

Matrix Borehole Logging System



The MATRIX provides a solution to the multiplication of telemetry standards seen in the logging tool industry over the last decade.

The MATRIX offers a unique combination of versatility, ruggedness and ease of use. It can be easily transported, set up and run by a single operator. Since its introduction in 2006, the system has become the standard solution for a diverse range of applications meeting the requirements of the Mineral Exploration, Groundwater and Geotech industry.

- Uses latest Digital Signal Processor (DSP) technology directly linked to the wireline through a pair of ultra fast high-resolution A/D and D/A converters.
- Supports all ALT & Mount Sopris tools, most analog tools and a wide range of 3rd party tools.
- Telemetry automatically adjusts for operation on most common wireline lengths and configurations.
- Settings totally software controlled (incl. depth encoder and tension gauge).
- Real time data display and printing using MATRIX software. Windows printer support, ALT and LAS data output.
- Support of sophisticated software tools such as digital scope, spectrum analysis and histograms for signal tuning. Access to configuration database.
- Lightweight portable solution.

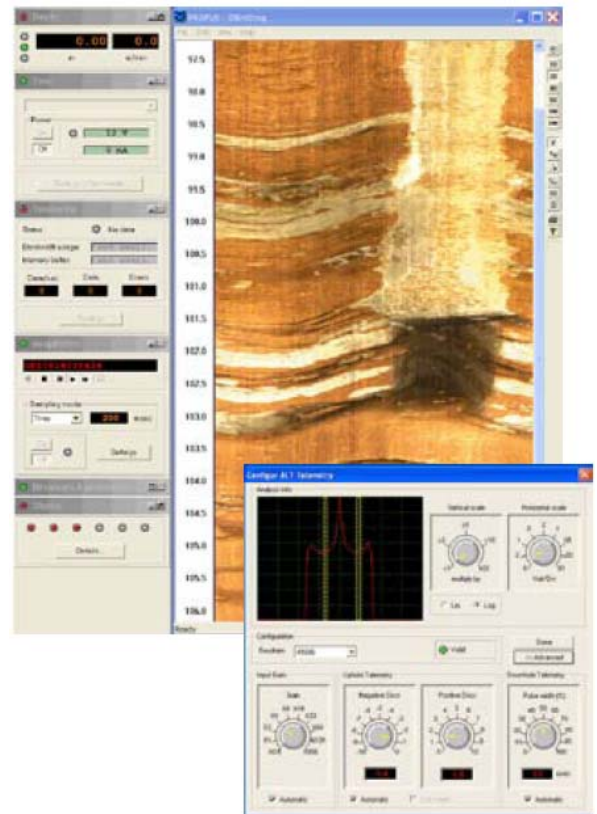
Matrix Technical Specifications

- Dimension (W x L x H) 20 x 33 x 10 cm (8 x 13 x 4 in)
- Weight 5 kg
- Input Voltage 90 – 240 VAC, 50 – 60 Hz inverter compatible
- Tool Power Up to 200 V / 300 mA
- Cable Connectors 18 Pin Mil-C-26482 (single connector for depth, tension and wireline)
- PC Connection High speed USB
- Operating System Windows 2000, NT4, XP, VISTA
- Logging Cable Standard single, four, seven conductor and coax
- Logging Speed e.g. ABI 40 @ 3mm, 144 pts/trn : 2.5 m/min
- Tools / Telemetry ALT, MSI, Geovista, Robertson V106, Century, analog tools (up to 4 pulse channels)
- Upgradeability User upgradable firmware
- Software Matrix Software

Software

The heart of the graphical user interface is the Dashboard which consists of multiple threads running concurrently and handling specific system tasks simultaneously. The dashboard is the operator's control panel to select and control all system functions and to monitor the data acquisition process and tool status. The Dashboard provides access to the following windows:

- Depth control
- Tool configuration and power control
- Telemetry control
- Data sampling and replay control
- Self diagnostic system status
- Tension gauge system
- Data browser and processor windows control



Browser windows are used for real time data monitoring and offer a wide choice of on-line display facilities to present log data on screen in an attractive layout. Depending on the tool category, different browser windows are used to display log data such as conventional curves, full wave form sonic traces, acoustical and optical borehole images. Latest developments of the software will allow a real time connection to the WellCAD v4.2 or higher data processing platform enabling the user to apply templates, compare currently logged data with reference / repeat data or run processes. QA / QC tasks, data preprocessing and field interpretation can be executed on incoming data.