SOLUTION SHEET

Octave Alto powers mission-critical defence applications

Introduction

Defence forces are inundated with overwhelming amounts of data, which can hinder informed decision-making in oftentimes mission-critical situations. However, by integrating various data sources into a unified view and utilising visual analytics along with intelligent filtering tools, the power of that data is unlocked, and real-time situational awareness can be achieved. The Octave Alto portfolio (formerly Luciad portfolio) is used by militaries around the world to create custom, high-performance, mission-critical geospatial solutions.

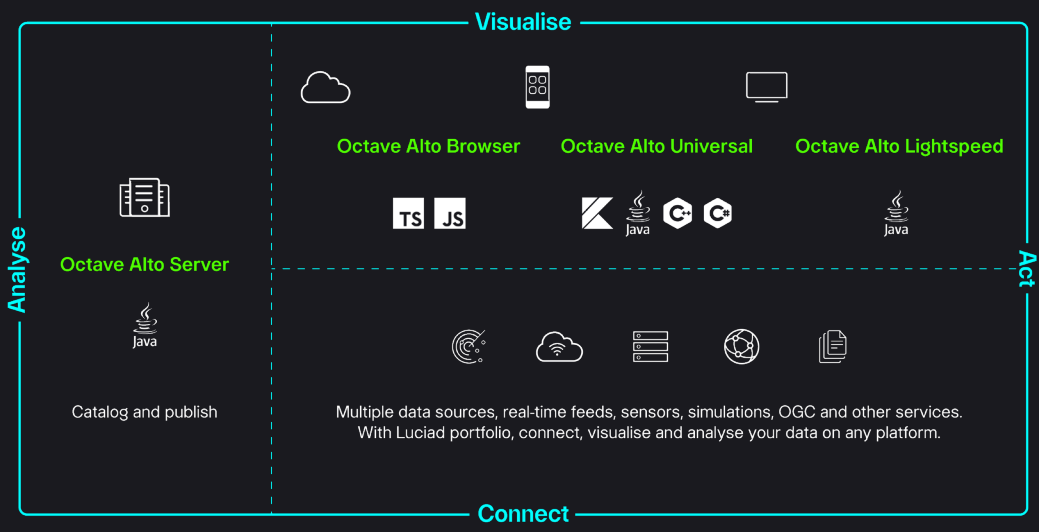
Alto is the most powerful geospatial SDK toolkit available – used to build state-of-the-art solutions for C2, ISR analysis and visualisation, mission/flight planning, aerospace, air defence systems and/or modeling and simulation applications, customised to the end user's needs and expectations.

Connect, visualise, analyse, act

The Alto portfolio connects to any database and more than 200 data formats, including real-time data and domain-specific standards.

Alto presents an intuitive map-centric view accessible on desktop, browser and mobile devices, ensuring crucial information is always within reach, regardless of location. The power of the GPU guarantees performance, while effort on the back end ensures developers have accurate data, ensuring data accuracy, and that data can be visualised in 2D or 3D.

Alto plays a vital role in C2 systems as well as ISR analysis and visualisation. It provides the tools and capabilities needed to connect to, visualise and analyse geospatial data effectively, enabling more informed decision-making and action.



Octave Alto portfolio

Analyse with Octave Alto Server

Octave Alto Server (formerly LuciadFusion) is an all-in-one server solution. Users can manage and publish large volumes of data efficiently to numerous applications.

Key capabilities

- **Real-time engine**
  Connect to, serve, pre-render, convert or relay real-time dynamic data
- **Terrain analysis engine**
  Perform calculations on terrain data, such as LOS or hypsometric calculations
- **Graph and routing engine**
  Exploit the network structure of your geospatial data and make use of algorithms to construct graphs and solve your routing challenges

Visualise with Octave Alto Browser, Octave Alto Lightspeed and Octave Alto Universal

Octave Alto Browser (formerly LuciadRIA), Octave Alto Lightspeed (formerly LuciadLightspeed) and Octave Alto Universal (formerly LuciadCPillar) are client-side APIs. Users can build mission-critical geospatial desktop, web and mobile applications.

Key capabilities

- **Weather and environmental standards**
  Integrate environmental data, and preserve dimensional information
- **Defence standards and symbology**
  Integrate various military data formats for full situational awareness, with full support for tactical graphics of the latest military symbology standards in 2D and 3D, including NATO Vector Graphics
- **Maritime and aviation standards**
  Accurately visualise electronic navigational charts in 2D and 3D and comply with the International Maritime Organization (IMO) and International Hydrographic Organization (IHO)

Alto stands alone in the geospatial market

Adaptability

Easily customise to the specific workflows of an organization

Best-in-class performance

Achieve an unprecedented user experience with hundreds of thousands of track updates per second, on-the-fly line-of-sight (LOS) calculations and real-time data access without pre-processing

Adherence to industry standards

Benefit from full support for symbols and tactical graphics of the latest military symbology standards

Configurability

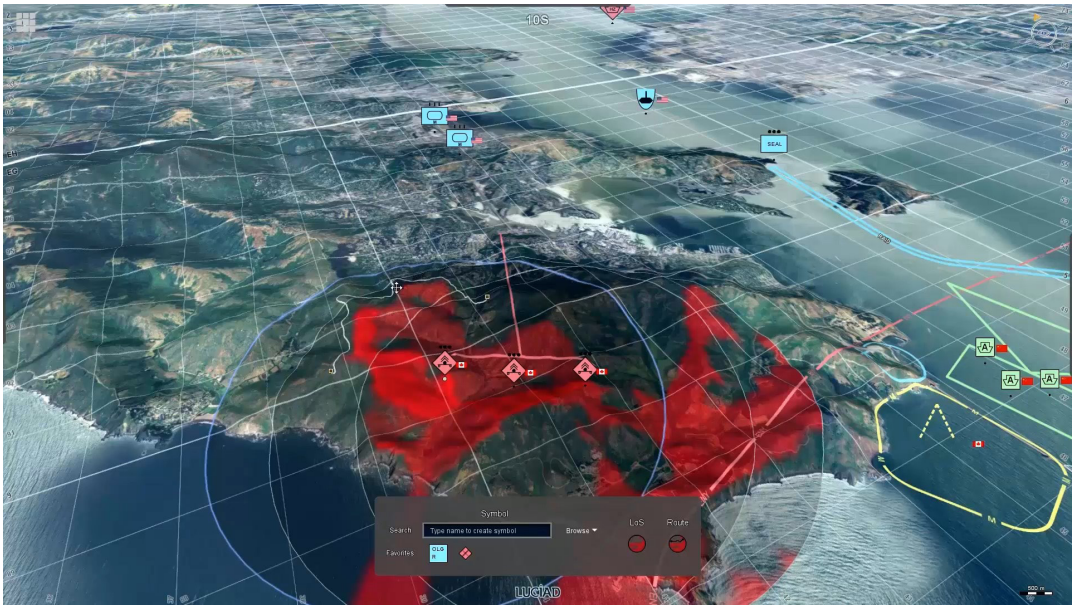
Integrate visualisation, data, styling and UI elements

Out-of-the-box common operating picture

Empower in-theater operators and non-technical users to rapidly share and visualise mission-critical geospatial intelligence

Interoperability, flexibility and scalability

Work with existing software or server in any environment to effectively manage, track and visualise assets, even as the volume of deployed assets increases



About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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More information at octave.com

