WIGGLEVIEW"

WIGGLEVIEW from Lexidata[™] is a specialized computer graphics firmware package that has been developed exclusively for the rapid display of vast amounts of seismic trace data.

Available as a firmware option on selected Lexidata LEX 90[™] raster graphics display processors, WIGGLEVIEW provides the geophysicist and processing analyst with high-performance interactive graphics capabilities. With WIGGLEVIEW, seismic sample data can be sent directly to the LEX 90 graphics processor for fast display of wiggle traces, variable area fills, variable density plots, and horizon flattening. The result is a flexible, cost-effective graphics system that relieves the host computer of the burden of calculating display pixel values.

Firmware = Speed Because WIGGLEVIEW's specific graphics commands are embedded in firmware, the result is unrivaled speed. Full screen display plots are now achieved 5 to 10 times faster than conventional host-bound methods. In addition, a full screen display of 250 traces-worth of Variable Area Wiggle peaks and troughs can be filled in four seconds. For flexibility, WIGGLEVIEW has also been designed to coexist with other Lexidata firmware, such as the powerful Extended Graphics Operating System (EGOS), and Lexidata's patented SOLIDVIEW® 3-D solid modeling display technology.



These high-resolution seismic images were quickly displayed using Lexidata's WiGGLEVIEW firmware and a LEX 90 graphics display system running Earth Technology Consultants' ONDO-GRAPHICS™ software package.

Variable density display with wiggle trace overlays.



EGOS contains all the graphics primitives such as arcs, circles, vectors, and polygon fill modes, and also provides 2-D graphics, pixel manipulation, and hardware control functionality. SOLIDVIEW is a set of commands specifically designed for the display of solid surfaces. SOLIDVIEW performs hidden surface removal and visible surface shading in the display processor and displays the construction of objects incrementally, with no sorting of primitives required in advance.

Functions By combining high resolution (1280x1024, 60 Hz) graphics with high-speed processing capabilities, WIGGLEVIEW allows seismic sample data to be displayed quickly and effectively. WIGGLEVIEW has been designed to enhance related application software by performing the following drawing techniques:

- Wiggle Trace Display
- Variable Area Display
- Variable Density Display
- Horizon Flattening

With WIGGLEVIEW, all processing and display parameters are under the geophysicist's complete control. The type of plot, type of data, gain, color, trace and sample spacing, and trace direction are all available to be modified as desired.

High-Performance

Processor The powerful combination of WIGGLEVIEW firmware and the high-performance Lexidata LEX 90 display processor eliminates the bottleneck that's typically associated with the processing and displaying of seismic trace and sample data. LEX 90 performs all primitive generation and pixel processing, accepts high-level commands from the host computer, performs pixel operations, and controls the color and content of what is displayed on the system monitor.



Variable area display with peaks filled. With WIGGLEVIEW, all processing and display parameters are under the geophysicist's complete control.

The display processor operates at writing speeds of up to 57 million pixels-persecond (in block mode). When not writing in blocks, the LEX 90 writes vectors at 600 nanoseconds per pixel. These high speeds are critical for quick response when displaying WIGGLEVIEW plots, complicated contour maps, well log data, or other graphical data. The display processor performs a variety of different operations including 2-D vectors and 3-D shaded polygons.

GLEXIDATA

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