

Untangling Underwater ROV Cables

The risk of cable snarl-up during multiple ROV operations beneath the waves is avoided in a tether management system (TMS) design breakthrough. The solution came from a joint project mounted by Subsea 7, one of the world's leading subsea engineering and construction companies, and world-leading ROV manufacturer, Saab Seaeye.

Together they solved the problem of entanglement posed by shifts in current during operations when a number of TMS cages carrying their ROVs are lowered from a single vessel.

With up to six TMS systems working at any one time, an operator has to contend with a multi-dimensional collection of TMS cages, ROV vehicles and cables, in the sea below.

The answer from the engineering team was to fit powerful thrusters to each TMS so they can hold position whilst their ROV carries out its task.

The operator simply dials up a target heading and magnitude of thrust, and the system automatically holds the unit steady, leaving the operator to concentrate on tasking the ROV.

Added to that, an auto-heading feature constantly aligns the opening of the TMS with the swimming position of the ROV thereby orientating itself ready for recovery of the ROV to the TMS, and avoiding the risk of the ROV tether running behind the TMS.