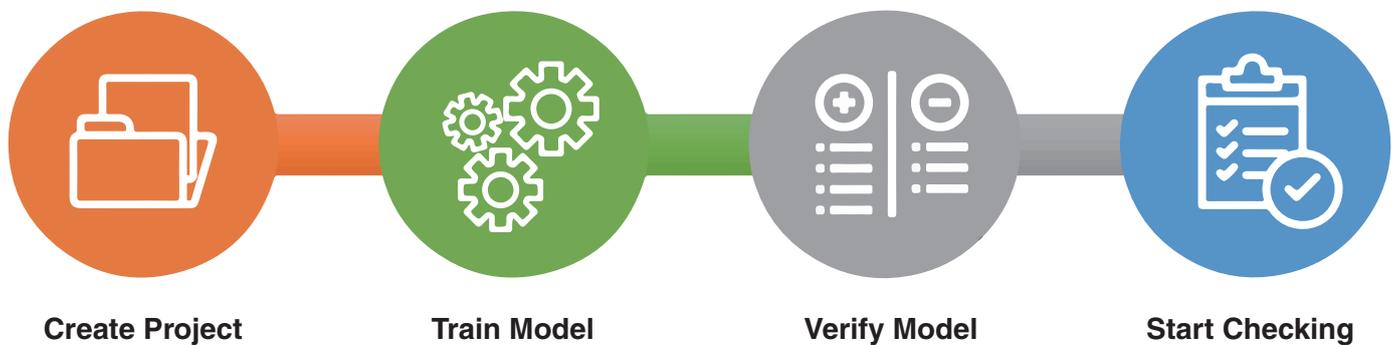




AISDetector

An AI-based application software for product quality inspection during the production phase



Introduction

AISDetector is AI-based application software that can be utilized to perform product quality inspection during the production phase. It provides an intuitive user interface that allows a production engineer or line manager to create an AI model in less than 1 minute, without requiring AI expertise.

Waveform signature analysis is the key technology used in the AISDetector software, which uses AI to automatically find abnormal patterns in signal raw data.

AISDetector software standardizes testing procedures, and its use avoids the potential for human error. The software also creates a production history, enabling traceability. Overall, it improves productivity and quality.



Create an AI model within 1 minute

Using fast AI modeling technology, users can create a new AI model within 1 min. This makes production line changeover easy, so it's a perfect match for small- or large-volume production.



Intuitive interface

AI knowledge is not required when using AISDetector. An intuitive interface enables full functionality, so production engineers or line managers can quickly learn how to configure models. The complete AI model training process can be completed in just 4 steps.



No AI accelerator needed

AISDetector only requires computing power from a typical CPU. This means that an AI-based manufacturing system can be adopted without significant investment.



Variety of data source

AISDetector supports a 3-axial accelerator, a single axial accelerator or a directional Microphone, and it accepts a range of data inputs, including voltage, electrical current, vibration signal, or voice wave forms.



Traceability of production history

AISDetector helps improve quality and efficiency by providing real-time visibility into operations, allowing root-cause analysis to be easily performed by a partner.



Automate and standardize testing procedure

Combining AISDetector and automated testing equipment can improve efficiency and eliminate the potential human error, improving quality.

System Requirements

- CPU : Intel® Core™ i3 or higher
- RAM : 8 GB or more
- USB : 2 free USB ports
(for the license dongle or USB microphone)
- OS : Windows 10 (64 bit)
- Storage device : SSD (recommended)
- Required system storage : 800 MB

Ordering Information

Description : AISDetector

Part number : 90IM0030-M2TB00

AISVISION



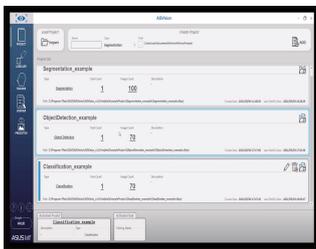
TRAINER



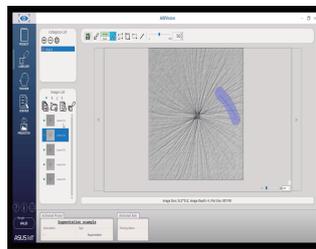
SCHEDULER

AISVision

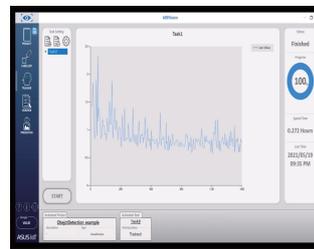
An easy-to-use AI toolkit and SDK for computer vision, model training and inference.



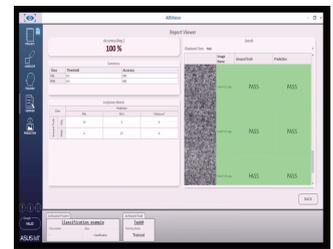
Choose model



Label image



Train model



Verify model

Introduction

ASUS AISVision is an ease-of-use toolkit covering ASUS AI techniques for the application of Machine Vision. AISVision provides three working modes Trainer, Runtime, and Scheduler for AI training, inference and batch training scenarios.

This toolkit covers some of the basic knowledge developers need to create an AI model in just a few minutes. Developers can use the toolkit to retrain their models using new data inputs, keeping the domain know-how in their own field. The toolkit also provides run-time modes that can be used as an inference engine to obtain in-line data for analysis and export the data for further analysis, visualization, database management, or services related to the Edge or Cloud. The Scheduler mode can be used to train pre-defined tasks in a batch for better efficiency.

Features and Benefits



Intuitive, simple, and quick project set-up

- Zero-code AI model training
- 4 steps to finish AI model training and verification



Four basic AI models for vertical application

- Object detection
- Object classification
- Segmentation
- Anomaly detection



Unique AI training framework

- Supervised mode
 - Rich annotation tool
 - Unique data augmentation
 - Few samples needed for training (10 Good, 40 NG)
- Unsupervised training framework
 - Anomaly detection technique



Report wizard for sample image result analysis

Multiple training projects scheduling for batch process



User-friendly software development

- Unique re-train mechanism to ensure data privacy
- Friendly software update mechanism
- Strong API support, including C#, C++, and Python

System Requirements

Trainer:

- CPU : Intel® Core™ i7
- DRAM : 16 GB or more
- O.S. : Windows 10 (64 bit) Professional
- USB : 1 free USB port (for license dongle)
- GPU : NVIDIA® GeForce® GTX1070, NVIDIA® GeForce® RTX1060, NVIDIA® GeForce® RTX3070 6GB above
- Required system storage : 8GB

Inference / Run-time mode:

- CPU : Intel Core i5 (minimum) / Intel Core i7 (recommended)
- DRAM : 16 GB or more
- O.S. : Windows 10 (64 bit) Professional
- USB : 1 free USB port (for license dongle)
- GPU : NVIDIA® GeForce® GTX 1070, NVIDIA® GeForce® RTX 2060 SUPER™ 6 GB above
- Required system storage : 200 MB

Developer:

- CUDA: cuda_11.1.0_456.43_win10
- CUDNN: Cudnn8.2.1
- Visual Studio 2017
- Programming language: C/C++, C# , Python

Ordering Information:

- Model: AISVision AI Toolkit (P/N: 90IM0050-M2TB00)
- Model: AISVision AI Runtime (P/N: 90IM0040-M2TB00)