

# HORIZON INTEGRATION SYSTEMS INTEGRATOR

## From beginning to end, around the world!

Horizon adding value through integration.



Beginning in China



Ending in Florida USA

- PLC integrated with Engine, throttles and B&G marine instrumentation
- Full system operation and setup via touch screen HMI
- A global project, designed in the UK, installed in China, Commissioned in the USA
- Flexibility and innovation, key project values.
- Remote access system installed for routine maintenance and upgrades

When Central Coast Hydraulic engineering (CCHE) a hydraulics expert based in NSW Australia, needed a PLC based automation system to control hydraulics and main engine propulsion on board a racing yacht. Horizon Integration got the call!

Highland Fling XII an IRC52 race yacht, has been fitted out with a complete hydraulics package for all of its sailing functions and deck winches.

Working with CCHE Horizon designed a control system that integrated and allowed flexible control of the hydraulics. Based around a Mitsubishi Q series PLC the control system allows the sailing team to use the hydraulic functions whilst sailing, at the touch of a button.

Main HMI screen showing the engine RPM, OIL and temperature gauges



The PLC plays an important roll not only controlling the hydraulics, but also taking complete control of the engine functions. The yacht has two electronic throttles at port and starboard helm positions that are fully integrated to the PLC. Engine monitoring is also performed on the E1000 series HMI this removes the traditional engine gauge panel helping to reduce weight!

The onboard B&G marine telemetry system was also integrated with the PLC, the interface between the B&G and PLC is used to make decisions on how the hydraulics operate based on key sailing data.

With the hydraulics being designed in Australia, the control system in the UK, the yacht itself built in china, and then moving on to Florida USA for final commissioning, this was a truly global project.

Clear and consistent communication played a key role in turning this project into a functioning system. Horizon is well placed and experienced in providing solutions in many parts of the world on time and on budget, with flexibility and innovation as core values.

### Contact us

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Below:  
During onsite commissioning, showing the PLC mounted to the rear bulkhead.

