



Advantages

- Deploy Instantly
- Real-time ROV GPS Location
- Navigate in real time
- Google Earth compatibility

Applications

- Search and Recovery
- Port and Homeland Security
- Underwater Crime Scene Investigation
- Offshore Drilling
- Inland and Offshore Inspections

The Smart Tether, a complete ROV navigation system, offers unmatched, real-time GPS location of your ROV. The Smart Tether system is ideal for port security and search and recovery missions. No matter what your mission, the Smart Tether system makes it smarter, faster, safer, and easier.

System Includes

- Instrumented ROV Smart Tether
- Ultra-Mobile PC with Smart Tether software
- GPS Receiver
- Smart Tether Control Box
- All necessary connectivity hardware

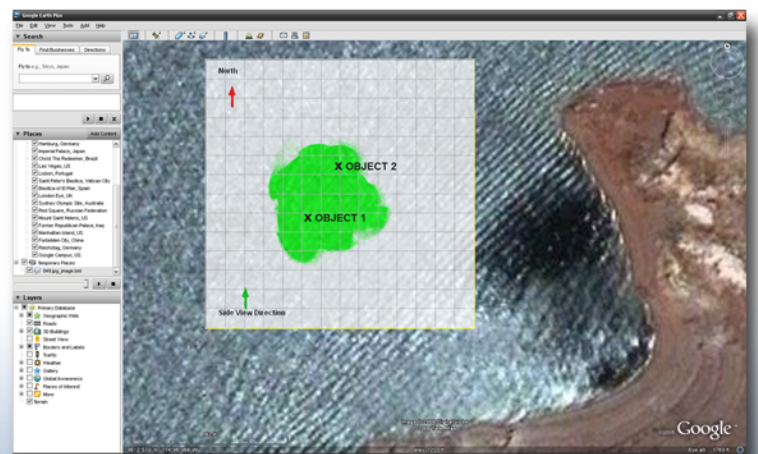


Connect with Google Earth

With the click of a button, you can view the scanned area and targets you have marked with your ROV camera or SONAR in Google Earth.

Geographic landmarks can be instantly referenced, making it easy to confirm the location of any points of interest under investigation. The Google Earth feature is also ideal for post-processing of data saved from your operation or for creating interactive graphics to aid in discussion or presentations.

Utilizing Google Earth, the **Smart Tether is the easiest and fastest way to confidently locate your ROV, anywhere in the world.**



Google Earth is a registered trademark of Google, Inc.

Technology

The Smart Tether includes a series of sensor nodes embedded in the ROV tether. These nodes use orientation and pressure sensors to measure the tether shape and track the position and heading of your ROV. This data is calculated and displayed on your computer screen in real time.

The sensors in the Smart Tether operate on a high-speed communication system, allowing position update rates more than 5 times per second.

Because the Smart Tether is a completely non-acoustic technology, it is not susceptible to interference from acoustic noise, reflections, or obstructions in the operational area. Furthermore, there are no additional sensors, transponders, batteries, wires, or other equipment to manage. All of the sensing equipment is housed in the ROV tether, making setup time virtually zero.

Operational Specifications

Position update rate:	> 5 Hz
Positioning error:	< 1.5 m (5 ft) depending on deployment configuration
Tether length:	40 m (131 ft)
Tether buoyancy in fresh water:	neutral (negatively buoyant extension tether available)
Available extension tether:	80 m (262 ft)
Sensor node diameter:	21.5 mm (0.850 in)
Sensor node length:	152 mm (6 in)
Number of sensor nodes:	6, distributed along tether length
Power requirement (tether):	30-90 V DC
Power requirement (PC):	110-240 V AC
Power consumption (tether):	2.5 W
Tether working strength:	890 N (200 lbs)
Depth sensor saturation:	118 m (388 ft)
Maximum safe depth:	290 m (950 ft)
Included topside computer:	Samsung Q1UP-XP touch-screen Ultra-Mobile PC
Included GPS receiver:	Navibe GM720

Software Interface

- Simple, intuitive operation, optimized for use with included touch screen UMPC
- Live ROV GPS coordinates
- Live 3D tether position plots
- Target marking of current ROV location or known coordinates
- Metric and English operation
- User-selectable latitude/longitude coordinate format
- Operation with GPS (absolute positioning) or without (relative positioning)
- Customizable plotting of area scanned by camera or SONAR
- Simple, live exporting of marker and scan histories to Google Earth
- Intelligent data storage and retrieval