

ATLAS

Digital Crew Solutions for Land Applications

FEATURES

VivoeX UK GVA Land Data Model v10 (DEF STAN 23-009)

MediaX video streaming library H.264 / H.265 / JPEG / Raw (DEF STAN 00-082)

Deploy on GX-1 or BushNET

GVA Core Services: Registry, Alarms, and UACM with database persistence

C++ SDK for developing customer services and External Applications

Qt6 HMI Touchscreen interface with function keys, PPI, and video

Battlefield management system (BMS)

Usage & Condition Monitoring for system monitoring

Developer faster with LDMX topic monitor GUI

Bohemian SysML modelling tool with Copilot

Multi-DDS Support. Astute DDS, CycloneDDS, and RTI Connex

Analytics Dashboard for Real-time browser-based operations monitoring

ToolX video streaming diagnostics

Cross platform Windows and Linux



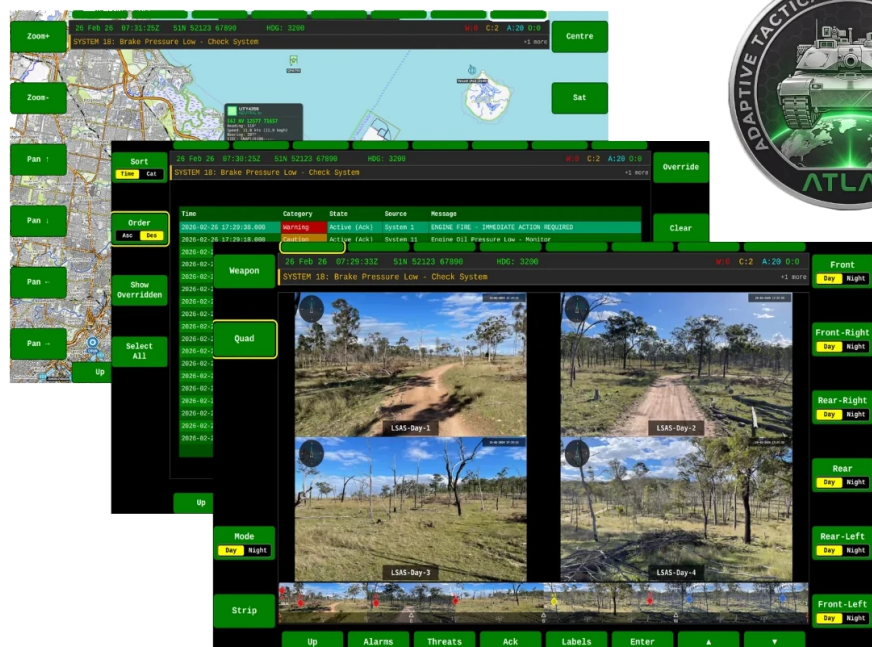
MADE IN AUSTRALIA

ATLAS is a comprehensive software suite implementing the UK Generic Vehicle Architecture (**GVA**) Land Data Model v10. It delivers a full stack of services, applications, and developer tools for building **GVA**-compliant vehicle electronic architectures. Use it for crew station HMI development, battlefield management, vehicle health monitoring, real-time situational awareness, DDS middleware integration, hardware-in-the-loop testing, and rapid prototyping of vetronics systems. Equally suited to new platform programmes, mid-life upgrades, and laboratory test environments.

Built on CycloneDDS for high-performance publish/subscribe messaging and Qt6 for modern cross-platform applications, the LDM SDK spans the entire **GVA** software stack — from IDL code generation and DDS middleware through registry, alarms, and UACM services to a full Human Machine Interface (HMI), Battlefield Management System (BMS), vehicle simulator, and web-based operations

dashboard. Deployable as systemd services with Debian packaging, the suite is designed for integration on rugged embedded Linux platforms and desktop development environments alike. Whether you are building a new crew station, upgrading legacy vetronics, or standing up a systems integration lab, the SDK gets you to first light faster than any alternative on the market.

Beyond the core **GVA** stack, the SDK integrates with external systems including TAK Server for joint situational awareness, J1939 CAN bus networks for vehicle telemetry, and SNMP-managed Ethernet switches for platform networking. A built-in licence service with HMAC-SHA256 signing protects deployed software, while comprehensive developer tools LDMX topic monitor, Bohemian SysML viewer, and ToolX diagnostics accelerate development and system integration testing. Contact Astute Systems today for a live demonstration and see the full **GVA** stack running on real hardware.



Astute Systems is a global leader in rugged AI computing and software for autonomous military systems and deployment in harsh environments.

SPECIFICATIONS

CORE SERVICES

GVA Registry Service (qt6-registry)

GVA Alarms Service (qt6-alarms)

UACM Service (qt6-uacm)

Resource ID allocation and tracking

DDS domain configurable

Platform configuration publishing

GVA Alarms Spec v3.0 compliant

Warning / Caution / Advisory categories

Re-annunciation timers

Crew role-based access control

Usage and Condition Monitoring

PostgreSQL/PostGIS spatial storage

RAG health status indicators

Fault event management

Characteristic tracking

APPLICATIONS

GVA HMI (qt6-hmi)

BMS with APP-6 symbology

Vehicle Simulator (3D OpenDRIVE)

Weapon Sight (GVA Display Extension)

Chat (DDS messaging + Android)

DEVELOPER TOOLS

LDMX Real-time topic monitor and debugger

Bohemian SysML viewer for Rhapsody .rpyx models

ToolX SAP/SDP streams, SNMP, and diagnostics

Web Dashboard Browser ops console with REST API

J1939 Gateway SocketCAN to DDS bridge

IDL Code Generator Auto C++ wrappers from IDL files

TECHNOLOGY STACK

UK GVA LDM 10.0.0

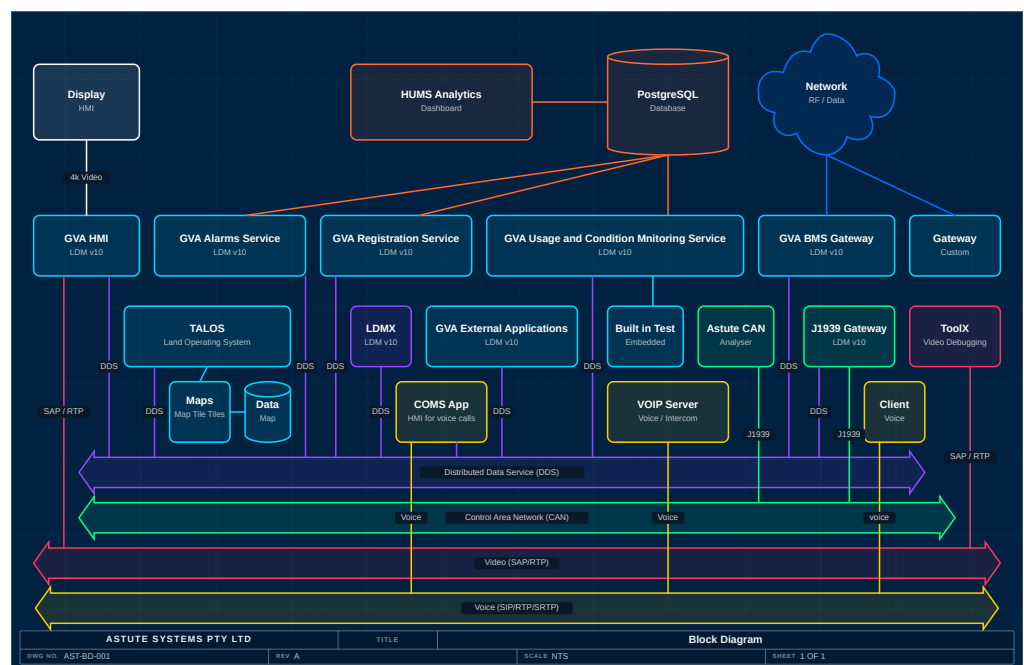
Language: C++20

Framework: Qt 6.x

DDS: Astute DDS, CycloneDDS, RTI Connext

Database: PostgreSQL + PostGIS / SQLite

Platforms: Windows, Linux (x86_64, ARM64),
Android



** Preliminary Datasheet Specifications are subject to change

CONTACT YOUR LOCAL REPRESENTATIVE

FOR MORE INFORMATION ON HOW WE CAN ADAPT OUR SOLUTIONS TO MEET YOUR I/O REQUIREMENTS

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