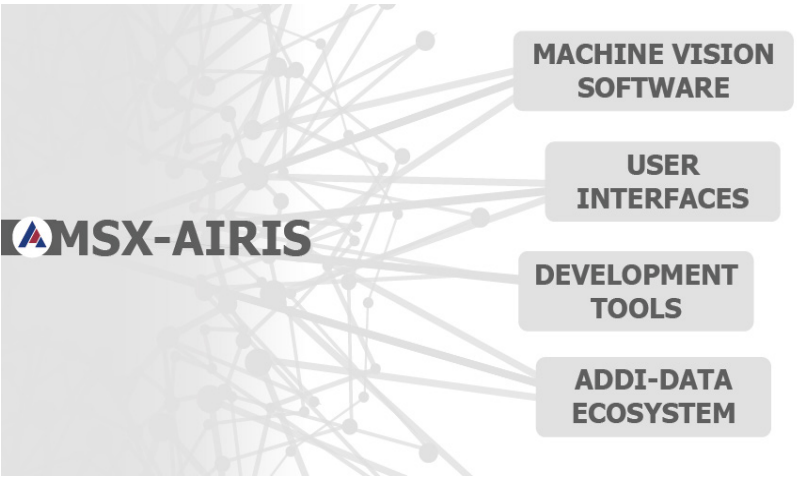
PRODUCTION–READY MACHINE VISION SOFTWARE WITH SDK



MSX-AIRIS

- Embedded deep learning and 2D/3D computer vision
- Multi-camera
- User interfaces (Android & web)
- MQTT and OPC UA interfaces for process reporting
- Customizable with Python SDK & development tools
- Accelerate computer vision system development
- NVIDIA Jetson Family compatible

OPC UA MQTT NVIDIA intel REALSENSE

The MSX-AIRIS software is an autonomous computer vision software that does not require a connection to the cloud. It enables the execution of artificial intelligence algorithms in real time, making the system more resistant to disturbances and less sensitive to environmental variations. It contains an intelligent industrial agent software with its user interfaces and allows developers to customize the algorithms executed using development tools (IDE + SDK) in applications named "Skills". From the developer's point of view, integration, sensor or effector interfaces, cybersecurity and communication issues are managed by MSX-AIRIS, allowing the developer to focus on his business logic thanks to our Vision SDK. The SDK offers native deep learning model integration as well as high-level video processing libraries in Python. Productivity is greatly improved since the customer does not develop a complete system but a small application compatible with MSX-AIRIS that meets his needs. MSX-AIRIS is designed by developers for developers...

Feel free to reach us!

CORE

System

- Lightweight for embedded applications and realtime processing
- Dynamic behavior possible with multiple "Skills" execution
- Cloud compatible version for computing intensive applications

User interfaces

- Easy to deploy with Android & web interface
- No coding system administration
- Secure system authentication with privilege levels
- Camera management, live playback and parameter settings
- Skill management with triggered launch possible

Communication interfaces

- Secured & encrypted MQTT & OPC UA for reporting
- Communication clients available for custom control routines

Actuators

- Compatible with ADDI-DATA MSX-E controller for 24V Digital I/O
- PLC control

SDK

- Easy application development with MSX-AIRIS Python library
- Standard computer vision Python packages integrated (OpenCV, Open3D, scikit-image...)
- Enables multi-camera processing in Skills
- Designed to combine deep learning and 2D/3D vision processing
- Result reporting configured from the user interfaces

VISION

- Native deep learning model support with GPU acceleration for classification, detection and segmentation.
- Native support for 2D cameras (UVC, GIGE, RTSP)
- Native support for 3D cameras (Intel Realsense)
- Surrounding cameras automatic discovery
- Guided deep learning model training
- Video recording

VS CODE EXTENSION

- Live visual probes to check your algorithm at different processing steps for easy debugging on live sources or recorded videos
- Installation of custom models with GPU accelerated engine generated automatically for real-time inference
- Multi-target skill deployment

USE CASES

- Smart measurement
- Visual Inspection
- Robotic vision
- Smart city

SOFTWARE ARCHITECTURE DIAGRAM