

Modicon® PLCs and I/O monitor offshore heavy lift systems

Oil & Gas
Versatruss Americas LLC



UNITED STATES

The installation

Versatruss Americas LLC, Belle Chasse, Louisiana, designs and manufactures “one of a kind” offshore heavy lift systems primarily for use in the installation and removal of large offshore oil production facilities. To ensure structural soundness and personnel safety during this installation/removal process, the object being lifted must be kept level and planar with the barge(s).



The Magelis™ interface on board a Versatruss lifting barge.

The current installation consists of two inclinometers on each barge and lift subject and a wireless Ethernet network; however, there is no means of collecting data in real-time and transmitting it to a central location. Schneider Electric was chosen by the customer to develop a low-cost method of remotely monitoring the attitude (pitch/roll) of the two barges and lift subject, and to provide a visual interface for the system operator which accurately depicts this information.

The objective

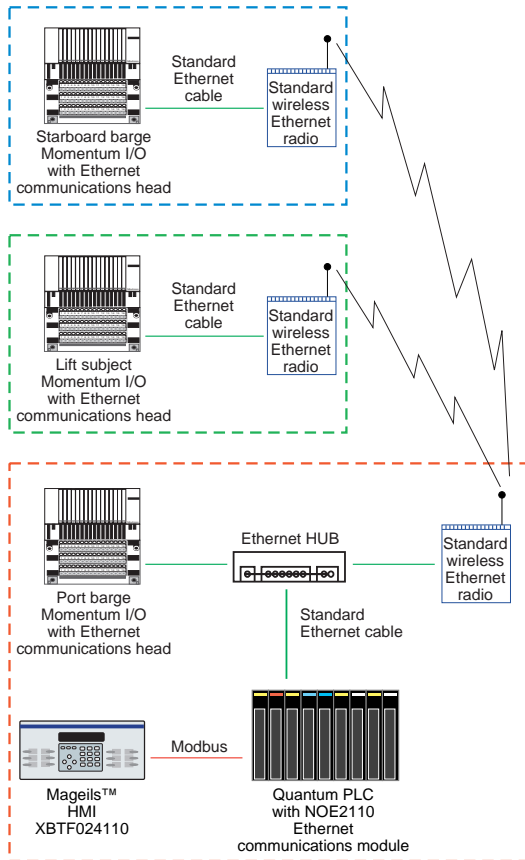
The project objective was to provide a functional control system, operating without downtime, at the least possible cost, installed within the six week time-frame.

Merlin Gerin

Modicon

Square D

Telemecanique



The control system architecture for the barge lift system.

The solution

Designed by Bill Thrift and Jim Lester, Versatruss Americas, LLC; Bill Wang, TEST Inc.; and Steven Wetzel, NU-LITE Electrical Wholesalers, LLC, the solution includes a Modicon® Quantum™ PLC with three remote Modicon Momentum™ I/O modules, each equipped with an Ethernet adapter for data collection and a Telemecanique™ Magelis™ operator interface.

Pitch and roll data is gathered by each Momentum I/O module, transmitted over the Ethernet network, and read by the Quantum PLC. This data is in turn given to the Magelis HMI to provide the system operator with an accurate and graphical depiction of the attitude at each location.

This installation took only four weeks to install, due to the ease of use and integration of the Modicon equipment, and also the exceptional help provided by Steve Wetzel at Nulite.

Customer benefits

- Speed of communications
- Low cost of each unit
- High degree of accuracy
- Ease of upgrading the Momentum equipment



Versatruss Americas LLC designs and builds offshore heavy lift systems