

U.S. Navy Landing Signal Office Display System (LSODS) & UEI's Embedded Solutions

WORKING TOGETHER TO FIND SOLUTIONS

Naval Carrier Fleet Information Systems are complex networks of systems that include aircraft launch and recovery, onboard the ship operations, and data management including wind speed, landing signals, radar, and more. [The Landing Signal Officer Display System \(LSODS\)](#), a critical component of the information platform, manages carrier air traffic through a set of displays, controls, and processing equipment. A new flexible, deployable, and easy to maintain data and control system was needed for LSODS to manage video imagery, radar data, and other mission-critical information to guide the launch and recovery of aircraft aboard carriers.



THE IMMEDIATE CHALLENGES

- 1 LSODS needed a new data acquisition (DAQ) and control system, both compact and rugged enough to be deployed across the entire carrier fleet.
- 2 System needed to be portable, easy to access, and easy to maintain during operation.
- 3 System needed to be flexible enough to handle a variety of I/O, run on the industrial standard Open Platform Communications (OPC), and securely transmit and receive data.

UEI'S PATHWAY TO SUCCESS FOR THE LSODS

- UEI's solution included the compact [4-Slot FLATRACK](#) programmable automation controller system and two [3-Slot fibre-based control cubes](#). This configuration allowed for a compact, portable, and easily maintainable DAQ and control system solution.
- With specifications of meeting or exceeding -40 to +70 °C, 3 G vibration, and 50 G shock, UEI solutions were more than rugged enough to be deployed on active carriers.
- The entire system was OPC-based, and the inclusion of the fiber cubes allowed for secure high-speed transmission of data to a variety of analog input, analog output, and digital I/O.

END RESULT

UEI'S FLATRACK SOLUTION WAS SMALL ENOUGH TO BE EMBEDDED INTO THE LSODS REMOVING THE NEED FOR A LONG AND COMPLEX UMBILICAL CABLING TO SYSTEMS BELOW DECK

- [WIN]** UEI's flexibility to run most popular operating systems, programming languages, and applications on all UEI hardware, uniquely OPC in this case, was crucial for LSODS operation.
- [WIN]** Since UEI systems were to be deployed and were required to meet strict specifications, the complete LSODS was tested against MIL-STD-810, MIL-STD-167-1A, and MIL-STD-461G and passed all requirements.
- [WIN]** UEI's [10-Year Availability Guarantee](#) removes the worry of obsolescence and with UEI's hardware warranty, extendable to 10-years, the LSODS systems can operate for years to come.

ASK US HOW UEI CAN DO THE SAME FOR YOUR ORGANIZATION!

