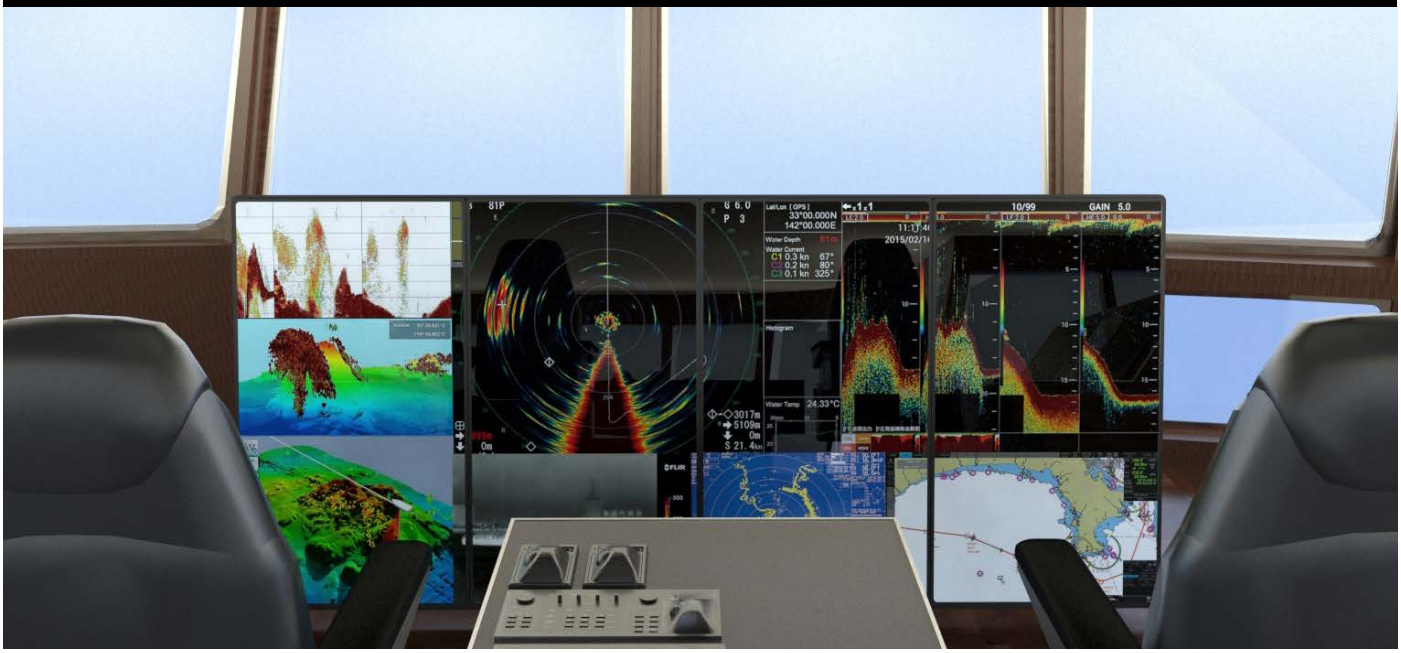
MITSUBISHI ELECTRIC
Changes for the Better

DISPLAYSOLUTIONS
CASESTUDY

Turnkey AV solution for the modern fishing vessel.



There are few more demanding environments than ships at sea. Modernising the control systems of a working fishing vessel plying the high seas of the mid-Atlantic was an unusual technical and logistical challenge for Mitsubishi Electric and its technology partners.

BACKGROUND

Technology has become an integral part of commercial fishing enterprise. Modern fishing vessels, such as the Icelandic-registered M.S. Saga, are now heavily reliant on a wide range of high-technology aids; from navigation systems, remotely operated winches and fish-finding sonar to sensors monitoring the ship's status and vital emergency systems such as fire alarms.

PROJECT LOCATION
Iceland

CUSTOMER
M.S. Saga

APPLICATIONS
Control system

PRODUCTS USED
LM55P2A with Mauell X omnium

INSTALLATION
Brimrun Iceland

FURTHER INFORMATION
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PROBLEM & SOLUTION

With the safety of the ship and its crew dependant their decisions, it's vital that the captain and bridge officers are able to closely monitor everything that's happening onboard. But over time, the amount of equipment crammed into the limited space of the bridge meant that the task of managing the ship's many systems had become increasingly unwieldy and overwhelming.

The ship's owners turned to marine technology specialists Brimrun Iceland for help. Working in conjunction with Mitsubishi Electric, KVM technologies specialist Adder and controller manufacturer Mauell, Brimrun proposed to completely overhaul the M.S. Saga's control system architecture with an IP-based network solution, replacing the numerous bridge displays with an LCD videowall system from Mitsubishi Electric to combine data from all the ship's systems into a single, unified display.

Solid reliability and excellent build quality where vital considerations in the system design. But aside from the sheer technical challenge of developing an effective and robust solution, Brimrun faced other problems: The M.S. Saga is at sea continuously, returning to its home port only once every two years for maintenance. Therefore the entire system refit would have to happen while the ship remained fully operational, fishing off the coast of Africa.

INSTALLATION & RESULTS

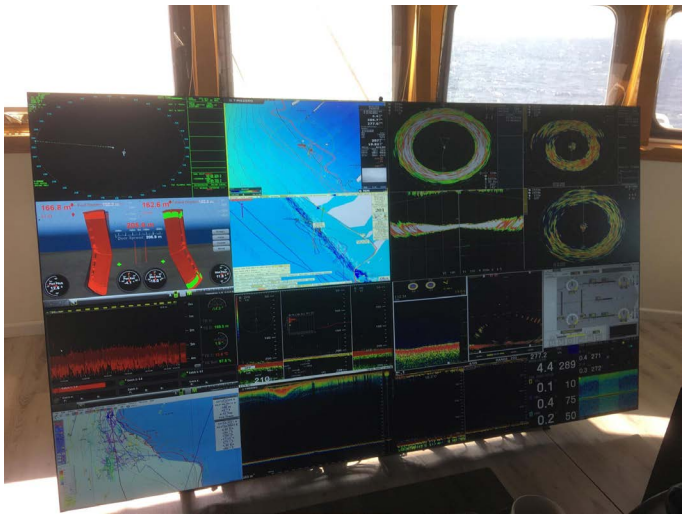
The original 12 individual bridge monitors were replaced with a 4 x 1 configuration of Mitsubishi LM55 55" LCD monitors, controlled by a Mauell processor. The previous point-to-point wiring system was replaced with Cat6 and the DVI outputs from the ship's radar, off-air TV receiver and echo sounder are routed via a DVI switch to the main Mauell processor. A further nine DVI inputs from systems such as the trawl radar, sonar and navigation system are managed by an Adder KVM switch so they can be individually controlled from a single keyboard and mouse. Additional inputs handle a total of 16 CCTV cameras and digital data from the ship's Hermes system, which includes the fire alarms, engine alarms, the ship's digital log book and office computer, all of which are available to be viewed on the main videowall or on the captain's monitor and two other workstations.

To overcome the logistical challenge of completing the refit while the ship remained operational at sea, Brimrun worked closely with the ship's highly-skilled electrician, whose knowledge and methodical approach to the project proved an invaluable asset. An old radio room next to the bridge was converted to an equipment room to house three 19" racks. All the equipment from the front console was progressively relocated to the new location before the old console was finally removed and replaced by the new videowall display.

CUSTOMER REACTION

Thanks to the videowall installation on board M.S. Saga, the bridge has become a more efficient workplace and the task of managing the ship's operations considerably easier. Instead of being faced with a confusing array of different displays, the captain of the M.S. Saga now sits directly in front of a single screen, giving him a commanding view of all the systems.

Different scenarios can be selected easily via a pre-programmed touch controller. One important improvement of the system is that it can be programmed to behave intelligently and respond automatically to specific scenarios. For example, a fire alarm will automatically switch the main videowall to an emergency scenario, immediately bringing the relevant data to the captain's attention.



ULTRA NARROW BEZEL LCD FROM MITSUBISHI ELECTRIC

The LM55 Series 55" diagonal ultra narrow bezel displays from Mitsubishi Electric are designed and built in Japan to the same exacting specifications as its DLP and Direct View LED control room videowall displays. The LM55P2A and LM55P2V have been designed specifically for small to medium sized control rooms or breakout rooms which are limited in space but still require a high quality, rugged and reliable display solution.

All Mitsubishi Electric LCD displays offer Full HD performance, LED backlighting and Intel OPS slot. They are designed for high usage applications and can be used in either portrait or landscape mode. Up to 700cd/m² brightness and 4000:1 contrast combined with anti-reflective screens ensure excellent visibility in a wide range of ambient lighting conditions.

Request more information