Towed Artillery Digitization Systems

CHALLENGE

Decilog supports a Government-led Integrated Product Development Team (IPDT) tasked to digitize the M777 (155mm) and M119 (105mm) towed howitzers. One key challenge was the development of a common system/software architecture that addressed the key differences between the two systems. Decilog provides system and software-level requirements definitions as well as system and software integration testing.

APPROACH

Decilog provides expertise for the development of a common architecture using the following approach:
- ▶ Study of an existing fire control software system (Mortar Fire Control System – MFCS) to determine the scope of requirements and software which formed the core of the common fire control system.
- ▶ Analysis of the requirements and software from the M109A6 Paladin Self-Propelled Howitzer to insure common mission requirements are handled in a similar manner to reduce training costs and impact.

The following architectural areas were identified as key for commonality:
- ▶ communication standards and protocols,
- ▶ computation of fire control solutions based on ballistic data, and
- ▶ the Soldier Machine Interface (SMI).

BENEFITS

By providing expertise and experience for the M777 and M119 digitized towed howitzers, Decilog helps to ensure that high quality and safe products are deployed to meet the needs of our warfighters.

RESULTS

The M777 project office has successfully fielded multiple releases with increasing system capabilities. Each of these releases has been completed on-time and has passed Army interoperability testing with zero defects. The digitized M119 towed howitzer program is currently on schedule for release.