality with tailored high- frequency acquisition systems.
- Integrate user algorithms with advanced software for optimising research programs.
- Record and process continuous ultrasonic data streams for entire fracture history.



ABOUT INSITE-LAB

InSite-Lab™ is an integrated data acquisition, processing, management and visualisation software developed for acoustic emission and ultrasonic emission applications.

InSite-Lab™ provides tools for importing, processing and visualising data with a high-level of automation, making processing and reprocessing a simple workflow. The package contains advanced interpretation tools to aid your analysis.

Our software Annual Maintenance Program includes technical support, service updates, new tools, and full-version upgrades.

For more information on any of our products or services please visit us on the web at:

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