



Intel® Edge Insights for Industrial (Intel® EII)

Frequently Asked Questions

December 2020



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Revision History

Date	Revision	Description
December 2020	1.0	Initial release

1.0 **Frequently Asked Questions and Answers**

This document provides answers to general questions that user(s) may come across while using the Intel® Edge Insights for Industrial (Intel® EII) for the first time. The following are some of the common questions and answers.

1.1 **What is Intel® Edge Insights for Industrial?**

Intel® Edge Insights for Industrial (Intel® EII) is a software reference design to securely ingest industrial time series and vision data, analyze it to identify insightful information, then publish and locally store that information. These pre-integrated ingredients are optimized for Intel architecture and enable the ability to act on those insights by sending downstream commands to devices (tools), as well as publish upstream to supervisory systems. Owing to its modular microservices architecture, Intel® EII enables developers to create custom solutions for the industrial market. It accelerates the process of developing an AI solution by providing pre-integrated foundational services, easing its deployment through system-level comprehended configurations and ensuring optimized performance on Intel platforms.

1.2 **What are the key advantages of Intel® Edge Insights for Industrial compare to similar data ingestion or storage software solutions in the market?**

Intel® Edge Insights for Industrial is unique. It provides an Intel-optimized edge analytics software reference design that extends Intel® Distribution of OpenVINO™ toolkit inference capabilities to enable a complete solution. Intel® EII is an open architecture that allows solution builders to customize and integrate with other edge and cloud software solutions. It can complement existing solutions by providing performance enhancements and functionality that may not be in other solutions (for example: video or media processing pipeline, improved IA-based analytics processing).

1.3 How do I get access to Intel® Edge Insights for Industrial? What is the licensing model for Intel® Edge Insights for Industrial? Is it similar to Intel® OpenVINO™?

Intel® Edge Insights for Industrial is available as a free set of software ingredients from Intel. Intel® EII is available via a click to accept license form available on Intel® Edge Software Hub and can be downloaded [here](#). The Intel® distribution of OpenVINO™ also has a proprietary Intel license and is included in the installation process when Intel® EII is installed.

1.4 Do we have commercially available offerings with Intel® Edge Insights for Industrial integrated? Intel® RRK or Intel® MRS with this capability?

Yes, through the [Intel® IoT RFP Ready Kit \(Intel® RRK\)](#) and [Intel® IoT Market Ready Solutions \(Intel® MRS\)](#) programs, solution builders can purchase commercially available, off-the-shelf solutions with Intel® EII-enabled. Here are two of our current offerings:

- [AI Ready Vision Kit for Smart Manufacturing \(JWIPC\)](#)
- [VHub AI Developer \(Vecow\)](#)

1.5 Does Intel support the Intel® Edge Insights for Industrial software?

Yes, Intel offers both community and paid support models for Intel® Edge Insights for Industrial.

- Community Support Resources:
 - Intel® EII *Installation and Get Started Guides and tutorials* are available [here](#).
 - Intel® EII *User Guide* provided with downloaded SW package.
 - Intel® EII *Installation and Training Videos* in [here](#).
 - Intel® EII *Overview Videos* in [here](#).
 - Intel's Developer Community Forum for Intel® EII is [here](#).
- For paid support offering, contact us [here](#).

1.6 How does Intel® Edge Insights for Industrial pair with my CSP (cloud service provider) infrastructure?

Like most edge software platforms, connection to CSP (cloud service provider) services differs for each CSP and it is done through their application management service. For Alibaba and Tencent, it can be done through an open-source service such as Portainer*. Publishing data from your edge Intel® EII device to your Tencent or Alibaba services is done through the built-in Intel® EII publish features in the message bus. Microsoft Azure* offers a proprietary application management service as part of Azure IoT Edge. An add-on-extension for Azure IoT Edge is offered along with Intel® EII through the customize download options. This extension enables the configuration of data flow from the edge to your Azure* services.

1.7 Are there examples of how Intel® Edge Insights for Industrial is deployed in end-user environments?

Intel® Edge Insights for Industrial has been deployed by multiple system integrators and OEMs. Below are featured solution briefs with these customers or partners detailing the deployment and business results:

- [Axiomtek Improves Production Efficiency with Automated Optical Inspection.](#)
- [An end-to-end Solution Powers Textile Industry Transformation.](#)
- [Vecow Accelerates Edge AI Solution with All-in-One Edge Developer Offering.](#)

Additional solution briefs can be found on the [Intel® EII landing page](#).

1.8 Are there any demo applications that I can look at as an example?

The Intel® Edge Insights for Industrial software package comes with multiple sample applications, including a PCB defect detection user-defined function (UDF), model, and video file. The [Get Started Guide](#) includes steps for setup and runs this sample application. The sample application showcases the detection of defects on printed circuit boards can be seen through the Visualizer tool.

Additionally, Intel has produced multiple physical demos, which can be seen at tradeshows worldwide where the Intel® Edge Insights for Industrial team has a presence.

1.9 What is Device Manageability?

Intel® Edge Insights for Industrial offers in-band device manageability through OTA (over the air) updates for firmware, software and application, along with remotely shutting and restarting the system. It supports Telit*, ThingsBoard* and Microsoft Azure* IoT Central cloud portals for device management services. More cloud portals will be part of future Intel® EII releases.

1.10 What is the OpenVINO™ toolkit?

[Intel® Distribution of OpenVINO™ toolkit](#) is a toolkit to accelerate the development of high-performance computer vision and deep learning inference for machine vision/AI applications. It enables deep learning on hardware accelerators and easy deployment across multiple types of Intel® platforms. Learn more about OpenVINO™ on the [Coursera course](#).

1.11 Both Intel® Edge Insights for Industrial and OpenVINO™ toolkit use models. Are these models the same or different?

Yes, since Intel® Distribution of OpenVINO™ toolkit is built in to Intel® EII, the same models can be used. Intel® EII enables extension and configuration or the runtime application of those models in order to address the complex nature of industrial scenarios. Example video or image inferencing models are available through the OpenVINO™ toolkit distribution available [here](#). Industrial-specific vision or image models are available through add-on options, as well as available as stand-alone reference implementations through [Edge Software Hub](#). Understand that a model alone does not enable a solution. Intel® EII provides the additional capabilities needed and exposes users to solutions builders through User-Defined Functions (UDFs). For more information, see the Intel® EII User Guide available at download.

1.12 What does Intel® Edge Insights for Industrial do beyond the OpenVINO™ toolkit capabilities?

OpenVINO™ toolkit only includes the functions to perform the inference event. Intel® Edge Insights for Industrial also includes the additional functions required in order to create a complete solution, including ingestion, publishing, storage, and action.

1.13 What is the Intel® Training and Learning Suite?

The [Intel® Training and Learning Suite \(TLS\)](#) is an easy to use end-to-end deep learning solution development toolkit for development of deep learning solutions using user datasets to produce a model for Intel® Edge Insights for Industrial inferencing. The toolkit is GUI-based with cross-platform support for Edge Server DL solution development. It enables data labeling, model and network selection, model training and model conversion to OpenVINO™ inference engine runtime model.

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2.0 References

Intel® Edge Insights for Industrial Resources:

- [Intel® EII Landing Page](#)
- [Intel® EII Download Page](#)
- [Intel® EII Product Brief](#)
- [EII Release Notes](#)
- Self-Service Support Resources:
 - Intel® EII *Installation and Get Started Guides and tutorials* are available [here](#)
 - Intel® EII *Installation and Training Videos* in [here](#)
 - Intel® EII *Overview Videos* in [here](#)
 - Intel's Developer Community Forum for Intel® EII is [here](#)
- [Intel® IoT RRK](#) and [Intel® IoT MRS](#) programs with featured Intel® EII-enabled solutions:
 - [AI Ready Vision Kit for Smart Manufacturing \(JWIPC\)](#)
 - [Vhub AI Developer \(Vecow\)](#)
- Solution Briefs:
 - [Axiomtek Improves Production Efficiency with Automated Optical Inspection](#)
 - [An end-to-end Solution Powers Textile Industry Transformation](#)
 - [Vecow Accelerates Edge AI Solution with All-in-One Edge Developer Offering](#)
 - [Audi Factory Automation Case study](#)
- [Intel® Distribution of OpenVINO™ Toolkit](#)
- [Intel Machine Vision landing page](#)
- [Intelligent Wellpad Control](#)

3.0 Terminology

3.1 Terminology

Table 1 Terminology

Term	Description
AI	Artificial Intelligence
CSP	Cloud service provider
GUI	Graphics User Interface
Intel® EII	Intel® Edge Insights for Industrial
MRS	IoT Market Ready Solutions
OEM	Original Equipment Manufacturer
OTA	Over the air
RRK	RFP Ready Kit
SI	System Integrator
UDF	User-defined function