Federated Co-Production is a robust geospatial data processing system that combines disparate data sources to produce a variety of output formats. Uploaded content such as terrain elevation, imagery, and full motion video to be processed through a series of workflow steps using an orchestration system and microservice architecture.



Problem:

- Geospatial data production, especially with 3D content, historically required highly specialized skills and expensive COTS software.
- Different formats make it difficult to incorporate data from multiple sources reducing effective use for SOF operations.

Our Solution:

- Enabling geospatial data shopping, configuration management, and federating data across organizations such as SOCOM, NGA, and commercial data providers like Maxar.
- A Modular Open Systems Approach (MOSA) framework encourages software from many vendors to work together, to provide the best-of-breed geospatial data processing tools. It does this through the implementation of a software orchestration process that can automatically route data through processes from many vendors.

Federated Co-Production -- Enterprise Geospatial Data Processing - Phase III SBIR

Features:

- Data federation includes data quality analysis, aggregation, and conflation of data from multiple sources, configuration management, and metadata.
- Support for many different source and export formats that can be custom built for target platforms currently in use by the warfighter, such as the Tactical Awareness Kit (TAK) products.
- Can conflate/fuse multiple data types (e.g. imagery, elevation, and drone photos) into new products for use in simulation, AR/VR/Gaming, mission rehearsal, and more.
- Automatically converts, transforms, and formats new data (both 2D and 3D) to a new data product, which may be CDB, 3D Tiles, OBJ, as well as game engine formats like FBX.

Partners & Customers

- USSOCOM
- NGA
- CAE
- Leidos
- Dignitas
- ARA
- nitas A
- Manifold Analytics
- Trenchant Analytics

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