Industrial AI Acceleration for Machine Vision

MVTec HALCON

Unified machine vision with Intel-accelerated AI via OpenVINO™ ***for efficient, reliable industrial deployment***

HALCON is a comprehensive standard software for industrial machine vision, optimized for performance, efficiency, and long-term usability. Recent enhancements focus on improved ease of use and stronger rule-based machine vision, while leveraging Intel® architectures and the OpenVINO™ Toolkit for accelerated AI processing.

Deep learning and rule-based methods benefit from performance optimizations through the OpenVINO™ Toolkit AI² plug-in, enabling efficient inference on Intel CPUs, integrated GPUs, and NPUs.

Testing Intel® Core™ Ultra Series 3 processors with OpenVINO™ shows substantial NPU acceleration across MVTec's deep learning models, enhancing the performance for complex models like DeepOCR and Global Context Anomaly Detection (GCAD) - making it ideal for industrial applications with strict power, thermal, and reliability requirements.

Key Intel-Enabled Features

- Retrofit Applications
- Embedded Environments
- High-Performance Applications
- Industrial Machine Vision

Powered by Intel® Core™ Ultra Series 3 processors and OpenVINO™, MVTec HALCON offers:

- Compact NPUs fit constrained retrofit spaces where bulky GPUs sometimes cannot.
- Compact NPUs add efficient AI to embedded systems without extra hardware.
- NPUs enable true multitasking by running AI parallel to GPU work.

Intel Products and Technologies

- Intel® Core™ Ultra Series 3 Processors
- OpenVINO™ Toolkit
- Intel® oneAPI Toolkit

Ordering Guidance:

- Contact Us

Country/Geo: Worldwide

Edge Verticals/ Industry: Manufacturing & Robotics

Edge Use Cases: Quality Control; Anomaly Detection; Quality Inspection

Learn more:

- MVTec HALCON Web Page
- MVTec Website

03/26