

SLATE: Collaborative Tools for Tactical Teams

PROGRAM DESCRIPTION

SLATE is a context-rich wireless collaboration tool for distributed tactical teams (MIO/SOF/DHS/HADR). It supports both synchronous and asynchronous communication of text and spatial information, activity coordination, and information management. Any mission document, image, or map is imported easily into SLATE and shared immediately as a canvas. Canvases become a shared context for annotations, text, drag/drop symbols, and drag/drop file attachments.

OPERATIONAL GAP

Current field-ready tools support voice and chat but fail to support spatial information or embed it within mission documents where it can be understood effectively. Shared whiteboards are messy and offer no support for asynchronous communication among field units. Common Operational Picture (COP) systems tend to be bulky, high bandwidth systems that are appropriate for command centers but not for communication with and among field elements.

VALUE TO THE WARFIGHTER

SLATE supports collaborative activities more effectively than current mobile technologies. SLATE provides better comprehension and more effective communication by allowing warfighters to import, share, and collaboratively annotate mission documents, images, and maps. SLATE manages messages for faster interruption recovery and a cleaner common operational picture. SLATE offers a streamlined interface for nonverbal, secure, wireless field use.

APPROACH

SLATE binds annotations, text, symbols, and embedded files into message-objects. These bindings support message review and situation awareness recovery across interruptions. Older messages can be decluttered from view to simplify the picture, but remain available for after-action review. Special attention is paid to human factors to streamline the interface for field use. SLATE runs on a variety of platforms including Windows PC laptops and tablets and Android-based mobile devices. It is interoperable with cell phones, and it communicates using TCP/IP and XML over open or secure wireless networks.

ACCOMPLISHMENTS

SLATE is a field-ready prototype (TRL 4) that has been shown to improve spatial communication, interruption recovery, and team coordination in Trident Warrior 2008/2010. SLATE also participated with the Naval Postgraduate School, Center for Network Innovation and Experimentation in maritime interdiction operations research (Fall/Winter 2010, TRL 4).



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