



M&S Terrain Generation

U.S. ARMY CORPS OF ENGINEERS

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Description

The Joint Experimentation, Test, and Simulation Lab (JETS Lab) of the U.S. Army Geospatial Center (AGC) generates quick turn-around niche Modeling & Simulation (M&S) terrain products to support training, experimentation, testing, research and analysis.

Correlated Terrain

The JETS Lab generates correlated M&S terrain that allows easy integration with other M&S as well as operational Geographic Information System (GIS) databases. Correlated M&S terrain allows Soldiers to incorporate M&S into military training events to better support training, operational planning, and rehearsals.



Products

The JETS Lab tailors its products to match specific customer requirements, with as many exported formats as necessary. Typical JETS Lab product formats include: Compact Terrain Data Base (CTDB) for Joint Semi-Automated Forces (JSAF) and OneSAF Test Bed (OTB); OneSAF Terrain Format (OTF) for OneSAF; SEDRIS transmittal format (STF) for Synthetic Environment Data Representation and Interchange Specification (SEDRIS); Dynamic Terrain Database (DTDB) for Dynamic Terrain Simulator (DTSim); OpenScene GDE for JStealth and OpenFlight/OpenFlight for Visual and PBO for Virtual Battlespace 2 (VBS2.) Additionally, the JETS Lab also generates 3D models of weapons system platforms in Open Flight (.flt), 3DObjects (.obj), and 3DSMax (.3ds) formats and building models in Ultra-High Resolution Building (UHRB) and Multi-Elevation Structure (MES) formats.

Source Data

JETS lab engineers use standard GIS data sources such as the AGC, National Geospatial-Intelligence Agency and U.S. Geological Survey, Terrain Scenario Generation & Archiving, the Naval Oceanographic Office and other sources to create their products. In cases where there is insufficient source data, the JETS Lab has the capability to create hand-intensified geo-specific and/or geo-typical GIS data.

Process

JETS lab engineers use industry standard tools (both COTS and GOTS) including the S1000 compile environment, TerraSims TerraTools, Presagis TerraVista (with 20 node Multi-Machine Build (MMB), Maya, Creator, 3D Studio Max, Urban Underground Model Generator (U2MG), Photoshop, and the GNU Image Manipulation Program (GIMP) to produce correlated terrain products. They also manage, maintain, audit, and edit geospatial data to ensure it aligns with the customers' needs by leveraging ESRI ArcGIS both for data manipulation and storage (maintaining an ESRI SDE Enterprise level Geo-database), Global Mapper, and other industry standard GIS tools.

Point of Contact

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