DIGITAL SANDTABLE

Advanced Terrain Visualisation
AGIL™
Digital Sandtable

AGIL™ is our unique design and development approach for our Digital Sandtable, unifying emerging technology and experiential thinking to support scenario planning and training applications such as wargaming exercises and live exercise monitoring and control.

As a touch-based interactive device with an accessible tabletop user interface, the Digital Sandtable provides full visualisation of terrain using 2D map navigation and a correlated fly-around 3D view display.

Enabling users to freely place units, draw on virtual overlays and view activities as they happen over a sequence of milestones, the Digital Sandtable also integrates with external systems to receive streaming data on units.
Touchtable UI
100% touch-based user interface designed especially for a table format. Intuitive pan, zoom and rotate controls for map navigation. Familiar touch gestures of tapping, holding and dragging of panels and units.

Tools and Visualisation
Distance measurement, location labelling, freeform drawing, placement of units, marking of obstacles, visualising the terrain with 3D and optional VR view, including 3D model renders of building structures.

Wargaming Functionality
Placement of modifiable symbols for units, marking of obstacles, setting routes for unit movement, associating positions and movements with specific milestones, then viewing of activities over the sequence of milestones.

Content Flexibility
Range of options for terrain and surface content source e.g. user-furnished data of bitmap images, shapefiles and 3D models with georeferencing, for import into the Digital Sandtable dataset.
Tabletop User Interface

2D Map Navigation
with touch interactivity
on an accessible table top

**Top Panel**
Consists of zoom level, map scale, compass for determination of scale and direction, and options to lock rotation, pan & zoom for enhanced user experience.

**Left Panel**
For addition of non-intrusive virtual overlays — units and their routes, obstacles, annotations and buildings — on the 2D map and 3D display to facilitate planning and training.

**Right Panel**
For viewing of activities over milestones of deployment or movement plans saved at various points in time with different placement of units, events and obstacles.

**Customisable Moving Toolbar**
For easy access to frequently used one-tap tools e.g. 3D fly-around controls, satellite or street map view, group selection of units, instructor’s pointer, address search, distance measurement and freeform drawing.

**3D Fly-Around Controls**
- 360° perspective of terrain
- 360° perspective of 3D model renders
Immersive Visualisations

Virtual Drop-in View (Optional)
with virtual teleportation in VR

First-Person View
Visualise the terrain in first-person view virtually “on the ground”. Selection of position on 2D Map for drop-in of position on default surface i.e. ground level, or at plot height i.e. top of building.

To-Scale Replication in Virtual World
Immersive walkthrough of terrain or 3D model of designated building to identify potential obstructions and challenges in planning and monitoring exercises.

3D View Display
with controllable fly-around perspective

Polyhedral Buildings
For surveillance of virtual terrain to identify potential obstructions in planning and training exercises.

Visualisation of Entity Positions
Markers in 3D show the position of entities on terrain, around or even within the buildings.

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Enter Plot Mode
With user-furnished detailed 3D model data, user can enter plot mode for both 2D Map and 3D views of selected plot at higher zoom level.

3D Data Import
3D data for plots can be converted from CAD or BIM sources and imported into the dataset of the Digital Sandtable.

Slicing Controls
Allows horizontal sectioning of building for quick floorplan and vertical sectioning for perspective view on concealed inner structures.