

Mega-yachts from NightWatch Industries: Interface by InduSoft

Beautiful Pleasure Craft, Employ Equally Elegant Monitoring Systems from InduSoft



- Using satellite uplinks, NightWatch can upgrade the monitoring system of any ship with the click of a mouse.
- The solution has been developed as a template so future implementations proceed smoothly quickly.
- PCs are located around the ship in places where an industrial panel might seem architecturally inappropriate—such as the captain's state room.

The Captain can view the general status of dozens of systems at a single glance, assessing the general health of the ship almost instantly.

Background

Crystal blue water. Sugar-white sands. These are the images that yachting connotes for most of us. And indeed these images are congruent with the idea of pleasure-boating. But ask any yacht Captain, and he'll tell you that these beautiful, sea-going pleasure craft can comprise dozens of complex systems that must be

constantly monitored. This reality is particularly true of the mega-yachts enjoyed by the wealthy today.

At one time large boats, while complex, were built with systems that could be monitored manually, and the information required to manage them was relatively simple to interpret.

Not so today. Modern yachts are equipped with complex propulsion, electrical, fuel, lighting, and alarm systems. All of these systems must be constantly monitored to ensure that they are properly working, because an unexpected breakdown can be costly and, at times, even dangerous.

A modern 120'–150' pleasure craft can require over 400 different analog and digital checkpoints that must be simultaneously monitored. Such complex tasks



Continued from front page...

can be properly executed only using specialized software applications.

The Challenge

Computing systems are not new to large watercraft. Computers have been used to monitor nautical systems for decades. What is constantly changing are the types of computing systems and the applications they run. As technology advances in both the systems that run ships and the computers that monitor them, ship builders are quick to employ that technology for a competitive or military advantage.

It was the competitive advantage NightWatch Industries was seeking when they turned to Southern Controls and to InduSoft two years ago. Alan Davis of Southern Controls explains: "NightWatch had been using Visual Basic to develop display programs for large pilot-house monitors, but they eventually discovered that they really needed a better HMI system to meet the needs of the large, multi-screen, glass bridges which are now standard in the mega-yacht world.

Norman Dahl of NightWatch agrees. "The smaller PLC driven

flat panel displays are fine at the various utility monitoring stations, but the yacht captain needs a better view of how things are running. The pilot-house typically contains an impressive number of controls for which the captain is responsible, and a large screen is really necessary for monitoring the host of systems that run the ship. The passengers and crew depend on it."

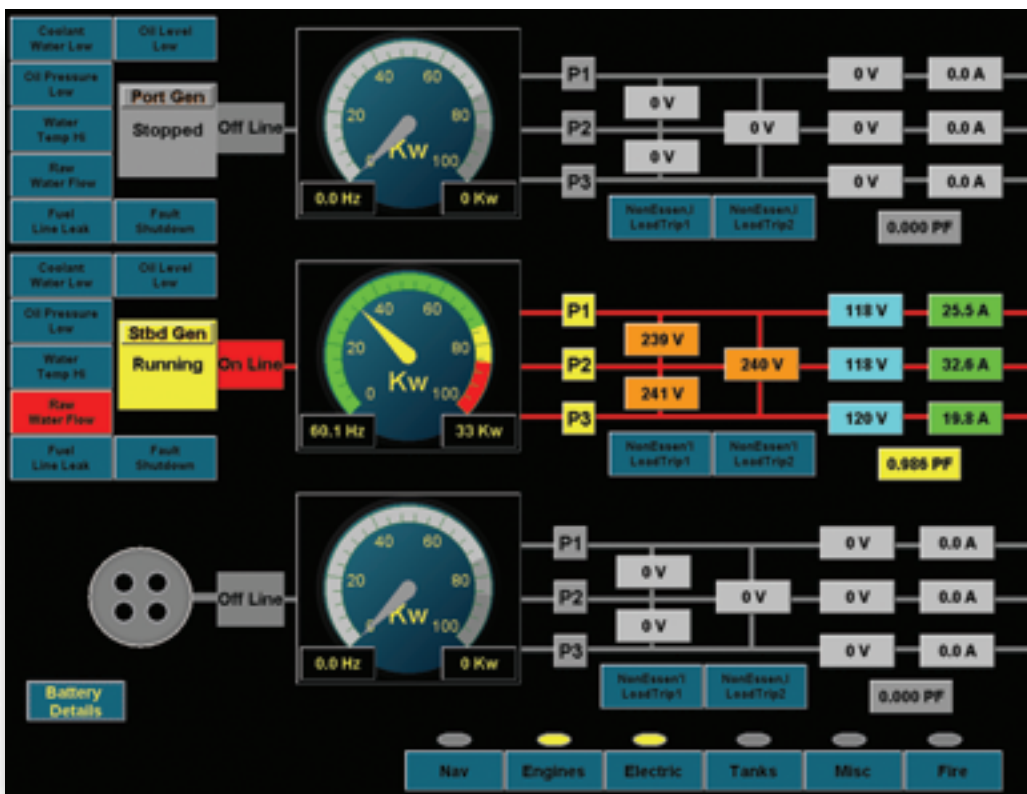
This need drove the decision to seek out HMI/SCADA configuration software designed for PCs. They really needed a solution that they could use to

easily create templates to keep their own costs down. They also hoped they could find some kind of networked system that would enable both the crew and guests to view the ship's system, monitoring it from PCs elsewhere on board.

They looked at several systems, but were immediately drawn to InduSoft-in part because it came so highly recommended by Davis: "As an InduSoft distributor I've helped a lot of customers successfully achieve technical and business objectives very much like the things NightWatch was trying to achieve. Most companies are looking to implement superior solutions and hoping to do that while either maintaining or even lowering their costs. InduSoft fits the bill."

The Solution

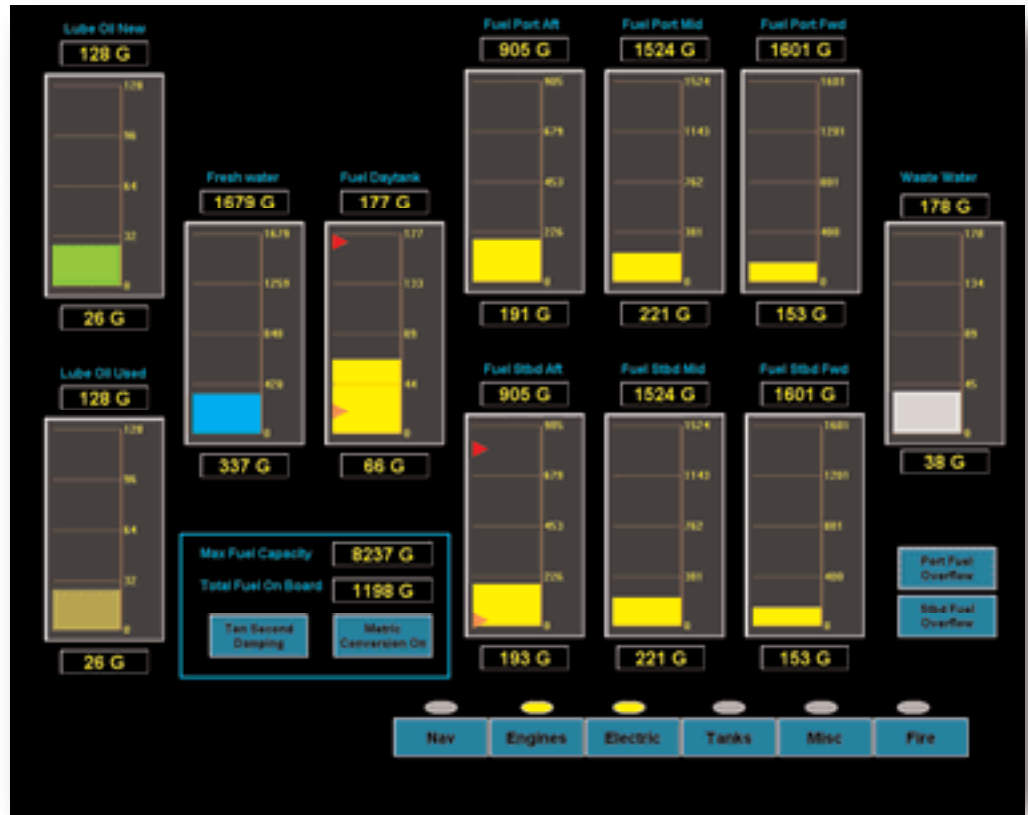
The InduSoft offering, InduSoft Web Studio V6.1, exceeded NightWatch's expectations. Using it, Dahl and his team were able to configure an entirely new



With the click of a mouse, InduSoft screens provide details that enable the Captain and his crew to take quick action and make necessary system adjustments.

system, in surprisingly short order. “It can take up to two years to build a yacht, and no two ships are identical.” Said Dahl. “That was really the most challenging part of the entire effort. We couldn’t implement the entire system right away because we had to build the first system as the yacht was being built-but configuring and converting the basic system was surprisingly manageable.”

They began with the basics, choosing to continue using OMRON PLCs, which NightWatch has been a believer in from the beginning. The fact that OMRON was an InduSoft partner was also a big factor in choosing InduSoft Web Studio. NightWatch was inspired by the partnership because they believed that there would be minimal compatibility challenges-and they were right.



The InduSoft-based application typically monitors more than 400 checkpoints.

As systems began to come online, monitoring modules were put in place and tested, and when there were challenges, InduSoft responded with solid technical support. This factor was important because NightWatch made the unusual choice not to sign up for training when they purchased InduSoft.

Dahl offered “We would normally have invested in training with a new application like InduSoft Web Studio. However, we had

two factors going for us that caused us to proceed without it. First, we were very familiar with Visual Basic, and we also knew that we had time to learn the product right here because of the lead time to build the yacht. The gamble paid off and I was pleasantly surprised that the product really wasn’t that hard to learn.”

When there were challenges, though, InduSoft responded with unexcelled customer sup-

port. When all was said and done, the system worked beautifully. The system monitors hundreds of different points, and thanks to the InduSoft advantage, the screens are more attractive and more articulate. The Captain can monitor dozens of systems almost effortlessly-a critical requirement.

Battery and electrical, fire alarms, propulsion, engines, and navigation lights, are just a few of the systems InduSoft Web

Studio is now monitoring. And all of these systems can be monitored from anywhere on the yacht.

The ability to monitor from anywhere wasn’t really new or different; what was different was the network capability, as well as a more attractive presentation. While the latter might seem trivial, it’s important to remember that a 100-plus foot pleasure craft is a luxury purchase made by people who are accustomed

to nice things. In a case like that, "high tech, state-of-the-art" is part of what's being sold, and it has become one more competitive advantage for NightWatch.

The PC networking capability was also a very big part of the value NightWatch now offers. PCs can now be located around the ship in places where an industrial panel might seem architecturally out of place—such as the captain's state room. Also, the larger screens that are available on PCs further enhance the attractive presentation of the system.

In addition to these advantages, NightWatch found that the tagging structure was superior and

that tags are far easier to edit than working in raw Visual Basic. According to Dahl: "The implementation is so much easier, because—among other things—I can edit tags using a spreadsheet. Visual Basic is primitive by comparison."

Results

Thanks to InduSoft Web Studio, NightWatch now offers their customers a superior product, which they can in turn offer their own customers. NightWatch can even upload software upgrades remotely from their office in Jupiter, Florida. Using satellite uplinks, which are available on most yachts in this class, NightWatch can upgrade

the monitoring system of any ship with the click of a mouse. All of this adds up to improved client relations and the opportunity to expand their business.

With InduSoft, NightWatch is now on the cutting edge of pleasure yachting monitoring systems. "The systems we are developing quite literally represent the future of systems monitoring designs," says Dahl. "Using InduSoft Web Studio we've raised the standard our clients now expect from us, which yields a competitive advantage that's hard to quantify."

And now that the solution has been developed as a template,

future implementations are expected to proceed even more smoothly and more quickly. That initial investment in InduSoft is paying big returns that can't—for the moment—be directly measured in dollars, but it certainly has provided a near-term pay-off for NightWatch that can be measured in value and quality.



UNITED STATES

Sales, Marketing, Engineering,
and Support
3445 Executive Center Drive, Suite 212
Austin, Texas 78731
Phone: 877-INDUSOFT (877-463-8763)
or (512) 349-0334
Fax: (512) 349-0375
Email: info@indusoft.com

BRAZIL

Sales, Marketing and Engineering
Av. Engenheiro Luís Carlos Berrini,
962 - 8º andar
São Paulo, SP - Brazil - 04571-906
Phone: (+55) 11 5505-0093
Fax: (+55) 11 5505-1672
Email: info@indusoft.com

GERMANY

Sales and Support
Bruchsalerstrasse 18
D-68753 Wagbausel, Deutschland
Phone: (+49) 7254-952841
Fax: (+49) 7254-952843
Email: info@indusoft.com