Navy SBIR/STTR Success

Tools for Rapid Insertion or Adaptation of Combat System Capabilities

"Testing is becoming the most time consuming and costly phase of delivering capability to the Fleet. ATRT addresses this need and has consistently demonstrated productivity improvement of greater than 75%."

- Bernie Gauf, President and CEO, Innovative Defense Technologies

Topic Number: N05-163

SBIR Investment:
$2,338,947

Phase II Investment (non-SBIR funds):
$1,829,393

Phase III Revenue:
$26,795,765

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About the Technology:

A substantial improvement in the practices and tools for testing software is needed to keep up with the growing complexity of Navy software systems. The cost and delivery schedule for new capabilities to be delivered to the Fleet cannot be attained simply by writing software faster. Enter ATRT. Automated Test and Re-Test (ATRT) is a non-invasive, model-based and scriptless approach to automated testing which fully supports the rigorous test process used during the verification and validation of the Navy's software systems. ATRT provides a methodology and comprehensive suite of products designed for component testing, integration testing and certification of the Navy's combat systems and large mission critical applications.

Naval Benefit

ATRT dramatically accelerates test execution and reporting time while also expanding test coverage and test complexity. It has been shown to provide repeatable, consistent objective quality evidence while reducing the amount of time and cost spent on software testing. With an average reduction in the time and manpower of greater than 75% compared to current test processes, ATRT is a key enabler for the Navy to more rapidly field combat system capabilities. Documented, objective quality evidence is reported including traceability from requirements to test cases and test steps along with comprehensive pass/fail results. In the event of any failed test steps, ATRT provides the capability to easily reproduce the problem.

Transition

The Navy has leveraged the advances in testing provided by ATRT across NAVSEA, NAVAIR, and SPAWAR. ATRT has been utilized on more than 25 projects now including AEGIS, LCS, Joint Mission Planning System, and the Va Class Submarine Program. In support of these programs, automated stress tests, endurance tests, functional tests, interface tests and post test analysis have been successfully developed and delivered. In addition to continuing efforts with these programs, some of the new ATRT projects recently started include support for BMD, Machinery Control Systems, Link-16, and NAVSSI.

Innovative Defense Technologies

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