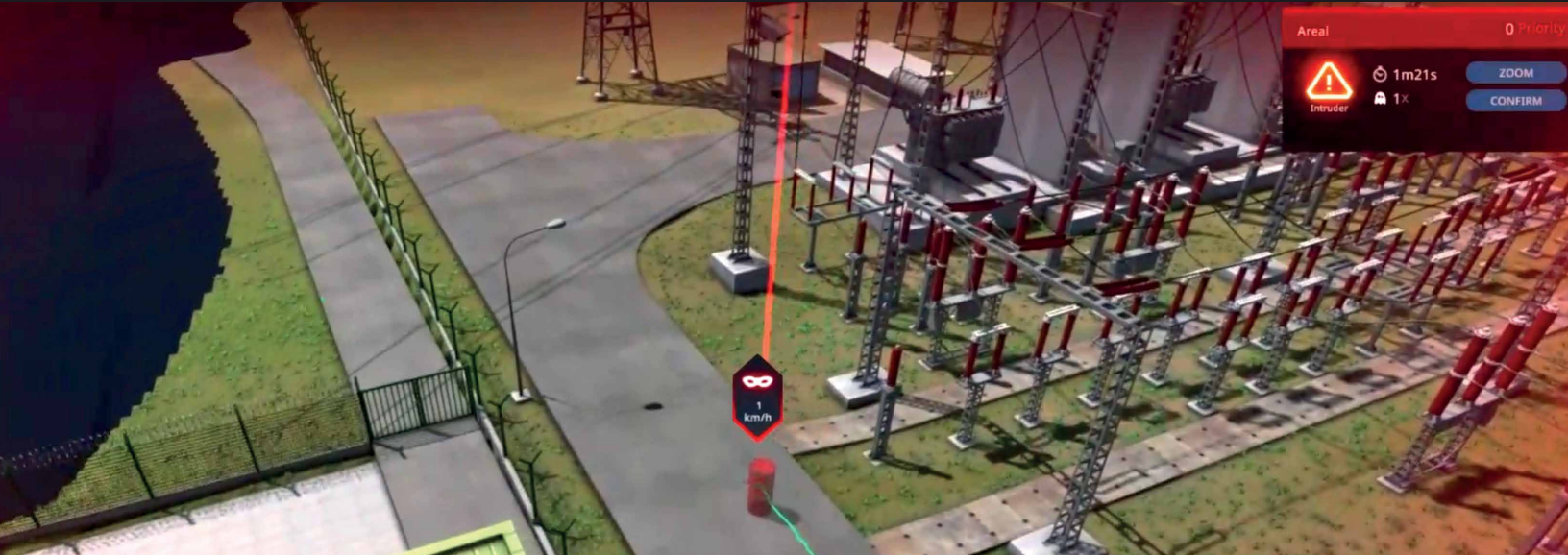




PRODUCT SHEET

Octave Coda Spatial

3D LiDAR surveillance software



What is LiDAR?

LiDAR sensors emit laser pulses and measure the time it takes for the reflected light to return, creating detailed 3D maps of the surrounding environment. This enables the detection, classification and tracking of objects with high accuracy, even in challenging conditions like low light or poor weather.

Leveraging the power of LiDAR and digital twins

In an era of increasing security threats and evolving regulatory requirements, organizations must upgrade their physical security systems to protect people, property and critical assets. This is especially crucial for critical infrastructure such as utilities, mass transit, national rail providers, airports and prisons. A fully integrated security environment that enables seamless detection, assessment and response to incidents is essential.

Octave Coda Spatial (formerly HxGN dC3 LidarVision), is an advanced 3D surveillance solution based on volumetric detection and 3D LiDAR technology.

By leveraging the power of digital twins, Coda Spatial goes beyond traditional perimeter protection to secure entire areas instead of just the fence line. Its seamless integration with other physical security systems ensures fast, targeted responses — making it the ideal solution for organizations where security is paramount.



Coda Spatial uses digital twin technology to create an intuitive and actionable digital representation of reality based on a 3D mesh, BIM data or orthophotos.



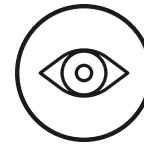
Accurate

Based on high-precision 3D LiDAR technology, which enables centimeter-accurate detection even in poor lighting conditions, Coda Spatial enables extremely reliable detection with a minimal false alarm rate.



Intuitive

Coda Spatial uses digital twin technology to create an intuitive and actionable representation of reality that allows the user to understand a situation in seconds.



Holistic

By combining data from multiple 3D LiDAR sensors, Coda Spatial creates an image of an entire site and enables intruders to be tracked across the whole area instead of just protecting the fence line.



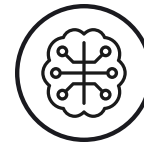
Cost-effective

In contrast to traditional fence security systems, which often require the digging of trenches, LiDAR sensors can be placed on the surface of a building and use existing cabling infrastructure.



GDPR compliant

As LiDAR does not transmit clear images of people or enable identification, the technology is particularly suitable for GDPR-sensitive environments such as public areas.



AI-powered

Octave's DeepTection AI enables the reliable classification of objects on the basis of LiDAR data, creating more advanced situational awareness.

Detection Zones

Coda Spatial allows the creation of highly accurate 3D detection zones with centimeter-level precision.

This enables users to define exact areas of interest for monitoring, as well as exclusion zones where detection should not occur. Beyond basic detection zones, Coda Spatial supports various zone types, including:

- **Pre-alarm zones:** Get early warnings without triggering a full alarm
- **Delayed zones:** Receive alarms only after a set time
- **Loitering zones:** Detect objects remaining in a zone for longer than a specified period
- **Proximity zones:** Identify dangerous proximity between objects
- **Entry zones:** Integrate with access control systems (ACS)

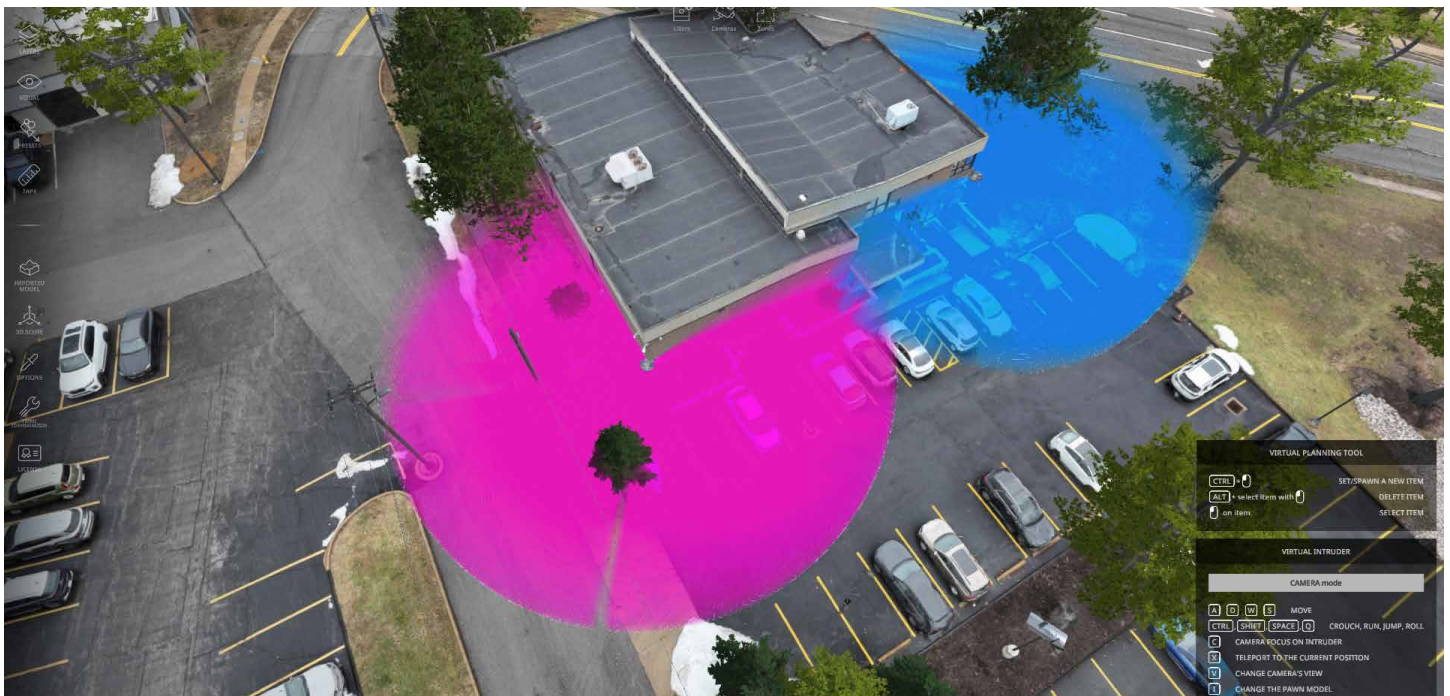
System integration and API support

Coda Spatial is built to integrate seamlessly with other security systems. It features an open API for connecting with video management software (VMS) and physical security information management (PSIM) platforms, enabling streamlined management across multiple systems. In addition to exporting data, Coda Spatial supports the integration of external systems such as perimeter detection, access control and other subsystems.

Octave Coda Designer (formerly HxGN dC3 Designer)

Coda Designer is a powerful design tool for physical security environments that leverages the power of digital twin technology to provide the user with an intuitive and realistic planning experience. Developed for the planning of LiDAR-based surveillance systems, it also offers the possibility of positioning surveillance cameras in a digital representation of physical reality.

Virtual intruders can be introduced into the environment, allowing users to test detection and fine-tune the system before installation. This is especially valuable for large or complex sites, as it provides an immersive, detailed visualization of how the security system will function in real-world scenarios.



Coverage of LiDAR sensors in Octave Coda Designer using an orthophoto map created from a drone flight: the scene shows obstructions by buildings and vegetation.

Packages for every security need

Coda Spatial is available in several product packages. The range of functions can be tailored precisely to the specific requirements of your organization.

Coda Spatial Lite

A mobile app that precisely displays events and objects in a 2D environment; it is also available as a web-based application for easy integration with other security platforms

Coda Spatial Prime

A full-fledged security system offering real-time volumetric detection, 3D visualization and automated camera control

Coda Spatial Eclipse

Prime functionalities and Coda Designer, along with added features like drone control, heat maps, threat level management and people counting

Coda Spatial – part of Octave’s physical security portfolio

Organizations worldwide are increasingly encountering heightened threats and risks due to surges in global crises, trade conflicts, political instability and the consequences of climate change. In response to these challenges, there is a growing need for holistic security concepts that effectively protect people, properties and assets.

To address these challenges, Octave has developed Octave Coda – a unified physical security software portfolio that manages the full incident lifecycle.

Coda solutions supports every phase of a physical security event – from detection and validation to investigation and collaboration – enabling a rapid, appropriate response and minimizing its overall impact.

Coda also leverages the power of Octave’s broader solution portfolio, which contains powerful mapping and visualization capabilities, dispatch and collaboration tools as well as enterprise asset management.

[More information at **octave.com**](#)

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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