

## Biometrics Software Engineering Laboratory

The Armament Research Development and Engineering Center (ARDEC) Armament Software Engineering Center (Armament SEC) provides software development, software evaluations and software life cycle management support for biometric systems. As the Department of Defense (DoD) moves forward with the employment of biometric technologies, ARDEC is well positioned to assist, having identified biometrics as a critical tool for perimeter defense and weapon systems employed in the Overseas Contingency Operations (OCO). A critical preliminary step in the application of biometric systems to controlled access points, communications, computer systems, and countermeasure platforms is the establishment of the **Biometrics Software Engineering Laboratory (BSEL)**. The BSEL supports external customers in exercising software engineering best practices based at ARDEC, Picatinny Arsenal. The goal of the BSEL is to provide superior software engineering support in collaboration with industry, academia, DoD, Department of Homeland Security (DHS) and other Government agencies for research, consulting and informational, and integration services.

The BSEL provides the following competencies including, but not limited to:

- Biometric technology subject matter expertise focused in software engineering verification and validation
- Provides software support environment for evaluating and developing software-intensive Biometric systems
- Capability Maturity Model Integration (CMMI) Level 5 process expertise in support of full range of DoD Research & Engineering / Science & Technology activities
- Human subject evaluation expertise and Institutional Review Board (IRB) oversight necessary for evaluations involving human subjects
- Feasibility and technology readiness software studies for biometric authentication systems
- Expertise in software activities that include areas such as requirements, design, integration, validation, fielding, maintenance and program acquisition support
- Cradle to Grave Software Life Cycle Management

The BSEL has previously completed software evaluations of Biometric Technology Demonstrations (BTDs) for the DoD Biometric Identity Management Agency (BIMA). These emerging technologies software are independently validated and verified within the BSEL. ARDEC uses their software expertise to conduct work with customers to gather and prioritize requirements, generate program documentation, generate software engineering documentation, develop and test prototype software and utilize software engineering best practices and software validation tools to meet program requirements and functionality.



### Point of Contact

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