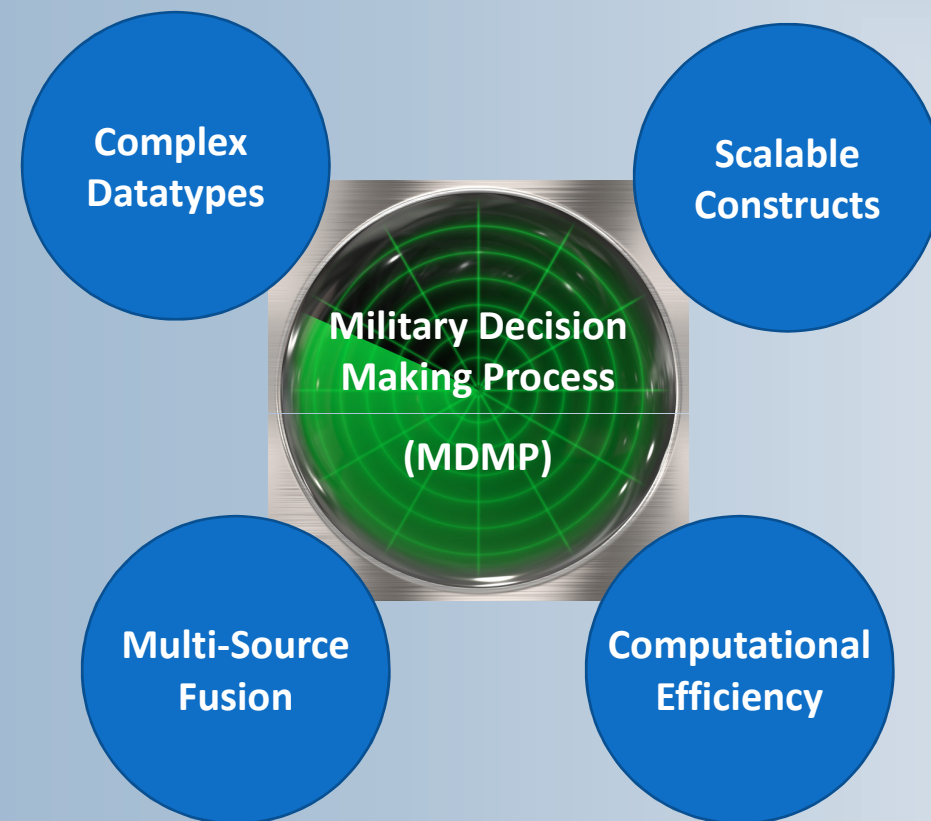
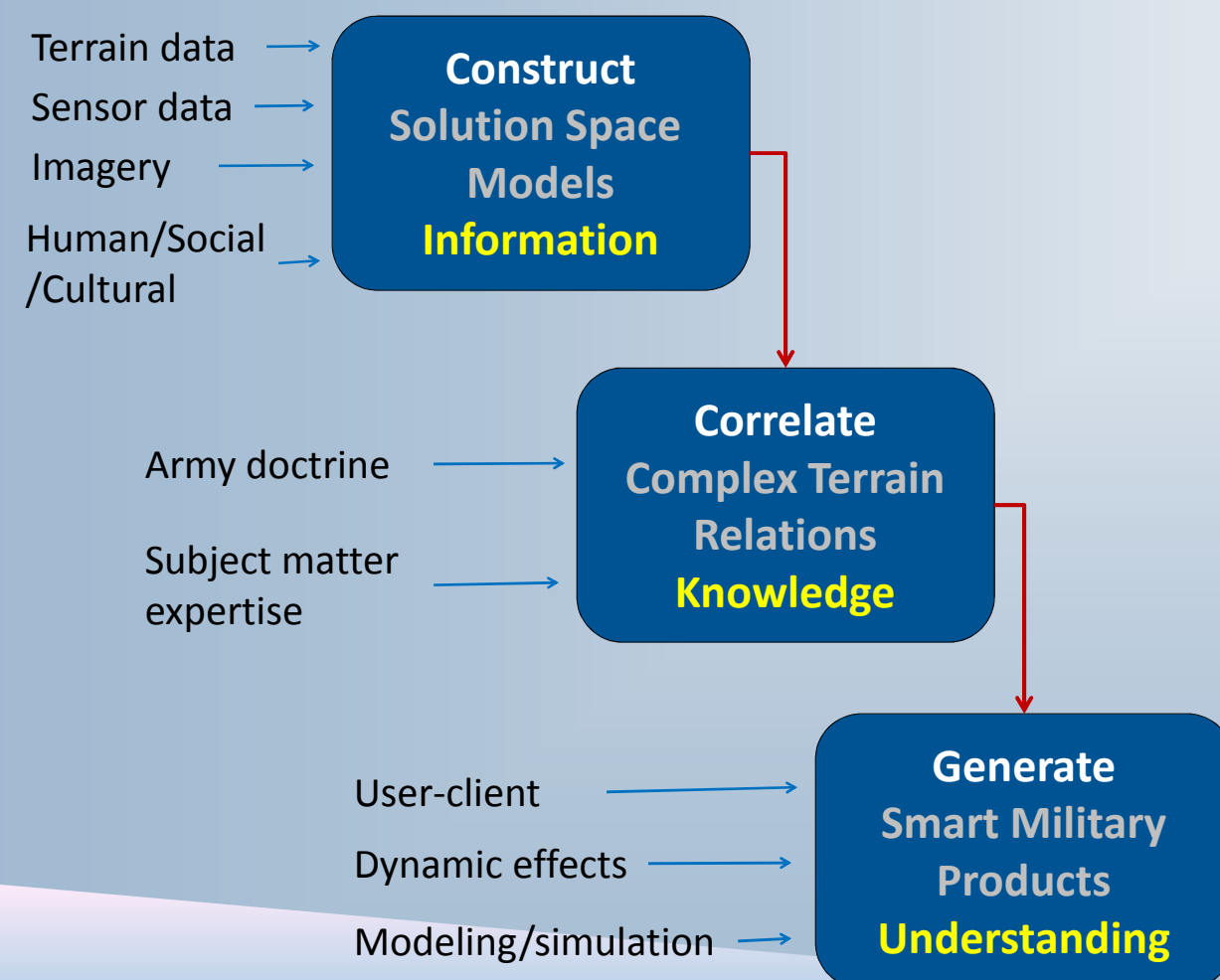


EMERGING MDMP CHALLENGES

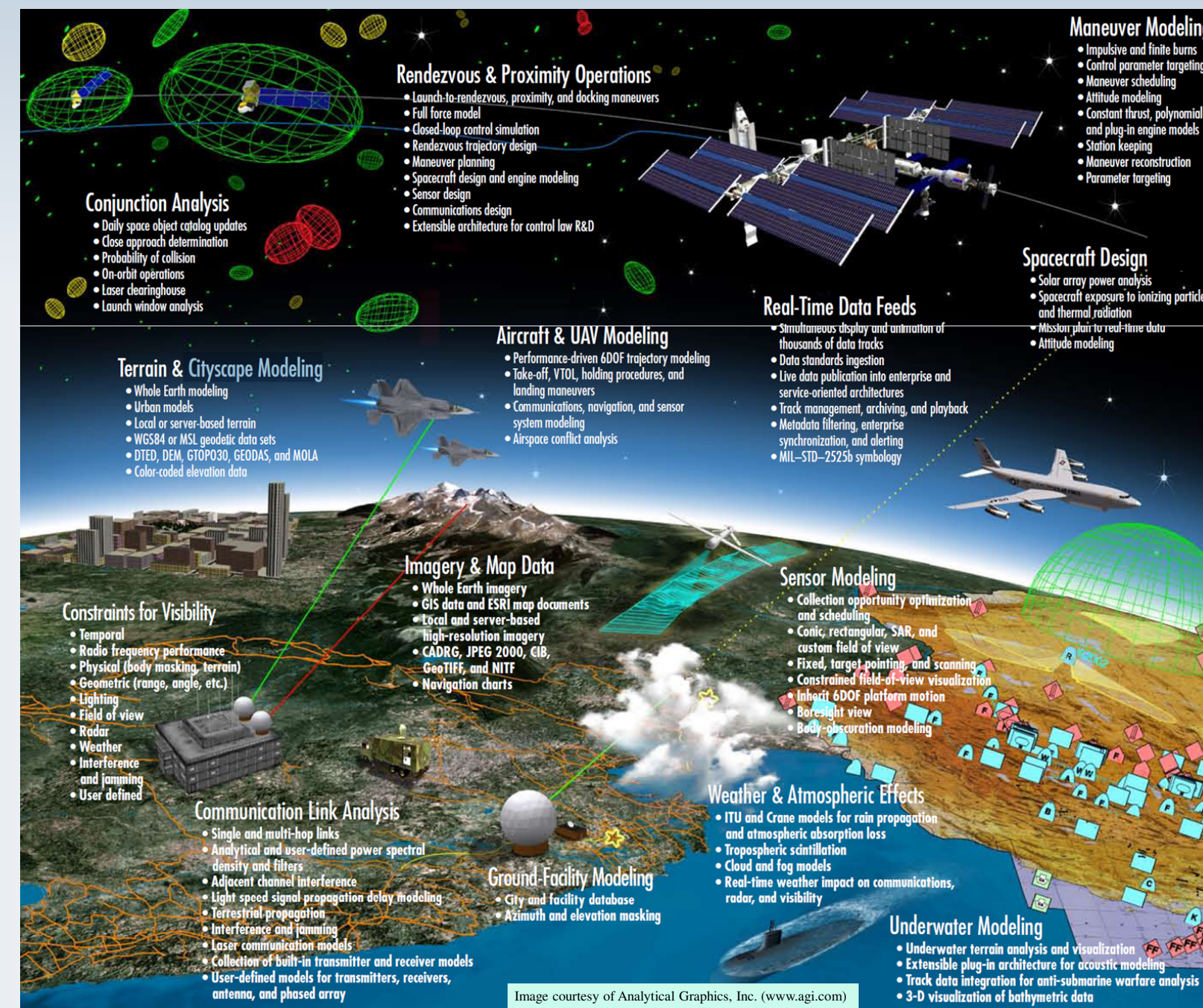


Success in the modern digital Battlefield depends highly upon the efficient management of data. Military operations are inherently complex, requiring varied systems to interoperate within the data solution space of a specified mission. Information needs may arise under intense time pressure, and the available information is often incomplete or uncertain. Data entities vary widely in format, scale and resolution, and can exhibit a great deal of heterogeneity.

VALUE-ADDED PROCESS

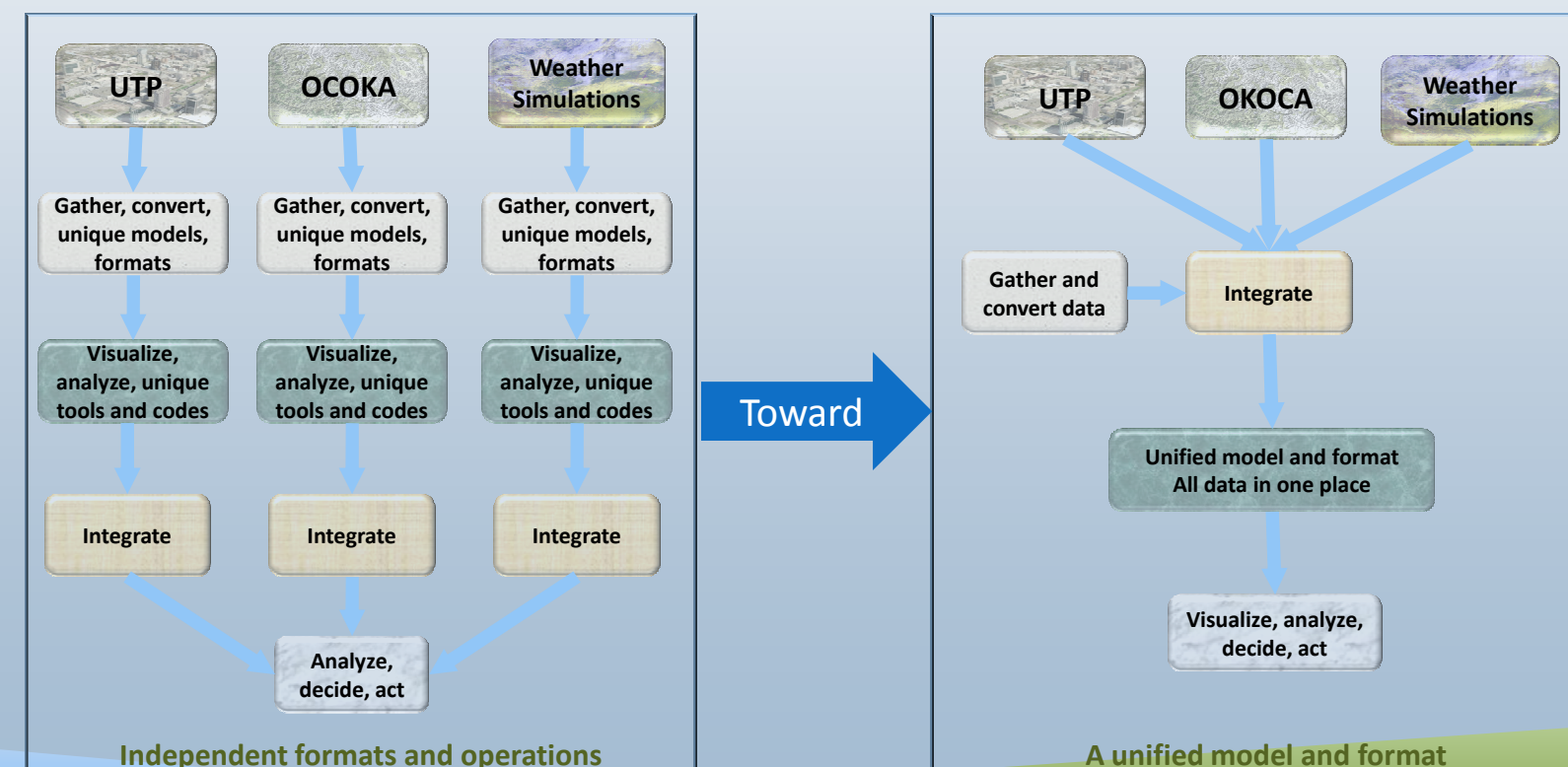


GEOCOMPUTATIONAL BATTLESPACE



HDF5 SOLUTION - A UNIFIED DATA REPRESENTATION

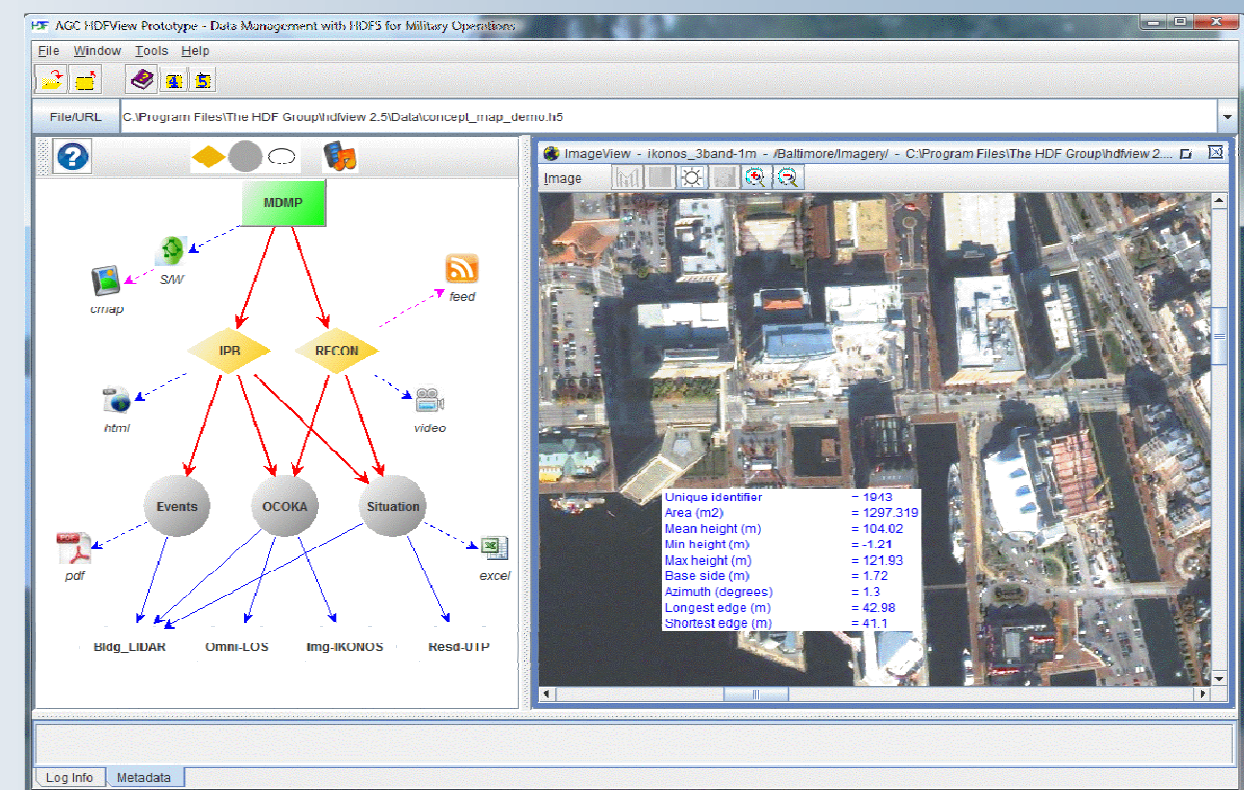
- Identify the problem domain and provide the analytic framework
- Enable complex geospatial operations in HDF
 - Concept Maps to Data Structures
 - Organizational Levels to Hierarchical Structures



POTENTIAL BENEFITS TO THE ARMY

- Give Warfighters near real-time access to the Battlefield dataspace.
- Enable a superior knowledge of the Battlespace through enhanced data fusion capabilities.
- Provide Warfighters a robust, High Performance Computing enabled data management capability.
- Make information architecture integration more cost effective through an Open Systems development strategy.

CONCEPT MAP - HDFVIEW PLUGIN



FUTURE WORK AREAS

- Provide a transition path from traditional geospatial formats and methods to emerging Geoscientific practices exploiting HDF5.
- Develop a model to sufficiently address the Spatio-Temporal dimensional component of the Battlespace.
- Apply a unified data approach to the strategic areas of Joint Operating Environments, Preparation of the Battlefield, Geo-Informatics, and Enterprise Command Services.
- Explore the geospatial data services and applications capabilities of Web 2.0 to leverage HDF5 research efforts..

ACKNOWLEDGMENTS

This project is sponsored by the US Army Corps of Engineers, Engineer Research and Development Center - Geospatial Research and Engineering Division located in Alexandria, VA.

RELATED WEBSITES

<http://www.agc.army.mil/>
<http://www.hdfgroup.org/>