



Spider Software Engineering Support Laboratory

The Spider Software Engineering Support Laboratory (SESL) provides Program Manager Close Combat Systems (PM CCS) together with the Armament Software Engineering Center (Armament SEC), the capability to organically support the system software for Spider Networked Munition System (NMS).



The Spider NMS will preserve an essential military capability to provide force protection and shape the land battlefield and all but eliminate the risk associated with persistent anti-personnel landmines. Spider consists of three hardware components: (1) Remote Control Station (RCS) which consists of the Remote Control Unit (RCU) and the RCU Transceiver (RCUT) providing a computer interface for operator control and alerts the operator of intrusions; (2) Repeater for extended communications; and (3) Munition Control Units (MCUs) each of which can contain up to six individual Miniature Grenade Launchers (MGLs) or Munition Adapter Modules (MAM's). The deployed MCUs can send alerts to and receive commands from the RCS.

The lab is comprised of five Dell PC workstations, two Panasonic Tough-books and some Dell PC laptops, which are used for running FBCB2 emulators, Spider component emulators, and/or Spider control station prototypes. In addition, the lab has two tactical FBCB2 systems setup for verifying Spider Obstacle Reports and interoperability as new SW versions are released. Permanent Spider Tactical equipment will be routed to the lab as they become available from various test sites or production runs. Currently, we have two MCUT (Munition Control Unit Trainers), one RCUT, and three Tacter 31Ms each configured for various SW baselines. This allows for capability to test/diagnose issues that result during development and training. The lab also has GPS capability and the equipment necessary to run over-the-air tests through hardwire cables in order to prevent radio frequency interference/saturation. The lab has ample lockable storage for both hardware and documentation. The lab uses a state-of-the-art Biometric Retina Scan access security system for identification and verification.



Currently, the lab is supporting key lifecycle acquisition tests, including Army Interoperable Certification (AIC) dry-run testing activities, Department of Defense Information Assurance Certification and Accreditation Process (DIACAP) testing, and Operational Test (OT) troubleshooting testing. The lab also acts as a platform to do various RCU code inspections, troubleshooting, testing prototype devices and concepts, and code work specifically with the Spider interoperability interface.

Capability now exists to support RCU production/testing through the Tacter 31M cloning station giving the ability to repair/refresh tactical or test unit's RCU SW baseline, providing PM CCS with the option to have RCUs serviced at Picatinny defraying costs associated with shipping to contractor locations.

Future support includes acquiring the necessary tooling and hardware to reload software for the RCUT and MCUs that have sterilized due to testing as well as capability to support the embedded system SW (MCU, RCUT, Repeater, MGL) organically.

Point of Contact

Armament SEC Business Planning and Development
ArmamentSEC@conus.army.mil
<http://www.ardec.army.mil/armamentsec>

(973) 724-2732 (ASEC)
DSN 880-2732 (ASEC)