

# Science Park

The High Tech Incubator

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## DATASOFT Embedded

**DATASOFT embedded is an IP services company offering OSAM (Open Software Abstraction Model). OSAM reduces complexity for safety and security and enables 100% re-use of code.**

By achieving the highest level of design re-use, DATASOFT radically reduces efforts in developing and validating mission-critical software for embedded and PC-based systems. DATASOFT accelerates the product development cycle enabling earlier time-to-market while delivering higher quality at lower cost for semiconductors, reference design houses and OEMs.

The focus of the offered services includes cross-platform software virtualization, which enables the development of embedded systems without known embedded target hardware. Code developed on the DATASOFT OSAM platform can be transferred to any embedded target platform without code change ensuring cross-platform compliance with functional security and cybersecurity requirements for communication protocols, stacks and blockchain-enabled applications.

OSAM virtualization platform optimizes quality and minimizes risks for mission critical systems. OSAM ensures independence of changing hardware and software, faster response to ever changing market conditions and constant reduction of complexity, efforts and costs for development, validation and certification of

mission critical embedded and PC based systems at continuously increasing quality.

As a Datasoft client you can focus on your core competency and product functionality, rather than worrying about mission critical implementations or costs on validating highly extensive safety and security certifications. Streamline your efforts on software development, optimize product quality and robustness consequently improve market shares and earlier return-on-investment (ROI) with OSAM.

## USP

- OSAM enables decryption, encryption, and individual distribution of cryptographic keys at each layer of the OSI model through a centralized secure communication channel enabling security attack detection, monitoring of software components at run-time, enabling/disabling functionality for debugging, reconfiguration and lifetime prediction of rolled-out systems.
- Platform independence means independent from microprocessor architectures, operating systems and hardware peripherals. It is significant, that software operating as WinNT or Linux kernel mode driver on a PC can get re-used in any hardware-oriented embedded periphery drivers without code change. Due to this, porting is eliminated finally: "Portability without porting of code".
- OSAM get's configured at compile time and runs in either stand-alone or middleware mode as task within a third-party operating system. "OSAM" virtualization platform radically simplifies the implementation of functional safety and cyber security.
- OSAM is a European and US software patent registered under "DEVICE, METHOD, AND COMPUTER PROGRAM PRODUCT FOR SECURE DATA COMMUNICATION", EP 3 167 593 B1 and US 10,516,656

## Target Market

DATASOFT adresses it's target Markets aerospace, avionics, automotive, telecom/datacom, medical, industrial, military, and consumer markets worldwide.

## Space Connection

DATASOFT cooperates with companies and research societies in the development of software for microcontrollers used in satellites including cubesats for control and communication systems.

One focus of the application of OSAM technology is the development of flight software. Here OSAM enables easy integration of safety and security for control, communication and process automation applications (Blockchain Connector).

In addition, we offer the technology to satellite operators and providers of satellite-based communication and control services for Remote Internet of Things (RIoT) devices.

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