# Support

### **Technical training**

KONGSBERG provides hands-on training delivered on site for groups up to 24 people. Larger groups can be accommodated on request. Refresher courses are also available.

### **Repair and Upgrade Services**

Our factory or an approved service depot can repair MS 1000 Scanning Sonar. Mid-life upgrades and re-builds are provided by the factory. Software upgrades can be downloaded from our site.

### **Telephone Support**

Call +1-888-464-1598 Toll Free for support during normal working hours, 0800 to 1600 hrs PST.

# Technical specifications

### **System Requirement Specifications**

- Processor: 1 GHz 32 bit (x86) or 64 bit (x64) processor or higher
- Memory: 1 GB or more RAM
- Hard drive: 300 MB or more free hard disk space
- Graphic device: 64 MB or more RAM, DirectX 9 Compatible
- Interface Port: 2 or more USB ports
- Input device: Keyboard, Mouse, MS 1000 Remote Keypad (optional) (901-80020000)
- Operating System: Microsoft<sup>®</sup> Windows XP Pro<sup>®</sup>, Windows 7 Pro (32 bit or 64 bit)

### **Interface Specifications**

Serial: RS232/RS485 through user supplied	l telemetry system
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• USB: MS 1000 USB Interface Unit (901-60150000, 901-60160000, 901-60240000)

1007D Series Altimeter

• Single-Axis Heavy Duty Rotator (806-00360000)

• Ethernet: 1171 Ethernet Sonar Head (975-21050000); ROV HUB (975-60010000)

### **Compatible Devices**

- 1071 Series Digital Sonar Head
- 1171 Series Digital Sonar Head

### **Part Numbers:**

- 901-10010000 MS 1000 Standard Edition License, Media and Documentation Kit, comprising the following:
  - Software License Key for MS 1000 Software Based Sonar Processor Standard Edition
  - Media for MS 1000 Software Based Sonar Processor Standard Edition and Express Edition (CD)
  - Documentation for MS 1000 Software Based Sonar Processor Standard Edition and Express Edition (Printed)
- 901-10300000 MS 1000 Express Edition Media and Documentation Kit, comprising the following:
  - Media for MS 1000 Software Based Sonar Processor Standard Edition and Express Edition (CD)
  - Documentation for MS 1000 Software Based Sonar Processor Standard Edition and Express Edition (Printed)
- 427-00040000 3D Profiling Software License Key to upgrade Standard Edition software.

Due to the continuous development of its products, Kongsberg Mesotech Ltd. reserves the right to alter the specifications shown above without notice. Please contact the manufacturer for information on any updated specifications.

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### Kongsberg Mesotech Ltd.

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KONGSBERG

# **MS 1000** Sonar Processing Software Scanning Sonar

## MS 1000 Sonar Processing Software Version 5.0

### Description

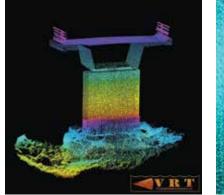
MS 1000 software is a Microsoft<sup>®</sup> Windows-based application that can be configured to control the complete line of Kongsberg Mesotech Ltd. digital scanning sonars and altimeters via industry standard telemetry interfaces.

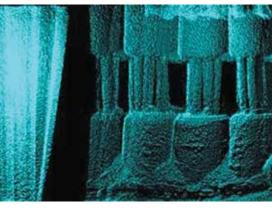
MS 1000 software installation includes both MS 1000 Express and MS 1000 Standard Edition. The MS 1000 Express does not require a security key (dongle) to run a sonar head. The MS 1000 Standard Edition requires a dongle to run a sonar head with enhanced features. Both versions will playback recorded files without a dongle.

The MS 1000 software converts a standard PC into a full-function sonar processor without the need for additional boards or hardware.









901-10017901-1.1





### **MS 1000 Applications**

- ROV Obstacle Avoidance
- ROV Pipeline Profiling
- Underwater Inspection
- Offshore Decommissioning
- Search And Recovery
- Diver safety

### Integrated Survey Features (Standard Edition Only)

- Helmsman Display
- Survey line planning
- Survey area coverage display
- Survey map/chart planning
- GeoTiff Files importing
- Coordinate conversion, projection and Datum shift
- Sonar location calibration
- Event recording and replay

Profiling images captured with Standard Edition software, courtesy VRT Finland.

Key Features	MS 1000 Express	MS 1000 Standard
Telemetry Interface		
RS232/RS485	Х	Х
USB	Х	Х
Ethernet Head	Х	Х
ROV HUB		Х
Sonar Head Support		
Altimeter	Х	Х
Domed head	Х	Х
Mini-head	Х	Х
Hi-Resolution Sonar		Х
Multiple Sonar operation		Х
Sonar Head Settings		
Gain, Range, Resolution	Х	Х
Scan Sector, Scan Speed	Х	Х
Transmit Power, Frequency	Х	Х
Scan Mode Polar, Sector	Х	Х
Scan Mode Sidescan, Echosounder		Х
Pulse Length, Bandwidth, TVG		Х
Peak Detection, Compression		Х
Target Tracking		Х
Profiling and Export		Х
Sonar Display Settings		
Colour Palette Selection	Х	Х
Grids, Cursors, and Annotations	Х	Х
Multilingual User Interface	Х	Х
Slant Range Correction		Х
External Sensor Support		
NMEA Standard Sensor	Х	Х
Valeport® MIDAS CTD Sensor		Х
Track Plotter Survey features		Х
Maintenance		
Program sonar factory baud rate	Х	Х
Upgrade sonar firmware	Х	Х
Factory Reset	Х	Х
Data recording and playback	Х	Х
Error message log window and file	Х	Х
Multiple user operation		Х

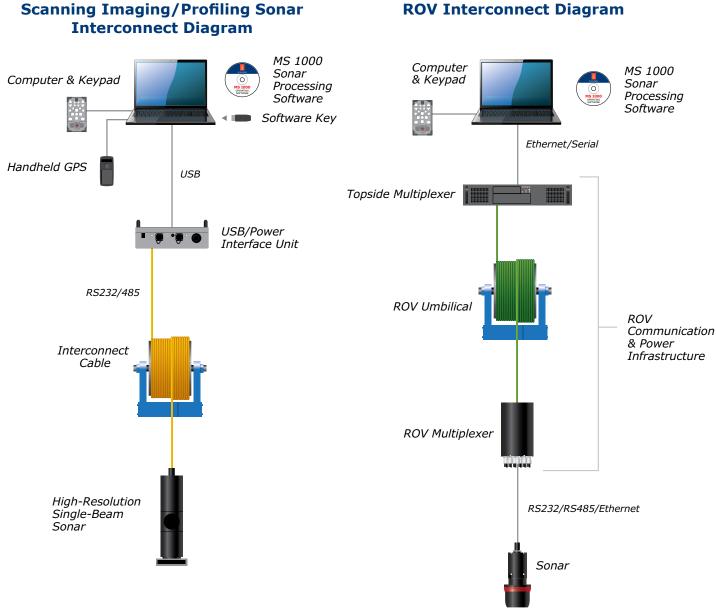
### **Express Edition**

Ideally suited for single sonar head operation on ROVs.

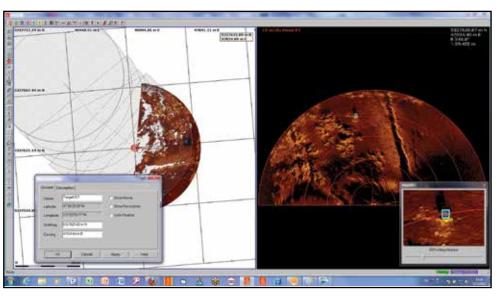
### **Standard Edition**

Tailored for underwater search, surveys, and underwater construction support where geo-referencing of targets is required. Incorporates key features for underwater SAR teams and survey and inspection companies.

# Interconnect Diagrams



Below left: Trackplotter Display—ROV view. Below right: bridge piling. Image below right courtesy VRT Finland.



### **ROV Interconnect Diagram**

