Thinking ROV

Engineers at Saab Seaeye, UK, have created a new development in ROV architecture, â€˜The Intelligent Control of Nodesâ€™ (ICON). The concept allows each device within the ROV to think for itself and talk remotely to operators and engineers through a gateway into the heart of the vehicle.

It gives users remote access to diagnostics, software upgrades and system inventory directly on board the ROV, via an enabled web interface, from anywhere in the world. ICON makes this possible by enabling each microprocessor (node) to operate as a sensor and report its unique status to the central control system.

This kind of self-management of the ROV makes it better able to cope with its hostile environment and accommodate breakdown and damage and stay working for as long as possible. A core objective of ICON is to ensure the ROV will survive the loss of one or more systems or components.

Improving and simplifying control to deal with problems as well as day to day tasks is part of the ICON philosophy. Previously, ROV systems have needed the operator to make various assumptions about the state of the ROV under command, whereas ICON gives precise feedback.