Synthetic Environment Solutions

*Dignitas Technologies **synthetic environment** solutions represent computer simulation activities at a high level of realism and allows visualization of and immersion into the environment being simulated. It includes natural environment representations related to weather and terrain and human-made environment representations such as structures like buildings, tunnels, bridges and roads. It also includes psychological environment representations that influence individuals and/or groups based on demography and other cultural factors.*

Natural Environments

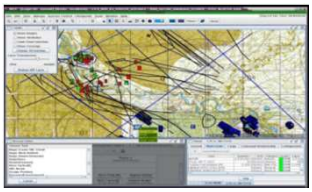
- Geographic Information System (GIS) modeling and geospatial terrain database generation which effectively relates seemingly unrelated data and helps individuals and organizations better understand spatial patterns and relationships.
- Dynamic Terrain: Represents high resolution terrain changes, distribution of terrain changes and soil attribution.
- Weather Conditions and Effects: Global weather state modeled and distributed (i.e. precipitation, temp, wind, fog).


Human-made Environments

- Above Ground: Includes representations for civilian infrastructure components such as traffic control, power, and communications.
- Underground: Models structures such as subways, sewer systems, and other underground elements which frequently affect operations in urban and asymmetric warfare.


Psychological Environments

- Computer Generated Forces (CGF) and Pattern of Life (PoL) behavioral modeling.
- Crowd and vehicle traffic modeling that represent typical activities of urban life.




Visualization & 3D Models

- Veritas Tool: Provides a 2D/3D visualization capability of simulation events based on DIS or SE Core's VDIS network traffic.
- 3D Models: Includes 3D visual models of characters, weapons, vehicle shells/interiors, environments and objects.

Product/Services Available

- OneSAF and JLCCTC program management, design, integration (i.e. ERC, MCS) and extension development.
- Terrain database (SE Core and other formats) integration and testing with constructive simulations.
- PoL urban simulation (Vulgus) to include crowd and traffic modeling and effects.
- Licensed Mundus Software Development Kit (SDK) to integrate with simulation/game engine plug-ins and development of additional dynamic terrain and weather effects to meet customer needs.
- Cerberus, a server-based application that provides current and future simulation systems the functionality to support underground environments.

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