

InView

A New VIEWPOINT

U.S. Air Force uses 4DX technology for Unified Engagement wargaming

THE UNIFIED ENGAGEMENT WARGAMES ARE A BIENNIAL event where joint military services look 12-15 years into the future to determine if existing concepts and capabilities will meet the warfighter's anticipated needs, or if new technologies must be developed. For the most recent Unified Engagement (UE) games in November 2006, more than 300 military and civilians from five countries gathered at Schofield Barracks, Hawaii. The Air Forces' Modeling and Simulation Branch: Concepts, Strategy & Wargaming Division (A5XS) showcased ViewPoint 4DX, a wargame visualization and analysis suite that integrates a variety of cutting-edge tools, including STK. AGI's 4DX Embedded Technology was used for the intuitive user interface. ViewPoint 4DX integrates space order-of-battle; defines airborne orbits with a simple point-and-click; combines air and space sensor coverage analysis; and more.

To facilitate event preparation, planners need an easily adaptable software tool to accommodate evolving objectives. "What we have built in ViewPoint 4DX is a superb foundation that gives us flexibility to accommodate almost any direction or type of inquiry the wargame might move into," says Lt Col William Power, chief of the A5XS Modeling & Simulation Branch. Ease-of-use is another essential requirement of wargaming technology. "ViewPoint 4DX has a simple interface, which is extremely important when you have 300-plus players. They don't have time to spend a week training to operate the tools. It is extremely valuable for participants to sit down, have the software be familiar, and then rapidly adapt and become productive. That's what we have found with this AGI software-based tool," says Power.



The A5XS' UE '06 marching orders were to create an environment for intelligence, surveillance, and reconnaissance (ISR) planning that represents surface-to-space capabilities in one common operating picture (COP). "STK brings integrated air and space already; I would say that it is becoming the reference standard for visualization of complex, moving things with superb quality analysis tools built-in," Power says. Furthermore, ViewPoint 4DX needed to track and display the wargame's more than 75,000 objects, which was resolved using STK's Multiple Tracking Object (MTO) capability that allows users to pick out individual icons for data drill-down. The exercise also required that the COP include mixed space and ISR coverage. STK's Aircraft Mission Modeler capability enabled operators to easily define all airborne ISR tests, and automate orbits with the click of a mouse.

ViewPoint 4DX users can access a robust set of NGA and custom maps, imagery, and overlays; integrate graphics and shapefiles of almost any format; view intelligence identifiers and predefined zones; turn on and off ISR data and sensor coverage; export the scenario into PowerPoint; or record videos to share with management.

"Progress is the bottom line, and what we did in UE '06 was expose hundreds of joint warfighters to a rich information environment unlike anything they had ever seen. AGI software completely fit the bill," Power says.

Learn more about UE '06 by downloading Lt Col Power's presentation from the 2007 AGI User Exchange at www.agi.com/ux. ▲

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