



# Electric Sensor Trainer System

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## EST<sup>©</sup> Mk II

**A complete training aid for learning UEP/ELFE**



**Proven equipment from an experienced supplier**

## The EST<sup>®</sup> System

The Electric Sensor Trainer System EST<sup>®</sup> is aimed to be used as a training tool for schools or organizations having a need to learn more and teaching about Underwater Electric Signatures, for basin use or at sea. The Electric Sensor Trainer System EST<sup>®</sup> consists of a 3-axis UEP/ELFE-sensor attached to small sea bed foundation, the Land Unit and the EST<sup>®</sup> software CD. An attached sea cable connects the electric sensors with the EST<sup>®</sup> Land Module. The EST<sup>®</sup> Land Module is being attached to a PC via a Ethernet cable to the Ethernet port on the PC where the analysis of the measured electric signature is being made using the EST<sup>®</sup> software. The EST<sup>®</sup> system can be delivered with or without the PC. The Land Module is being supplied through an AC power adapter from 127/230VAC and 48VDC.

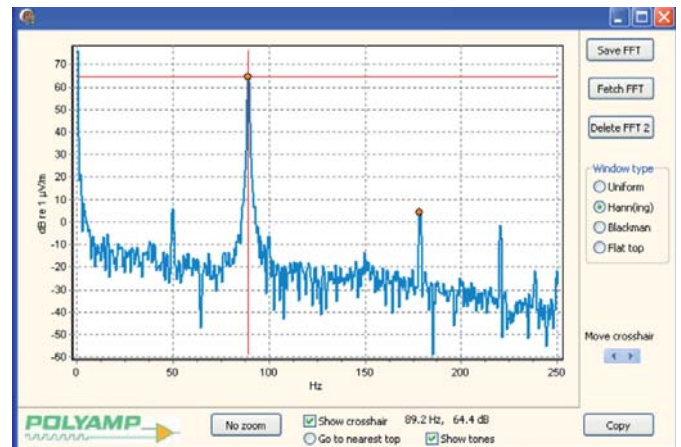
## The EST<sup>®</sup> Software

The software provided with the EST<sup>®</sup> hardware offers several functions. During measurement the signature data is collected and stored on operator demands for start/stop and real time data viewing of signal. The operator has options for naming data files and to control the data flow to a file where data is stored for post analysis. While the data acquisition is running there is a raw data display function that shows a low pass filtered graph on the computer screen enabling the operator a continuous status update of the signal levels.

As a post analysis there are functions for time line curve display at different low pass filter settings. This function is used for finding signature peaks related to sections of the target vessel or a specific time window. Also as a post analysis a spectral analysis (FFT) can be made for selected sections of the stored data. Different FFT windows can be selected and tones and harmonics can be highlighted with this function. Everything that is displayed can be stored as graphic pictures that can be used for reports and presentations.



EST real time data viewer



FFT spectral analysis

## The EST<sup>®</sup> General Specification

3-axis Carbon Fibre sensor	AC range (typically 5mHz to 3000Hz)
Equivalent Input Noise	Typically 10nV / m root Hz @ 1Hz
Sensor spacing & orthogonality inaccuracy	Equivalent spacing 250mm & typical within 1°
Sea Cable lenght	Standard 10 meters, optional 300 meter
Digitalization	3 channels each 24 Bits
Suitable minimum PC for running EST software	Pentium 2GHz, WinX, 2Gb RAM, 40MB HD, Ethernet

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