

# Industrial AI Acceleration for Machine Vision

## MVTec HALCON

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.



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

### 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](#)
- [Intel® oneAPI Toolkit](#)
- [OpenVINO™ 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](#)

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