

# ENSCO's SOFTWARE UNIT TESTING SERVICES

Improve quality and consistency while reducing the costs and risks of safety-critical software testing.

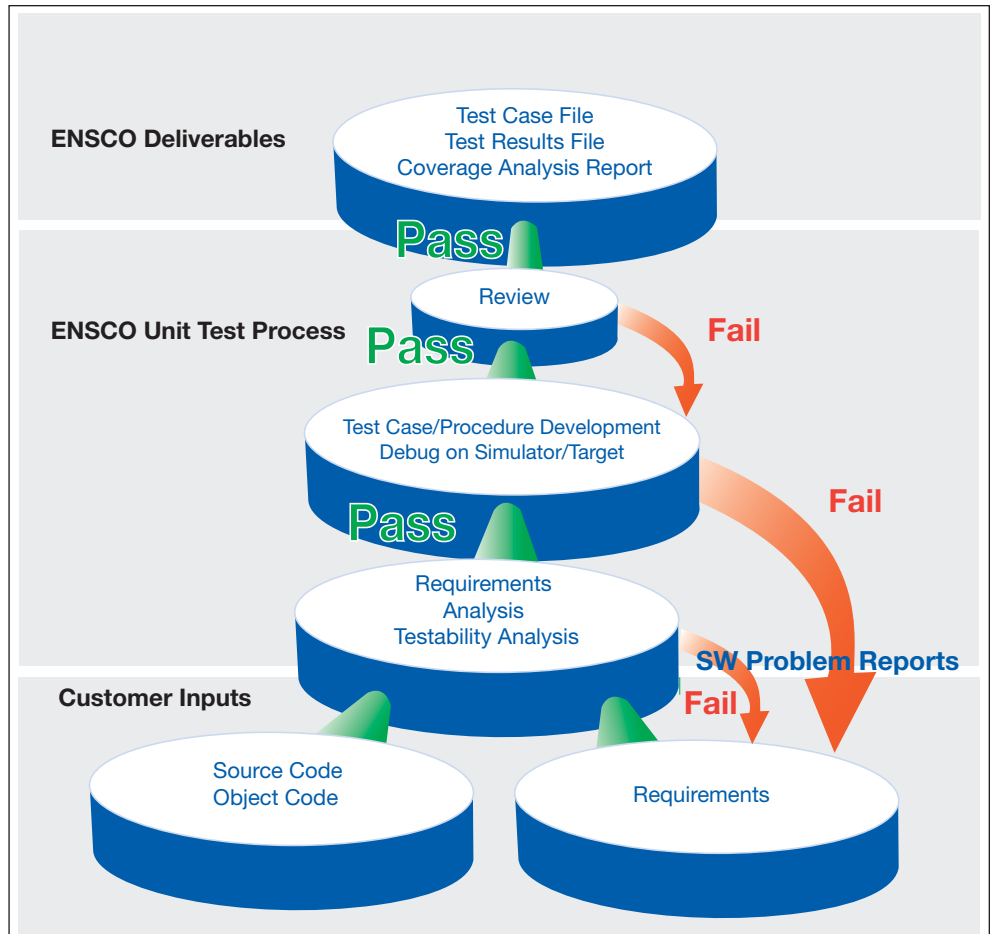
Please visit [www.ensco.com/avionics](http://www.ensco.com/avionics) to fill out our sizing questionnaire.

With over 20 years of formal software unit testing experience, ENSCO, Inc. offers a highly efficient and cost effective software unit testing service for high-reliability, safety-critical software. This experience includes RTCA/DO-178B through level A, SEAL through level 1, Mil-Std and other formal industry development standards. Through the use of proven processes, the latest verification tools, and experienced personal, ENSCO allows our customers to stay on, or catch up, to schedule while freeing up internal resources, improving quality, and reducing overall cost.

## ENSCO's Independent Software Verification Services can:

- Provide ROM or formal quotes for your software unit testing requirements
- Support planning and analysis for your software unit test activities
- Provide formal training, consulting, tool configuration, and on-site support as required
- Provide fully equipped and secure testing facilities
- Provide full project management, Subject Matter Expertise, software quality assurance, and CM/data retention capabilities
- Provide improved efficiency and schedule performance leading to recognized cost savings

As a proven expert in the software verification industry, we continually improve and refine our software testing approaches and tools. ENSCO employs the industry's latest automated tools, such as LDRA and Rational Test RealTime as well as a host of innovative proprietary tools. Our experience encompasses numerous commercial and military aerospace programs across multiple avionics system applications. A sample of our satisfied customers include: BAE Systems, General Electric, Hamilton Sundstrand, Lockheed Martin, Rockwell-Collins, Honeywell, Sandel, L-3 and MOOG. ENSCO employs formal training approaches and process



ENSCO's capabilities can help you meet your program and product testing requirements, reducing cost and schedule risk, while providing an accurate and high-quality test package.

intensive test procedures to achieve standards of excellence.

ENSCO's software unit testing team provides customers with the most rigorous levels of testing against DO-178B, ED-12B, SEAL and other safety critical standards. With over 1,000,000 hours of software unit test experience, we are intimately familiar with the planning, process, execution and management of the software test process. We offer a quick

turnaround on ROMs and will quote your software unit test jobs by SLOC, requirements, and complexity.

## Our dedicated test managers and engineering staff will provide a high-quality test deliverable that will include:

- Requirements analysis / software design reviews for testability

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- Test configuration, development and execution on simulated and/or Host/Target environments
- Instrument code and collect coverage data from customer supplied test procedures
- C, C++, Ada, and Assembly code test harness and result files
- Statement, Branch, MCDC, Dynamic Data Flow, Interface Coverage
- Formal industry software test documentation and concise test reports
- Requirements and dynamic code coverage reports
- Status, test metrics, productivity and problem/defect reports
- Preparation of a fully certifiable test delivery

Unlike traditional "Testing" houses, ENSCO can utilize 300+ engineers who are experienced with all phases of safety critical software development, including requirements, design, code, test, structural coverage, traceability, quality and configuration management.



**Key Benefits of Using ENSCO:**

- Proven expert in the industry with the satisfied customer base to back our experience
- Fully equipped and secure facilities and network infrastructure
- Large and flexible staffing solutions that address the verification life-cycle schedule challenges
- Verification life-cycle Subject Matter Expertise for safety critical software
- Latest Project Management tools - earned value tracking, cost, productivity, and schedule performance metrics
- Flexibility to conform to your internal tools & processes, utilize our own or some variation to meet your testing requirements
- Full Quality Assurance and Configuration Management
- Competitive pricing

Sample Unit Test Projects	Certification Specification
JSF F-35 Electronic Unit	SEAL-1 (DO-178B, Level A)
JSF F-35 MFD Application Code	SEAL-1 (DO-178B, Level A)
JSF F-35 MCDU	SEAL-1 (DO-178B, Level A)
A380 Trent 900 FADEC	RTCA DO-178B, Level A
CXPX Application Code	RTCA DO-178B, Level A
FJ44-X FADEC	RTCA DO-178B, Level A
Bell BA-609 Control Unit	RTCA DO-178B, Level A
GenX FADEC	RTCA DO-178B, Level A
JSF F-35 Graphics Driver	SEAL-1 (DO-178B, Level A)
C-17 Flight Control Unit	RTCA DO-178B, Level A
V-22 Flight Control Unit	RTCA DO-178B, Level A
CF34 FADEC	RTCA DO-178B, Level A
ASG System Controller	RTCA DO-178B, Level A
CFM-56 Engine Control Unit	RTCA DO-178B, Level A

**For more information, please contact:**

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