OPEN INDUSTRY 4.0 ALLIANCE

AAS-BASED ASSETS MANAGEMENT WITH ZENON

In this use case we can demonstrate how an asset can be onboarded in the automation and digitalization platform zenon. The goal is to speed up onboarding by using a standardized interfaces description based on AAS and the possibility to view time series data, collected during manufacturing, or shipping of the asset. Additionally, assets which were onboarded without AAS, (e.g. by using Module Type Package) can get an AAS representation and enjoy all advantages such as interoperability with other systems over time series data.

USE CASE LEAD

COPA-DATA

PARTNER

Endress+Hauser
People for Process Automation

MOTIVATION

Asset onboarding and management is essential in both greenfield and brownfield projects, with significant potential for efficiency gains and error reduction through standardized interface definitions. The interoperable handling of time series data aligns well with the core principles of the zenon Software Platform. The goal was not only to read from existing AAS instances but also to enrich them and create new AAS instances where needed.

VALUE PROPOSITION

Standardized, supplier-independent asset interface descriptions streamline system integration and maintenance. AAS-based standardization speeds up the process, reducing errors for both new and existing projects. Customers benefit from a unified interface list for faster onboarding. New AAS representations can be created for equipment without them, supporting digital twin-based asset management. The Time Series Data submodel enables asset data viewing and writing, ensuring system interoperability.

THE ROLE OF THE OI4

Provision of information, documentation and guidance on how to get started with the topic of Asset Administration Shell. Additionally support by providing templates and examples for development. The alliances experts did also support in project management and the alliance is acting as a conduit for engagement with other members.

AAS SUBMODELS USED

ASSET INTERFACES DESCRIPTION
TIME SERIES DATA / INCLUSION OF MODULE TYPE PACKAGE (MTP) DATA INTO ASSET ADMINISTRATION SHELL

PHASE OF ASSET LIFE-CYCLE

ONBOARDING / OPERATION / MAINTENANCE