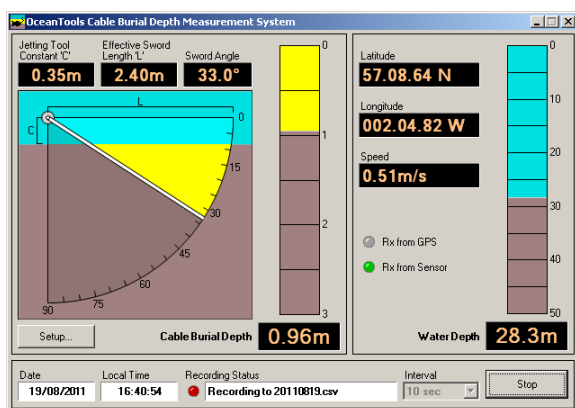


OceanTools can develop *bespoke* software solutions to support third-party sensors or special variants of our standard products.

Each solution is designed to perform user-specified calculations, present an intuitive user interface, provide a data logging function or generate serial outputs according to agreed requirements.



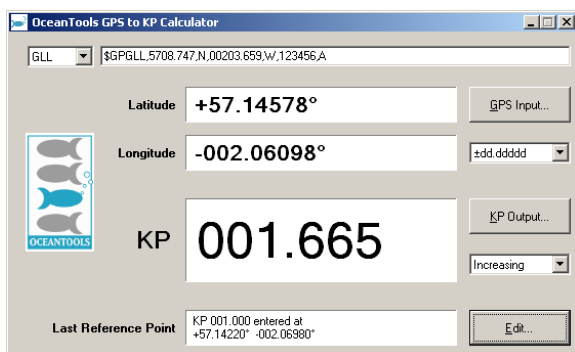
Cable Burial and Depth Measurement

- Depth and angular position sensors on custom jetting tool
- NMEA GPS input for geographical position and speed
- Unique real-time graphical display
- Logged data saved in CSV format for subsequent analysis



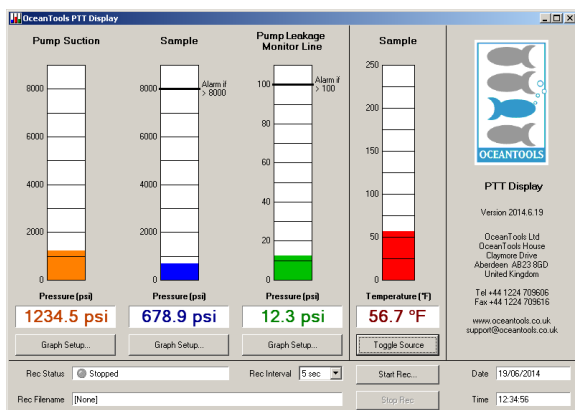
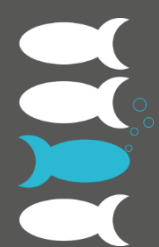
Subsea Cutting Tool Instrumentation

- Multiple sensors installed on a subsea cutting tool
- Pitch and roll from **OceanTILT** or **OceanFOG**
- Third party pressure sensors interfaced via RS485
- Software offsets and alarm thresholds
- User-defined graphical angular encoder display
- Logged data saved in CSV format for subsequent analysis



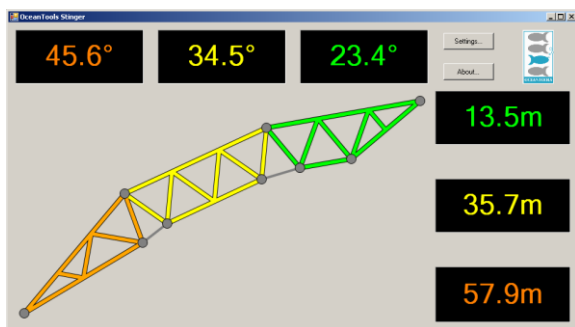
GPS to KP Calculator

- NMEA GPS input for geographical position
- Manually entered Kilometre Post reference point
- Calculates KP distance along pipeline or cable
- RS232 output for overlay or survey



Pump Pressure and Temperature Monitor

- Pump suction and external leakage pressure sensors
- Additional pressure and temperature monitoring
- All sensors polled via shared RS485 interface
- Real-time graphical display with over-pressure alarms
- Logged data saved in CSV format for subsequent analysis



Stinger Monitoring System

- Monitoring angle and depth of a pipelaying stinger
- Support for up to 3 **OceanTILT** precision inclinometers
- Support for up to 3 **OceanDEPTH** depth sensors
- All sensors polled via shared RS485 interface
- Installation offsets for orientation and position
- Colour coded stinger hitch and sled section display

Summary

Our bespoke software solutions accept serial inputs from a range of OceanTools or third party sensors including pressure, temperature, flow rate, orientation and positioning devices. Sensors may be connected to a **Surface Interface Box (SIB)** via a single RS485 network or several RS232 lines. Sensors with current loop or analogue voltage outputs can also be accommodated.

The supplied display software is typically designed to perform user-specified calculations on real-time sensor inputs, recorded data and user-defined parameters. Data may be displayed in a wide range of numerical and graphical representations designed to suit the operator. The system may also provide a data logging function or generate serial outputs according to the agreed functional specification.

The software can usually be installed on a client-provided PC, or it can be offered pre-installed on a ruggedized laptop or flat panel display. Alternatively, a system based on the industry standard OceanTools **SDO** or **HDO** video overlay can superimpose textual and graphical data onto live video.