

# **Ares Battlespace Visualization Tool**



The Ares battlespace visualization tool provides commanders, mission planners, combat support, and forward combatant units a user-defined common operating picture while using flexible and lightweight visualization approaches to improve decision making. The tool facilitates distributed interactive events in support of collaborative training, mission planning/rehearsal, briefings, command and control exercises, and after-action reviews.

### **Product Overview**

- The Ares battlefield visualization tool provides a 2D or 3D interactive rendering of the area of interest, including fusion of geospatial data, terrain models, unit positions, movement orders, and battlespace support assets. It also integrates with Army's Nett Warrior integrated Soldier system. By combining all of this and more into a single interactive visual tool, the user's knowledge of the battlefield is significantly enhanced.
- Available configurations include:

#### 1. <u>Floor Projection</u>

- ☐ Displays maps, operational graphics, and battlespace information onto the floor surface to create a 2D virtual sand table. The size of this modality is only constrained by the size of the floor.
- ☐ The floor projector can display on the fly line of sight maps for tactical planning.
- ☐ The floor map can be used in conjunction with an HTC Wand and flat panel display to visualize a 3D model of what is displayed on the floor. The 3D view can also display above surface assets such as aviation units.
- ☐ This product is ideal for terrain teams, platoon leaders and higher echelons, mission planning, training, asset tracking, and AAR's.
- ☐ The major components include a flat panel display, two projectors (baseline), projectable floor surface, server computer, and an android tablet for the tactical planner application.



#### 2. Sand Table

- ☐ A traditional sand table allows for rapid updates and changes to visualize the changing battlespace. Ideal for training schools, Officer and NCO academies, ranges, and commands.
- ☐ Currently being used to teach and discuss concepts such as land navigation, terrain model construction, briefing Operations Orders (OPORDs), and planning missions.
- ☐ The major components include flat panel display, projector, table, sand, depth sensor, server computer, and android tablet for the tactical planner application.



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## **Product Overview (Continued)**

- 3. Mobile Android Device Tactical Planner
  - ☐ The Tactical Planner application utilizes android enabled mobile platforms and is the primary interface used with Ares.
  - ☐ Tactical Planner is both the primary input device for Ares and able to be operated independently for stand alone or remote collaboration.
  - ☐ This product is ideal for forward deployed squad level units and echelons above, S-shop staff, terrain teams, SOF teams, mission planning, training, and quartermaster units for asset tracking.



- 4. Mixed Reality (MR) Helmet Mounted Display (HMD)
  - ☐ Ares is MR HMD vendor agnostic. It uses VR to enable individual or team collaboration, both locally and remotely using the virtual command center.
  - ☐ AR can also be used to augment the physical sand table and floor projection experience by overlaying information which allows for layers shown at a height that is above the physical surface.
  - ☐ Ideal for field commanders at the platoon level and echelons above, terrain teams, SOF units, mission planners, convoy commanders, aviation units, and armored and mechanized units.
- Current users of the Ares battlespace visualization tool include Ft Polk & Operations Group JRTC, 101<sup>st</sup> Airborne Division, Ft Benning, Ft Rucker, West Point Academy and Department of Homeland Security.



### **Products and Services Available**

- Dignitas Technologies offers engineering services to modify or create additional capabilities and features. Some recommended product baselines are listed below, but the tool is fully customizable for mission needs and requirements.
  - ☐ Command and Control: Configuration 1,2, & 3.

□ SOF: Configuration 1, 3 & 4.

☐ Terrain/MIL Intel: Configuration 1 & 4.

☐ Academic: Configuration 1 & 2.

• All Products come with the required software which is free for Government purposes. Architecture is extensible via a Software Development kit (SDK) and Application Programming Interfaces (APIs) allowing third-party developers to add models, applications, and integrate new features to support the needs of current and future collaborators.

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