ASRock Industrial Exclusive Features

- System & CPU temperature monitoring
- GPIO control
- Voltage data acquisition
- OPC UA Communication :
  (Read/Write, Subscription, Audit Eventing, Alarm & Condition)
- Robot Control
  - CPC Robot
  - Other Robot
    (control supported when manufacturer provides API)
- O-PAS Support
  - OCF Information Model
  - OCFB (O-PAS Connectivity Function Block)
  - I/O Service Engine
  - Alarm Engine

Runtime Features

- Communication Protocols
  - TCP/IP
  - Serial
  - Modbus TCP/RTU
  - MQTT
  - EtherNet/IP™
- Failover
  - HA (High Availability)

Product Overview

AiUAC Runtime is an IEC 61499 compliant runtime engine built on the UniversalAutomation.Org (UAO) runtime, ensuring vendor-independent interoperability while integrating ASRock Industrial's exclusive hardware-aware features, including system telemetry, GPIO control, and flexible robot integration, for resilient, open, and future-ready automation across industries. Designed to meet the needs of modular and decentralized logic execution, AiUAC enables seamless integration with field devices and IT systems using widely adopted industrial protocols. It is fully compatible with EcoStruxure Automation Schneider Expert (Schneider EAE), supporting the complete IEC 61499 development lifecycle from design to deployment. Optimized for deployment on ASRock Industrial's Industrial Robust Edge AIoT Platforms, it empowers engineers to build flexible, scalable, and reliable control systems with native support for hardware-level monitoring, edge-to-cloud communication, and real-time process visibility.

Product Features

Seamless Workflow with Schneider EAE
Fully supports engineering workflows from EcoStruxure Automation Expert (Schneider EAE), enabling users to design IEC 61499 function blocks and deploy them directly to runtime without custom integration

Secure and Interoperable Communication
Facilitates reliable machine-to-machine and system-level communication using OPCUA, MQTT, Modbus, and EtherNet/IP™ protocols, supporting both IT and OT system integration

Expandable for Open Process Automation
Designed with forward compatibility for O-PAS and OCF-based architectures, providing a sustainable path for open, standards-based industrial modernization
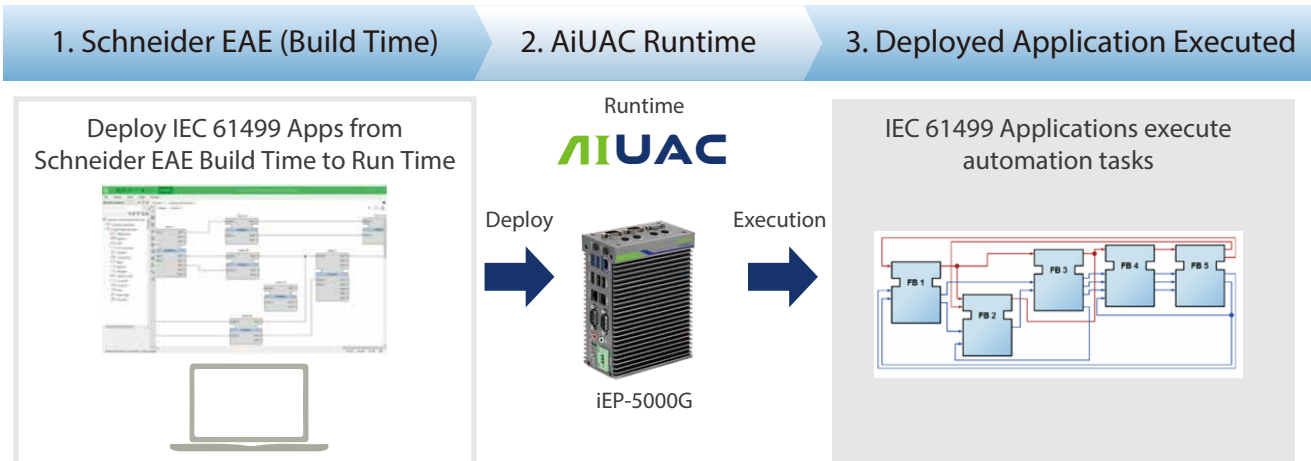
Hardware-Aware Diagnostics
Leverages ASRock Industrial's Industrial Robust Edge AIoT Platforms to retrieve real-time CPU and motherboard temperature, GPIO states, and voltage data, enhancing visibility and enabling preventive maintenance strategies

Scalable Runtime Architecture
Built on a modular, event-driven logic engine with high availability support (HA), the runtime can scale across distributed systems for mission-critical industrial operations

AIUAC

ASRock Industrial Universal Automation Control

How it works

| 1. Schneider EAE (Build Time) | 2. AiUAC Runtime | 3. Deployed Application Executed |

Deploy IEC 61499 Apps from Schneider EAE Build Time to Run Time

Runtime

AIUAC

Deploy → iEP-5000G → Execution

IEC 61499 Applications execute automation tasks

System Requirements

Specifications	Description

iEP-5000G Series System
iEP-5010G Series System
iEP-5020G Series System
	• CPU: Intel Atom® processor
	• Memory:
	  DDR4 3200 MHz SO-DIMM W/T 16GB (For iEP-5000G/5010G Series System)
	  DDR5 5600 MHz SO-DIMM W/T 16GB (For iEP-5020G Series System)
	• Storage: M.2 2280 PCIE3.0 W/T SSD 128GB
	• OS: Ubuntu 22.04 LTS

iEP-7020E Series System
iEP-7030E Series System
iEP-7040E Series System
	• CPU: Intel® Core Ultra / Core i Processor
	• Memory:
	  DDR4 3200 MHz SO-DIMM W/T 32GB (For iEP-7020E Series System)
	  DDR5 5600 MHz SO-DIMM W/T 32GB (For iEP-7030E/7040E Series System)
	• Storage: M.2 2280 PCIE3.0 W/T SSD 256GB
	• OS: Ubuntu 22.04 LTS

iEP(F)-9030 System iEP(F)-9040 System	• CPU: Intel® 14th/15th Core Processor with H610/R680E chipset • Memory: DDR5 5600 MHz SO-DIMM W/T 64GB • Storage: M.2 2280 PCIE3.0 W/T SSD 512GB • OS: Ubuntu 22.04 LTS

Ordering Information

Part Number	Description
TBD	AiUAC Trial Version
TBD	AiUAC Formal Version 1.0

The specification is subject to change without notice. Any configuration other than original product specification is not guaranteed.