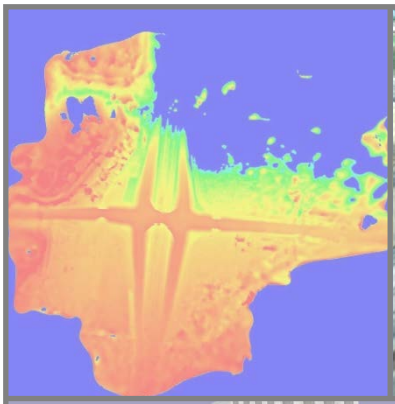

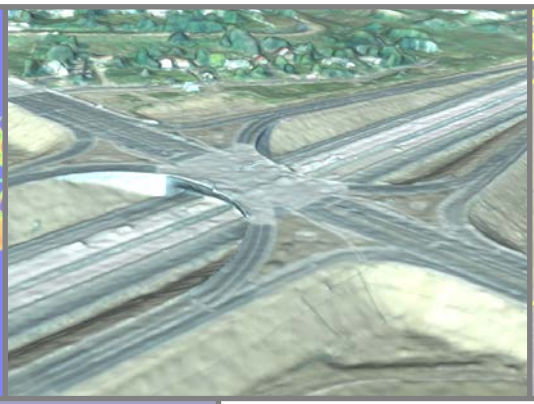

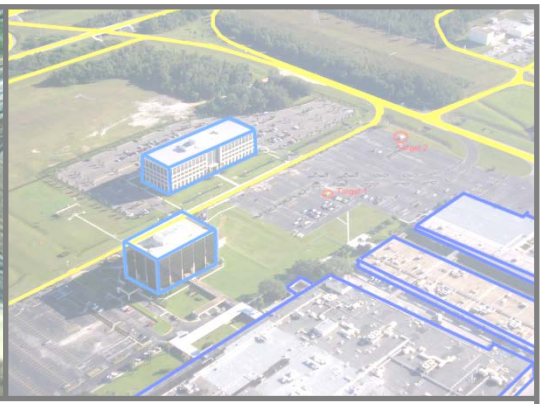

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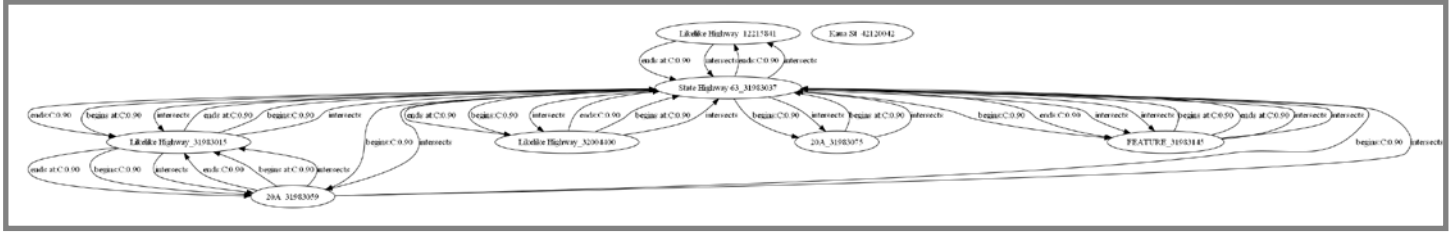


Cognitics, Inc. | 947 E Winding Creek Dr. Suite 200 | Eagle, Idaho 83616 | 208-904-3780 | www.cognitics.net

Leadership Statement

Cognitics is a technology research and development firm focused on designing and developing cutting edge products for the simulation and geospatial information industries. We understand the critical importance of accurate and timely intelligence information for both government and commercial entities.

We strive to add value through the following objectives:

- Bringing higher fidelity to synthetic environments.
- Reducing costs through automation of manual data processing.
- Reducing delivery time of sensor data into usable intelligence.
- Improving user experience and effectiveness.
- Easing integration through adaptable and flexible architectures.

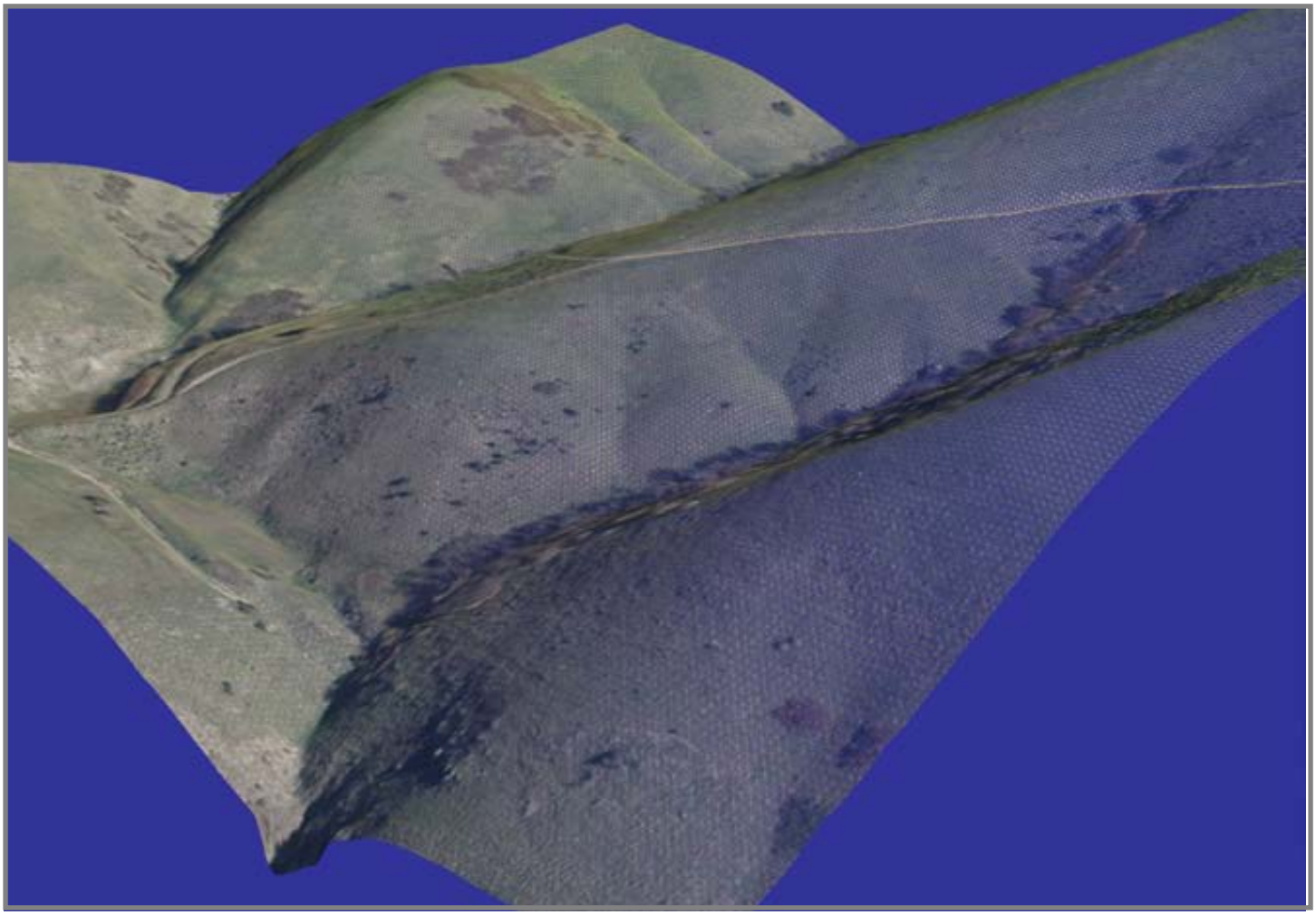
Core Competencies

Our expertise lies in software design and development, geospatial data processing, artificial intelligence, and embedded systems development.

Synthetic Terrain and Model Generation

Cognitics software allows 3D virtual environments that correlate to real-world environments to be created using data from multiple sources. This can include aerial and satellite imagery, digital elevation models, LiDAR, data from CAD software, and more. Using pre-existing data sources allows the virtual environment generation to be created in a highly automated manner, reducing the cost of generating scenarios for each site. The created environments closely correlate to the real world, which allows for more effective simulation and training.

Beyond training, there are many applications for a 3D virtual environment. Highly detailed radio propagation can be performed with these models. Measurements in 3D including distance, area, and volume are also possible.



Simulation Systems

Using a combination of proprietary Cognitics software libraries and open-source libraries developed for the US Navy, Cognitics can quickly prototype high quality simulation systems. Using our database generation tools, we can rapidly produce "geo-specific" terrain models of real-world areas including the ground characteristics and structures with a high degree of realism. We can then place a user inside this simulated environment with the ability to fly around freely, or inside a vehicle that follows the physical limitations of that vehicle. By integrating with real-time information from other sources (such as a GPS feed over a wireless network), we can show vehicles moving along a path in the simulated terrain. This has application in training, safety, and monitoring of real-world environments.

Feature Extraction

Software capabilities capable of extracting information about natural earth and cultural features from aerial and satellite imagery is a critical part of intelligence, mission planning and rehearsal, and simulation activities. Automated feature extraction capabilities can greatly reduce the cost and increase the timeliness of the work flow for these activities. Cognitics has extensive expertise in computer vision and feature extraction. One example of this is a shoreline detection project Cognitics performed for the US Navy in 2014.

Mission rehearsal, simulation, and training in coastal areas often require accurate representation of shoreline data. Many sources exist for hyperspectral imagery as well as classification data for land, water, and snow. However, these data sources are usually only available at a much lower resolution than the visible light imagery for the same area.

While satellite imagery is commonly available, digital elevation model (DEM) data is not commonly available at a comparable resolution, and is not updated nearly as frequently as space-based image products. While lower resolution terrain is often adequate for representing the general shape of the surface, coastal and shoreline features are not well-defined in the low resolution terrain. The low resolution DEM data does not provide enough detail to accurately simulate the transition between ground and water for mission rehearsal and training.

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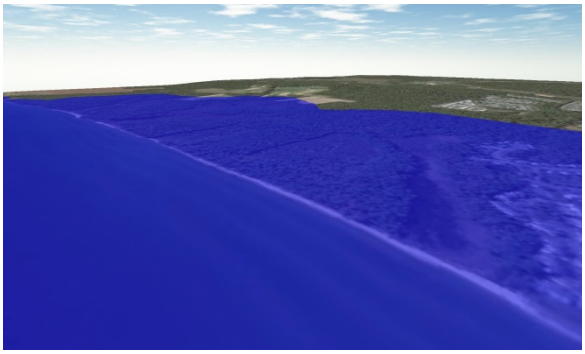
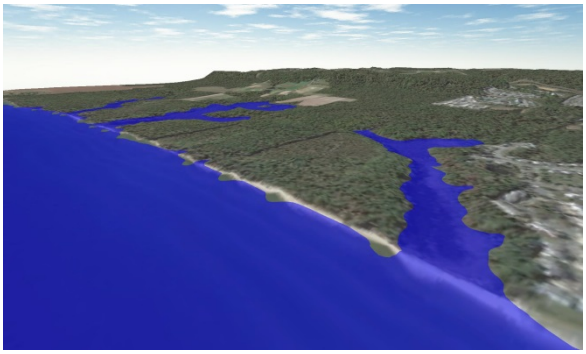


Original 10-meter National Elevation Dataset (NED) elevation data with inaccurate coastline elevation



Enhanced 30 meter DTED elevation data produced by Cognitics Synthetic Elevation tools

Partners / Customers

Cognitics works directly with the US government as a prime contractor, and also works with large and small primes as a subcontractor. Additionally, we work in the private sector with large and small businesses, enhancing the research and development capabilities of our customers and technology partners through our expertise and software libraries. Below are just some of the customers and partners we work with.

- Leidos
- SAIC
- CAE USA
- Presagis
- Lockheed Martin
- Modular Mining Systems
- Dignitas Technologies
- Renaissance Sciences Corporation
- Diamond Visionics

Company Profile

Cognitics, Inc. is an Idaho Corporation formed in early 2008 by a group of experienced software development professionals. Specializing in applied research, Cognitics has developed extensive software libraries and tools that are currently in use by the US Army, Navy, and commercially for processing satellite images by Lockheed Martin.

Cognitics has been awarded several SBIR contracts, including Phase I, Phase II, Phase II enhancements, and Phase III. Our focus is innovation and application of innovative solutions to real world needs.

Kevin Bentley (President)

Mr. Bentley has over 23 years of software development experience. He is responsible for business development and technical research and development for the organization. At Cognitics, he has worked as a software architect and consultant for the Army SE Core DVED project, providing software design, development, and support services for the Master Database and Runtime Database Generation Toolset for the project. Previously, he worked for TERREX, where, in addition to R&D work for an Army SE Core BAA, he performed software development for Terra Vista and the Common Database format for SOCOM.

Mr. Bentley has extensive image processing experience. He has developed compression and image filtering algorithms for use in the GIS and simulation industry, covering areas such as high-precision GPS, commercial and open-source GIS tools, and APIs. He has also worked in the 3D video game industry, where he developed software for the game Descent 3 and was the project manager and a developer for the 3D-level editor that shipped with the game. Mr. Bentley has extensive experience developing software on multiple platforms in C/C++, C#, Java, and other languages.

Aaron Brinton (Vice President)

Mr. Brinton served as a nuclear engineer in the United States Navy and is a veteran of Desert Storm. He has over 20 years of experience performing software development and integrating complex information systems. In addition to working with Fortune 500 companies such as Sprint and ADP, he has been involved as a principle and primary software architect in several startups, including companies focused on network services, data mining and reporting, and customer relationship management.

Mr. Brinton has extensive experience developing software for geospatial data management and analysis. This has included architecting and developing cross-platform, standards-compliant libraries for working with feature, coverage, and projection data, relational database libraries for storing and retrieving geospatial data, and tools for testing, analysis, and visualization.

Core Advantage

Cognitics, Inc. is a mature small business and a registered US government contractor. Security is forefront in our operations and we regularly perform security evaluations and inspections of our facility and personnel. We have an advanced time tracking and accounting system in place and our accounting practices and system have been audited and approved by the Defense Contract Audit Agency. We take the projects and intellectual property of our customers very seriously and you can rely on us to treat your projects as we would our own.

We pride ourselves with being on the cutting edge of information processing and artificial intelligence. With innovative leaders and staff, we can design and deliver efficient and effective solutions as well as bring fresh ideas into legacy systems.

Contact Information

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