



Hydrovision Ltd. Aberdeen, Scotland



A small Hydrovision Ltd.
ROV Model



ROV Model Monitoring and Control by Hydrovision

About Hydrovision Ltd.

Hydrovision Ltd. Is the world leader in the manufacture of Remotely Operated Vehicles (ROV's). Hydrovision is a private limited company located in the heart of the UK offshore oil and gas industry, specializing in the design and manufacture of sub-sea robotic systems, which need to meet extremely demanding standards of performance, control and endurance for their Underwater Salvage, Cable Laying and Offshore Oil drilling industries that deploy these ROVs.

ICONICS Software Deployed

Hydrovision Ltd. selected ICONICS GENESIS32 Software suite of SCADA and OPC products to meet their requirements for a new scalable control system for their ROVs, sub-sea tooling and other custom tooling

"Through many ROV implementations with the ICONICS GENESIS32 software over several years, it has proven to be a highly reliable, accurate and dependable system."

Hydrovision Ltd.

applications. Their specifications required a PC-based system running under a Windows operating system and meeting open standards like OPC. AlarmWorX32, TrendWorX32 and GraphWorX32 modules met all their needs.

Key Features

The modularity of the GENESIS32 software allows the desired scalability of their complete control system on a scale of 4 to 1, which represents their largest machine to the simplest system configuration. The GENESIS32 software suite of applications operate seamlessly together, communicating solely via an OPC server which allows easy interface to any industry standard hardware and software systems. The software also has an intuitive development environment, which allows for speedy development and re-engineering by both experienced and new SCADA Engineers.

Project Summary

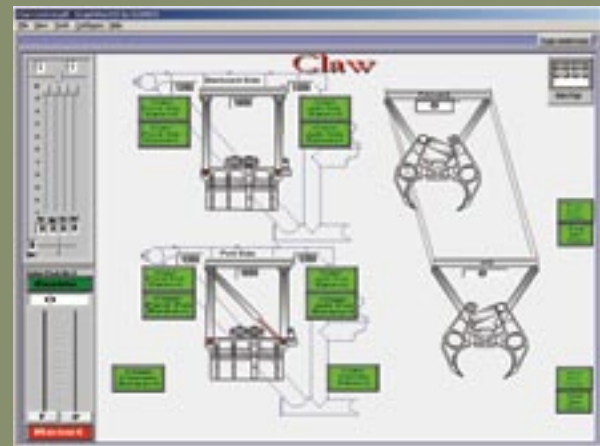
ICONICS GENESIS32's GraphWorX32 software was used to create the Operator Interface HMI screen using multiple touch screen control panels for control of the ROV machine with a single main display to con-

tinuously present the system data. The sequential tasks that needed to be performed were created on separate individual HMI display screens which are brought up to view using touch screen control buttons. Each sequential screen presents only the controls and feedback information required for each sequential task. This was achieved by creating a series of animated general assembly CAD drawings of the machine and sections of the tool to be controlled. Sensor feedback information from the tool was used to animate these drawings allowing the operator to continuously view the real time status of the tool and of each sequential task. Backup video cameras are also fitted to the ma-

ify after implementation on an original manufactured machine, and initially economical/proven to be on an ongoing basis. The software system is based on a hardware and software platform that will continue to evolve and be supported for many years to come. Also, the nature of the control system implemented with the ICONICS GENESIS32 software allows Hydrovision Ltd. to train their customers to make their own modifications to the machines, in the case of using different tooling or in different use applications.



Another Hydrovision ROV Control Screen



ROV Claw Control

chine to assist the operators to enable them to observe the tool's operation. As the operators progress through the display screens to control the tool's functions, using the touch screen buttons, they will carry out the complete machine process operation.

Benefits of the System

The experience Hydrovision Ltd. has had with the ICONICS GENESIS32 software suite of tools is that they have exceeded their goal of creating an ROV control system that is totally open in design, maintainable for the foreseeable future, scalable from their smallest designed machines up to the most complex machine, easy to mod-

Conclusion

ICONICS has worked closely with Hydrovision Ltd. to make this ROV Machine control project successful in every aspect. Hydrovision Ltd. participates in the ICONICS OEM Support and Maintenance program to keep its software updated and for access to technical support personnel as needed.