

## UMS Research tank

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UMS Research tank is an entry-level scanning system that offers a way to automate many of the repetitive tasks of acquisition, display, storage and processing of data associated with the measurement and mapping of acoustic fields in a cost effective way.

Ultrasound measurements rely on the ability to accurately measure the acoustic field. To facilitate this, UMS Research tank incorporates the ability to conduct:

- computer controlled movement of two linear axes and data acquisition
- coarse manual positioning of the third linear axis
- beam profiling and planar scanning with real-time display in the two motorised axes

## TYPICAL SYSTEM SPECIFICATION

Water tank dimensions	0.6 m (L) x 0.4 m (W) x 0.4 m (H)
Linear motion range	0.15 x 0.15 m
Ideal frequency range	0.5 MHz – 20 MHz
Number of motorised axes	2 Linear axes (can be user-reconfigured to any choice of XY, YZ or XZ,)
Position encoding	None
Linear resolution*	2.5 µm
Working speed	10 mm/s
Working load	Up to 1 kg
Data acquisition	Via modern digital oscilloscope (can be supplied if needed)
System software	USB Key Supplied with UMS3 Software Installer. UMS3 handles hardware synchronisation required for scanning, acquisition of data and post processing.

\*Calculated from manufacturer specification of linear axes leadscrew pitch in combination with smallest motor step size.

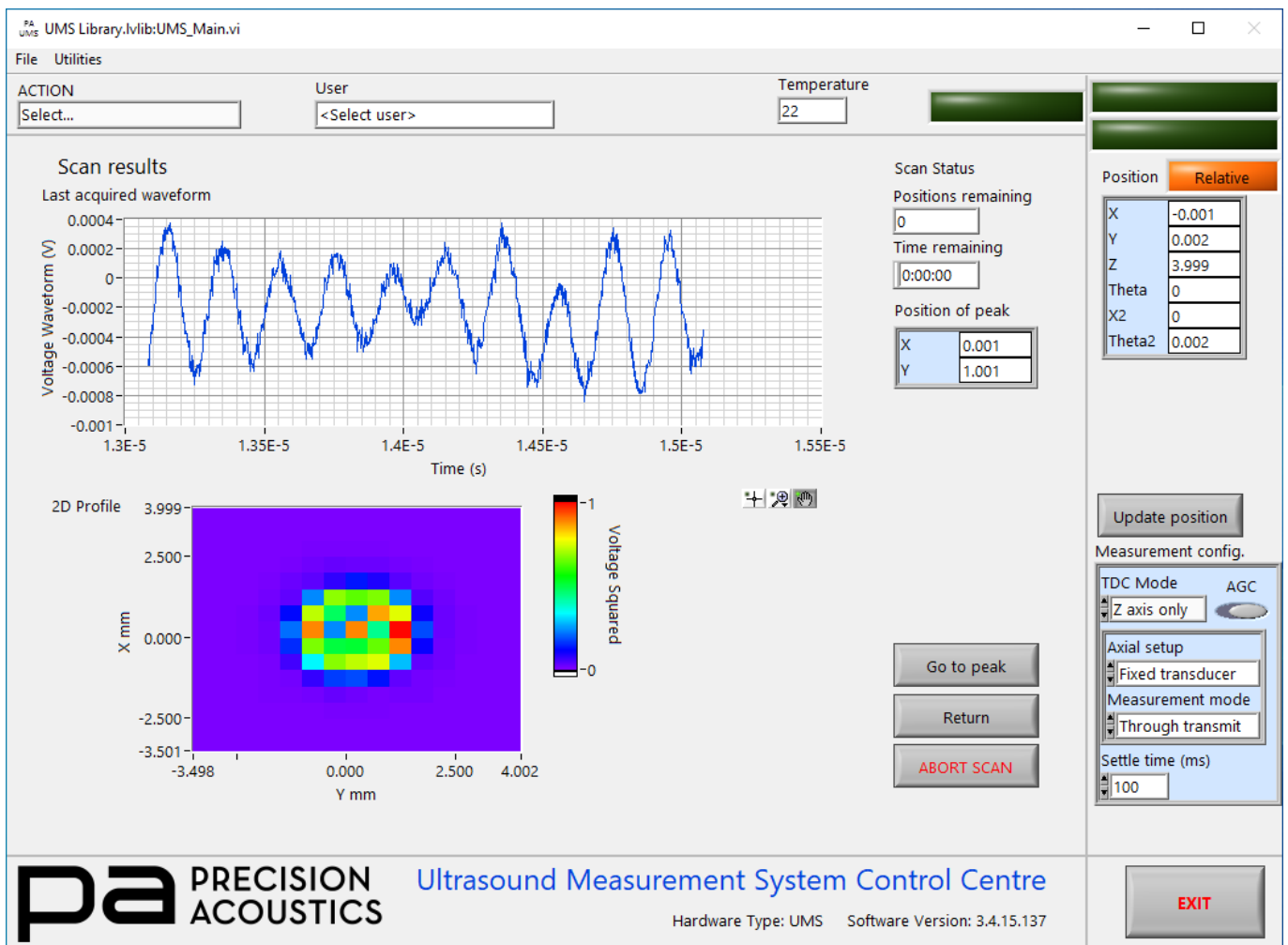


Figure 1 – UMS3 acquisition interface.

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