Nytt UK - Embedded Systems

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Embedded Control, Data and Monitoring Systems for the Aerospace Industry

System Capabilities

We develop embedded control and data systems for critical applications in radar, industrial and aerospace domains. Our solutions include:

- Modular radar control units
- Asterix-based data gateways
- Embedded telemetry and data reprojection
- Industrial IoT devices for positioning and monitoring
- Energy measurement equipment

Key Projects and Systems

Radar Data Gateway (Asterix Protocol)
Development of a modular, Eurocontrol-compliant data gateway based on the Asterix protocol. It routes radar data between acquisition and processing systems through a flexible networked architecture.

Radar Control Unit
Complete control system for meteorological radar:

- Operating system selection
- Subsystem monitoring and diagnostics
- User command interface and control dispatching
- Software for managing synchronizer, antenna commands, timing, services and subsystem health

Radar Data Storage Unit
Development of high-capacity radar data storage integrated with monitoring and diagnostics.

Telemetry and Monitoring Software
SNMP-based telemetry system for radar health and event tracking.

Airborne Radar Data Reprojection
Software for aligning aircraft-mounted radar data to true north in real time.

PRIME-Based Electrical Measurement Device
Custom device for energy metering compliant with PRIME alliance protocols.

FPGA on SoC Solution
We provide a high-performance FPGA-on-SoC design and deployment solution, allowing accelerated prototyping and implementation. This solution includes a modern and modular HMI for intuitive user interaction.

Tools & Infrastructure

Development tools:

- Embedded C/C++, Bash, Python
- Custom IDEs, RTOS integration
- GitLab, CI, DevOps pipelines

Hardware integration:

- SoC/FPGA interface
- Telemetry via SNMP, serial, IP
- Rugged enclosures and field deployment

Collaboration & Quality Assurance

We support the full lifecycle: from requirements to deployment.

- Requirement capture and architecture design
- Full traceability with GitLab and Jira
- Secure communication and encrypted transfers
- Automated documentation with test reports