

The Threat Engine™: A Multi-Agent System for Context-Aware Remote Sensing and Autonomous Threat Detection



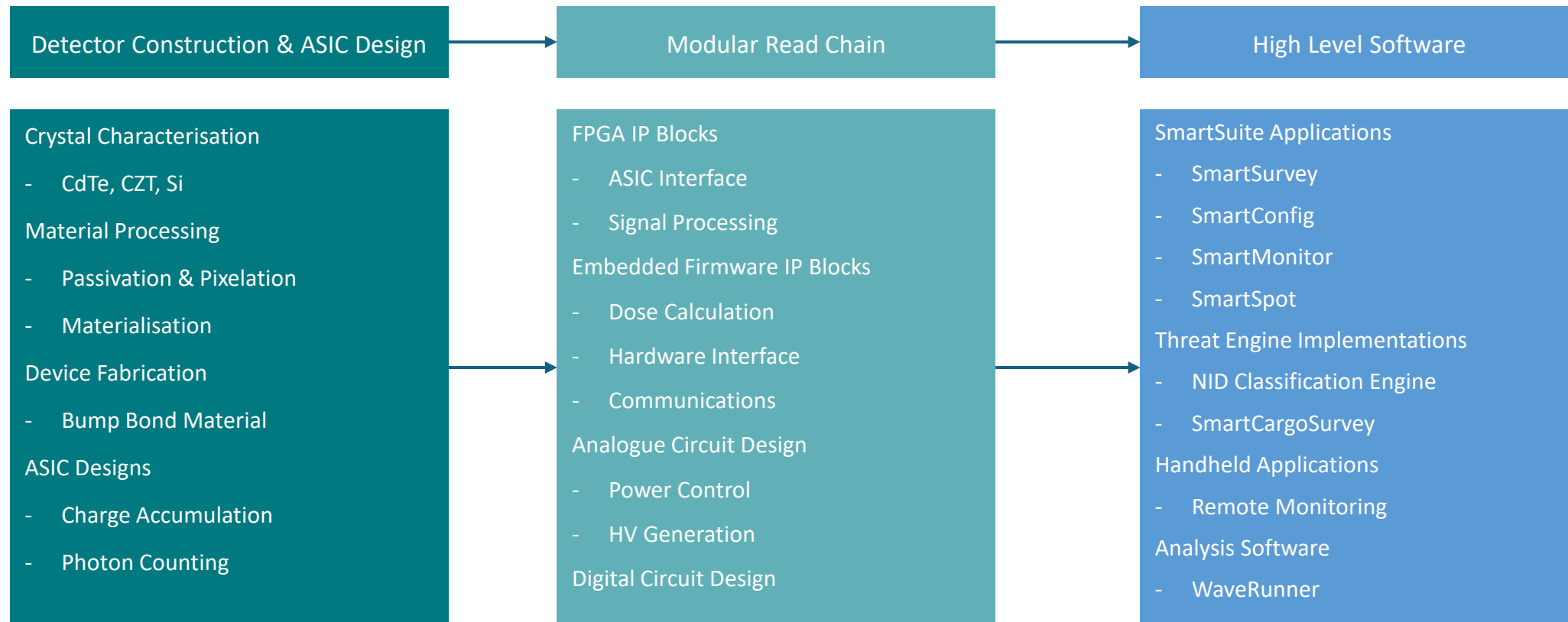
About Us

- Research & Development
- Founded in 2008
- Privately Owned
- Headquarters in the United Kingdom
- Offices in Japan, United States and South Korea





Capabilities





Artificial Intelligence: Radiological & Nuclear Analysis

- Automated Image Processing
- Radiation Signature Recognition
- Anomaly Detection
- Dose Estimation & Modelling
- Spectral Deconvolution
- Predictive Spread Models
- Real-Time Monitoring
- Decision Support Systems
- Automation in Laboratories





Background: Threat Engine™

- Threat Engine™ multi-agent platform with advanced collaboration, learning and **contextual awareness**.
- Data collection- conversion of input data into actionable intelligence.
- Data fusion: Central to the threat engine is data fusions from disparate radiation sources.

Is there a threat?

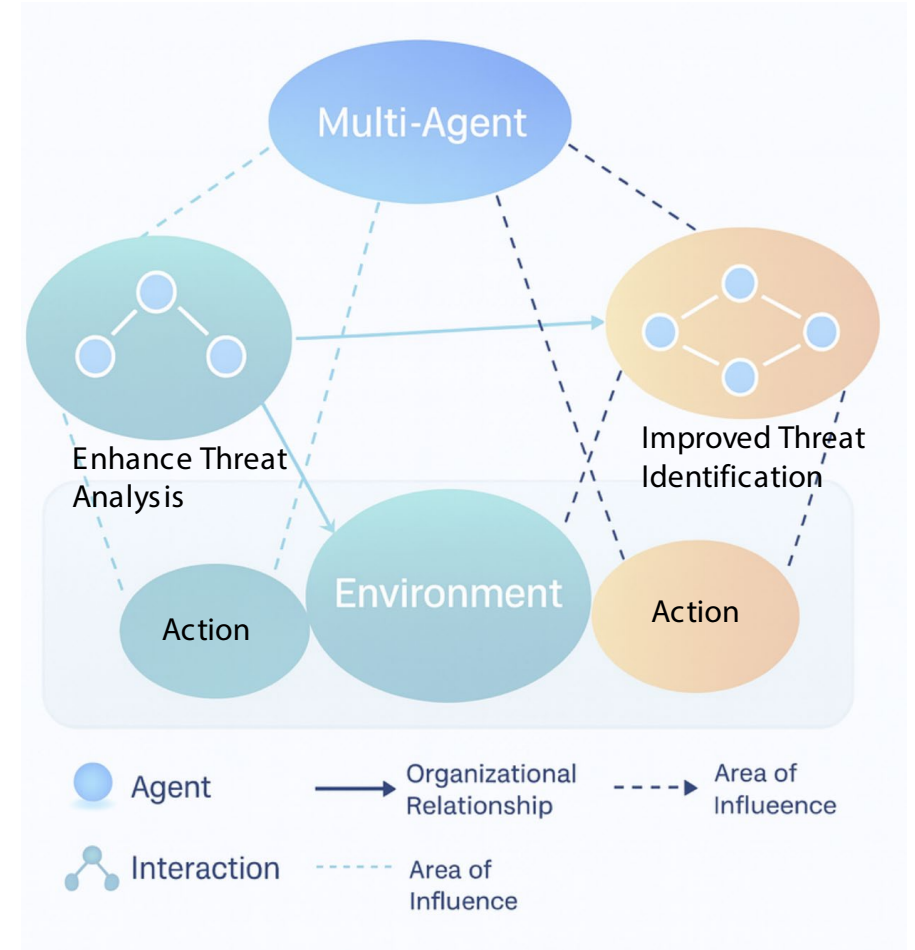
What is the threat?

Where is the threat?



Threat Engine™

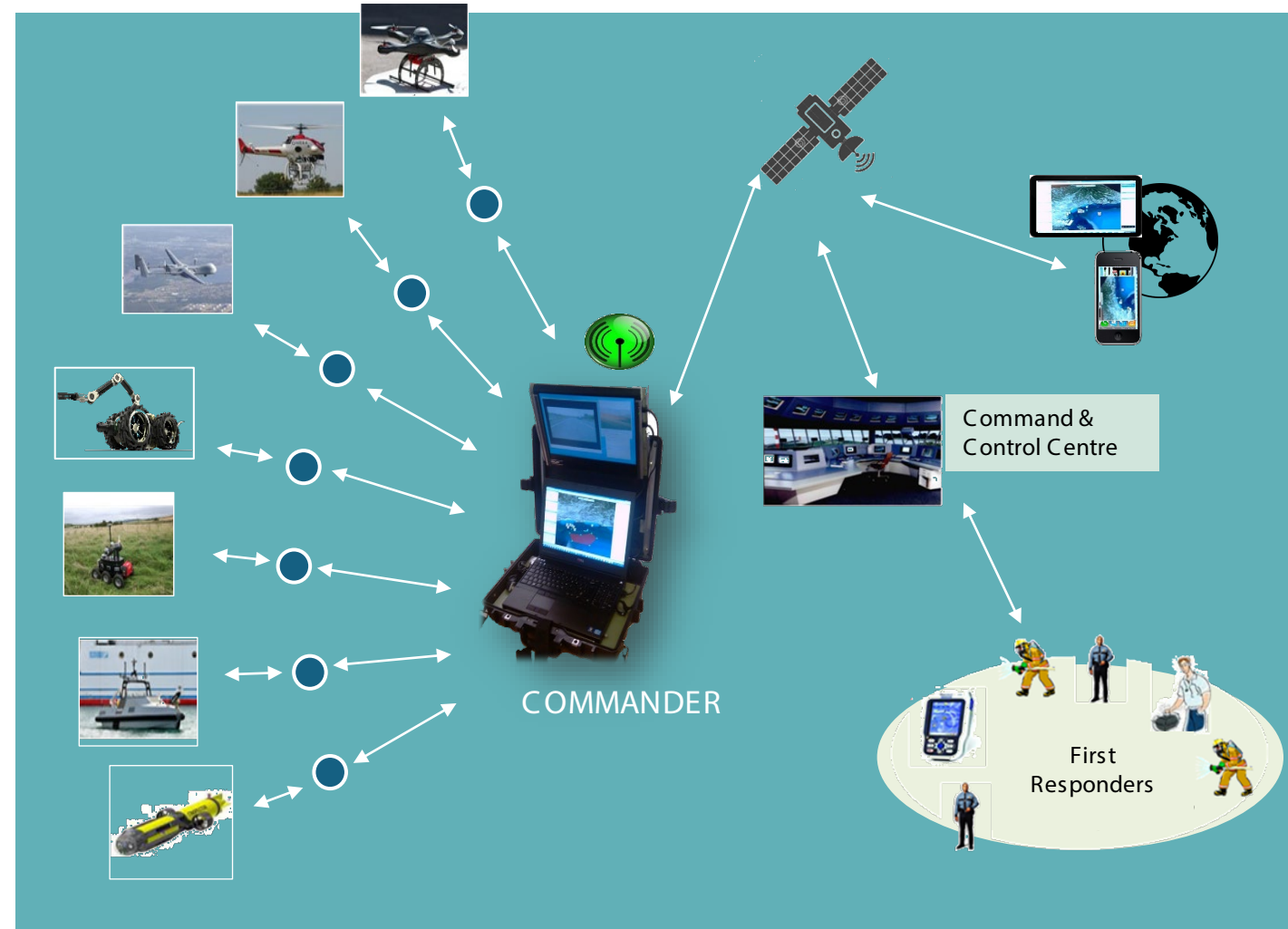
- Leverages Multi-Agent Systems- collaborative & adaptive
- Enhanced Threat Analysis- dynamic understanding of threats
- Improved Threat Identification- enhances threat detection
- Contextual and Dynamic Interpretation- informed decisions





COMMANDER

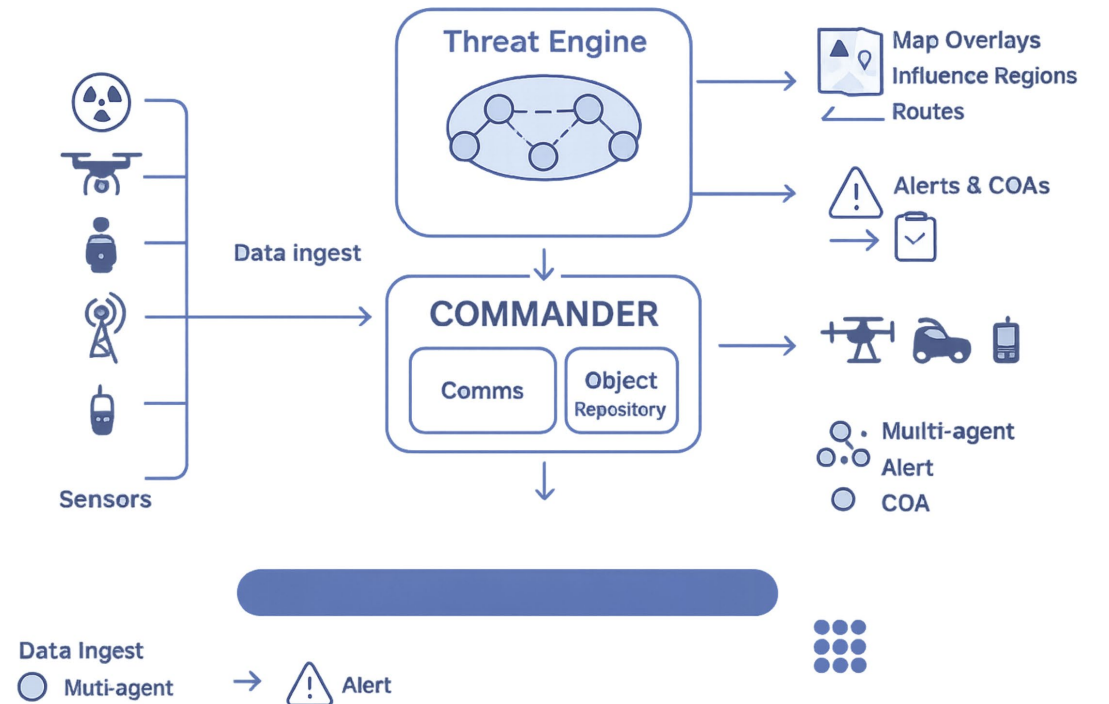
- COMMANDER PC/Laptop and software
- Radiation Signature Recognition
- Battery or external electric power supply
- Localised wireless communication network (e.g. WiMAX) and satellite communication posts
- Unmanned/manned vehicles and platforms
- Sensors e.g. Chemical, Biological, Radiological, Nuclear, Explosive, Visual, EMF etc.





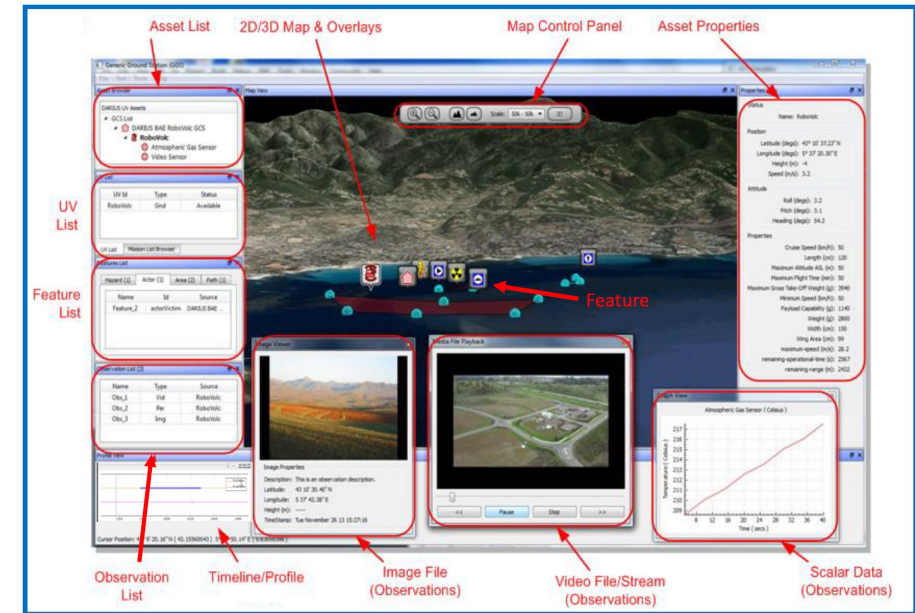
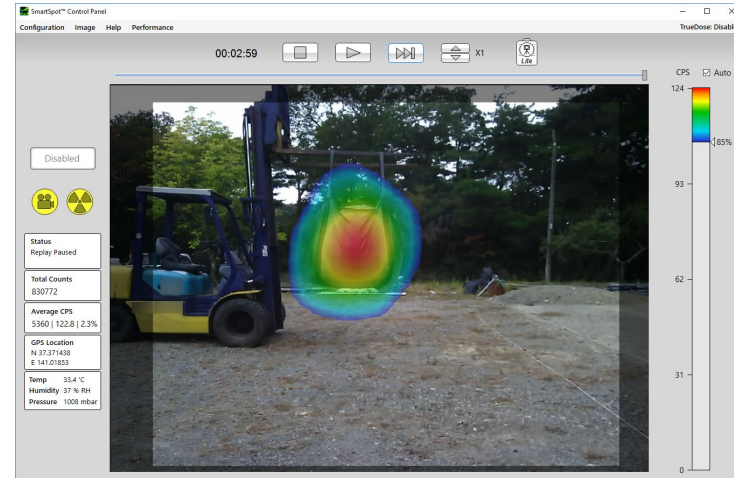
Threat Engine & COMMANDER

- Fuse sensors → threat object & regions
- Ranked alerts & COA (course of action) via multi-agent reasoning.
- Overlays and tasking inside Commander.
- Preparedness → response → recovery





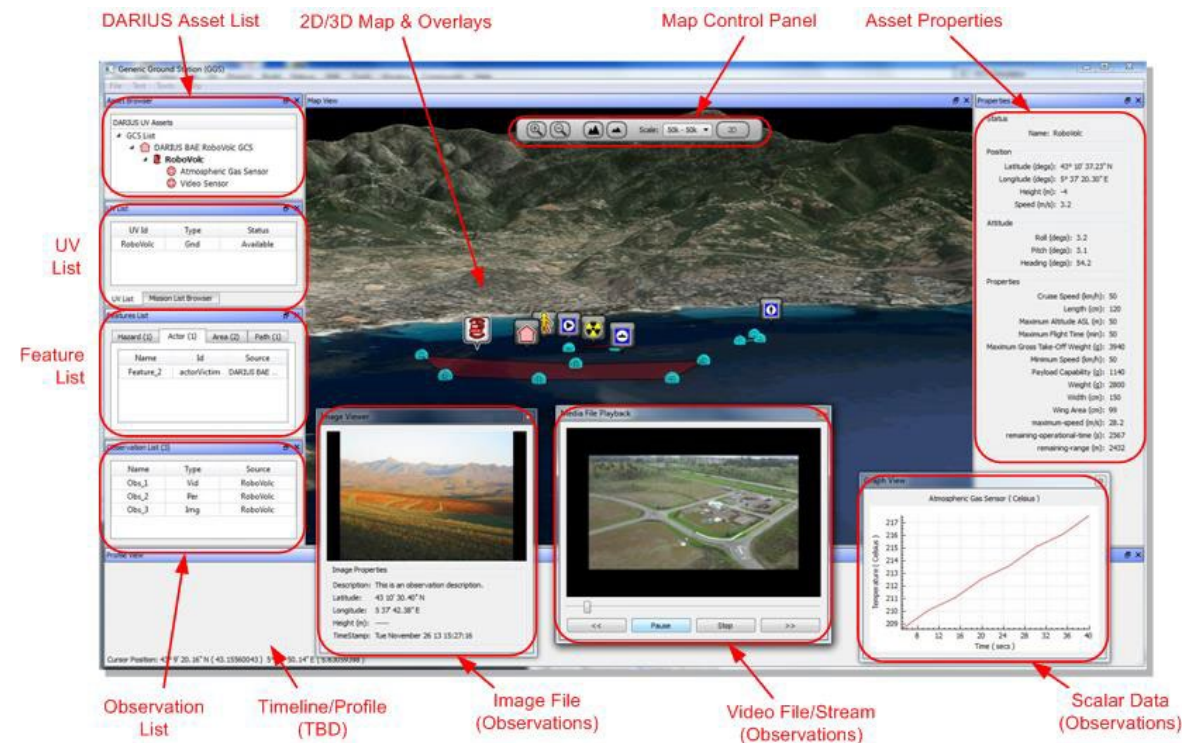
Threat Engine: Example Deployment





Threat Engine

- Multi-agent Threat Engine: sense → understand → decide
- Fuses multi-sensor telemetry into Threat Objects & Influence Regions
- Produces ranked alerts & COAs with confidence & evidence trail
- COMMANDER shows overlays and enables one-click tasking
- End-to-end support: preparedness → response → recovery
- Open, edge-ready integration via XML/JSON object model



Thank You

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