

Systematic reveals Frontline battle management software

Giles Ebbutt

Systematic has revealed its new Frontline battle management software ahead of its official launch at the Defence & Security Systems Equipment International (DSEi) exhibition in London in September. The software is currently undergoing trials and the final stages of its development.

Frontline is designed for use at the tactical level and has been developed as a replacement for the current Battle Management software within Systematic's Sitaware command-and-control software suite. It retains the previous Planning-Execution-Reporting workflow structure, but adds improved installation, maintenance and training capabilities. According to Hans Bohibro, Systematic's product director for the Sitaware suite, the company is working on integration with Steel Beasts, the tactical simulation and training software.

The user interface is centred on the map, with an improved human-machine interface principally designed for use with soft keys and a touchscreen, although hard keys and peripherals can be used. Functions are accessed through a hierarchy of keys. Different map options are available, including satellite imagery, plus the 'chip and ship' capability from the Sitaware HQ system, which enables a portion of a map to be transferred into Frontline. Standard APP-6B/Mil-Std-2525 symbology is used. Plans and overlays are transmitted by sending a link to the addressees, who then download the information when required, thus reducing spikes in network loading, according to Bohibro.

The software has been constructed in two parts: a vehicle application and a user application. The vehicle application can be integrated with communications equipment, weapon systems, onboard sensors and vehicle management systems. The user application provides all the Frontline applications and the user configuration software, and can be run entirely independently of a particular vehicle's installation. It can be carried on a memory stick from which it can also be run, enabling a user to move from vehicle to vehicle without the need to install the software and remaining independent of a particular set of hardware.

Frontline is hardware agnostic and, according to Andrew Graham, Systematic's head of defence sales, the company is currently experimenting with different devices to establish parameters such as minimum practicable screen size.

It is intended that compatibility will be maintained between different versions of the vehicle and user applications, enabling the latter to be updated more frequently; Bohibro quoted periods of 24 and six months respectively. Compatibility will also be maintained between at least two versions of the vehicle application, negating the need for an entire vehicle fleet to be upgraded at once.

The system has been optimised for low-bandwidth tactical communications with high friendly-force-tracking refresh rates. No point-to-point contracts are required for information exchange and no end-to-end network routing is needed. Both IP and non-IP communications can be employed and different types of radio can be used in the same vehicle.

Frontline will also be provided with an extensive software development kit. The open architecture will enable extensions to be added to accommodate new vehicles, communications or sensors. Future developments are likely to include a version for dismounted commanders.



Systematic Frontline hosted on a Roda Panther DR8-M tablet, showing a graphic overlay on satellite imagery and the soft function keys. (Copyright © Systematic) 1357000