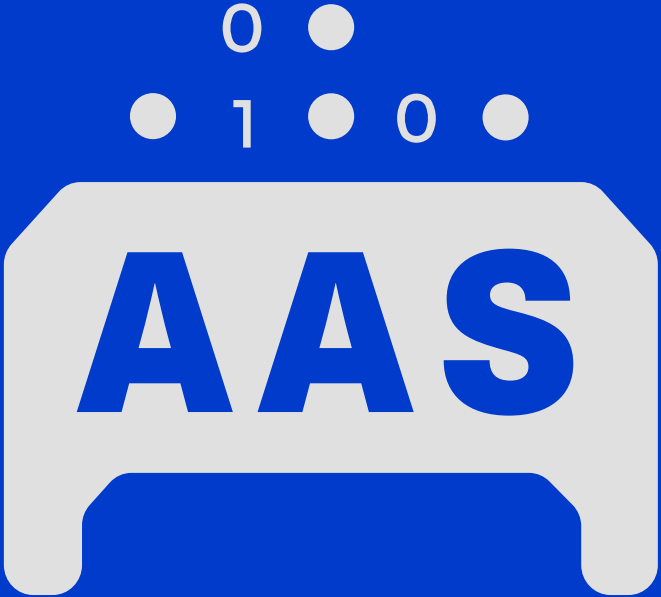


The Asset Administration Shell (AAS) in Action

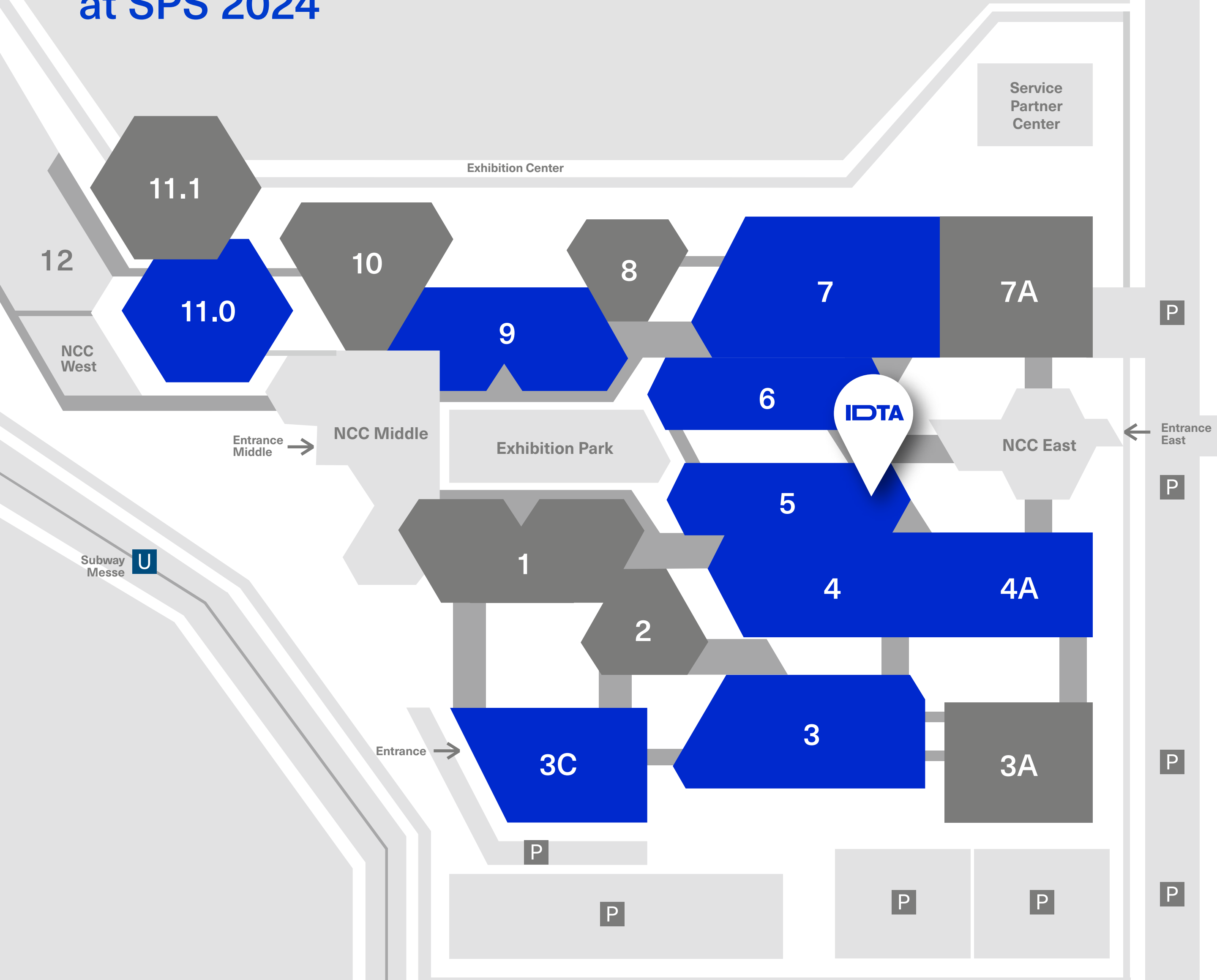


AAS Guide

SPS 2024



Visit us and our Partners at SPS 2024



AAS exhibits



DPP4.0 – The Digital Product Passport for Industry 4.0

With DPP4.0, the ZVEI presents a flexible, efficient and future-proof concept for the technical implementation of a digital product passport and demonstrates its feasibility using a demonstrator. DPP4.0 enables companies to document and provide required product information. The demonstrator uses DPP4.0 to aggregate product information, such as the Product Carbon Footprint, across the supply chain.

www.zvei.org

Stefan Schork

Antrieb 4.0: Interoperable Solutions and Common Standards

Using the example of energy monitoring, Antrieb 4.0 shows how interoperable solutions and common standards can be used to draw conclusions about actual energy consumption. This example shows how multilateral data sharing can significantly improve efficiency, sustainability and costs in the field of electric drive.

www.antrieb40.org

Dr. Falk Eckert

Hall 3
Booth 331



Manufacturing-X – Digitalize the Entire Manufacturing and Supply Chains

Learn more about Manufacturing-X and Siemens involvement in this German initiative to digitize the entire manufacturing and supply chains in industry. It aims at implementing the data space for Industry 4.0 across industries on a global scale. The goal is to enable digital innovations for greater resilience, sustainability and competitiveness.

Hall 3
Booth 339

www.vdma.org



Manufacturer components type AASX V3 for CAE systems

Providing manufacturer components type AASX V3 and Multi CAE digital twins in the fields of electrical engineering and electronics for industrial customers for engineering and simulation.

Hall 3C
Booth 301

www.3dfindit.com/digital-twin

E-Mail



Smart Assets

SMC and its partner (ZHAW and objective partner) present an approach for digital twin with AAS for the complete lifetime of their components: 'SmartAssets'. 'SmartAssets' provide full interoperability digital twins on component level, which will serve as a foundation for various industrial applications such as energy management, asset management, process visualization, maintenance strategies, industrial metaverse and customization.

Hall 4
Booth 371

<https://www.smc.eu>



Use AAS for the Predictive Maintenance Service

The AAS is used for sharing asset information between component manufacturers and operators to analyze the gearbox wear of a brushless DC motor. The operator transfers the AAS from the component manufacturer to their system, enriches it with time series data, and then shares it back with the component manufacturer for analysis.

The operator has full control over their data and independently decides which data they want to share.

Hall 4
Booth 540

www.dunkermotoren.com

Christoph Baschnage



Interoperable Digital Twins for the Process Industry

Demonstrator how "Automated as built" and master data exchange are enabled by using standardized digital twins based on the AAS in cross-vendor and cross-company scenarios and to improve efficiency by AAS-based automated services. Key is the interoperability for all workflows and systems by use of the AAS.

Hall 4A
Booth 145

www.endress.com

Michael Riester



Securing the Supply Chain with AAS

Cross Enterprise AAS Transfer allows businesses to securely share digital twins (Asset Administration Shells) across enterprise boundaries. This enables real-time collaboration, improves supply chain visibility, and optimizes asset management, all while ensuring data privacy. By adopting this standard, companies can enhance interoperability, streamline operations, and drive digital transformation. All this and even more can be done by using the AAS Suite from Meta-Level Software AG.

Hall 5
Booth 160

aas-suite.com

E-Mail



AAS Components used for Collaborative Engineering

Eplan will be demonstrating how the AAS is used to manage data from the engineering of control cabinets or machines. Data that component manufacturers already use through the AAS concept is thus also integrated into the Eplan software. Additionally, the AAS is used to harmonize digital workflows between software tools throughout the lifecycle of a machine and beyond the boundaries of the participating companies involved in engineering, building, integrating, operating and servicing the asset.

Hall 5
Booth 358

industrialdigitaltwin.org/use-cases



DPP Creation and Provisioning via ID-Link and AAS

The DPP4.0 is an approach to provide the Digital Product Passport (DPP) based on the combination of Asset Administration Shell (AAS) and ID-Link according to IEC 61406. In our demonstrator we show how our IT/OT platform Unibeam collects data from OT to create Instance specific AAS. By scanning the QR Code, the shown solution provides a human readable webpage, as well as an API for M2M communication.

Hall 5
Booth 210

demo.codewerk.de/aas/example

E-Mail



On-demand generation of type AASX V3 for component manufacturers

Providing manufacturer components type AASX V3 and Multi CAD digital twins in the fields of electrical engineering, electronics and mechanics for industrial customers for engineering and simulation.

Hall 5
Booth 358

www.3dfindit.com/digital-twin

Mail



Home of the AAS

Get ready for the industrial implementation of the AAS. Get all the information and updates on the AAS information model, use cases, submodels and all developments from this onestop shop for the AAS.

AAS in Manufacturing-X

As part of the Manufacturing-X (MX) initiative, IDTA ensures digital interoperability based on AAS in the DAVID project. This enables further projects to model and use the AAS for their applications. The IDTA thus guarantees the technological and semantic interoperability of the MX projects. Together with other project partners, IDTA provides insights into the development of an open data ecosystem and the process towards technological and semantic standardisation.

Hall 5
Booth 358

industrialdigitaltwin.org

E-Mail



AAS and Catalogs for (configurable) Manufacturer Products

Class.Ing offers a solution that allows product manufacturers easily to create Asset Administration Shells AAS for standard and configurable products. Existing data from various systems is merged and transformed. Technical data is transmitted using the ECLASS standard, whereby mappings of company specific data is easily possible. The creation takes place in the first step on type level and can be extended. In this way, data can also be prepared for the DPP 4.0.

Hall 5
Booth 358

www.classing.de

Mail





AAS.TwinEngine

AAS.TwinEngine is used to create and manage digital twins of physical objects by means of standardised Asset Administration Shells. Building an AAS platform based on a modern Data Fabric architecture is revolutionising the way data is organised and analysed in the company. The Data Fabric forms the backbone of the AAS.TwinEngine and enables customers to seamlessly integrate a wide variety of structured or unstructured data from various data sources which then can be easily converted to an AAS.

Hall 5
Booth 358

www.mm-software.com

Dr. Jens Achenbach



Brownfield-Integration with the Industrial Information Hub

The Industrial Information Hub brings together all information via standardized interfaces. This improves your data management and facilitates the integration of future machines into existing structures. IIH as an AAS repository can serve use cases like asset management, data connectivity to field and control devices, use of semantic data models and synchronization with other repositories.

Hall 5
Booth 358

www.siemens.com

Karsten Schneider



Neoception® Digital Twin Infrastructure

Hands-on: Benefit from dozens of AAS use cases today, and be ready for the DPP tomorrow! We'll show you how our industry-ready product enables you to start and scale effortlessly.

Take control as the content admin of our Neoception® Digital Twin Infrastructure, and automate the generation of thousands of digital information twins. With rule-based configuration, transforming your proprietary data into standardized AAS is seamless. Add something? Change something? No problem!

Hall 5
Booth 358

www.neoception.com

E-Mail



Eclipse Mnestix – The industry-proven Booster for your AAS & DPP Project

Eclipse Mnestix is an open source software suite designed to simplify the implementation of standardized digital twins using the Asset Administration Shell (AAS). It opens the way for use cases such as the Digital Product Passport (DPP) which is shown at the SPS. Together with increasing contributions from users and developers, a growing community is working on further development under the coordination of XITASO. Moreover, XITASO provides an Enterprise Edition facilitating the professional use.

Hall 5
Booth 358

www.xitaso.com

Alwin Hoffmann



BaSyx Enterprise: Dynamic Asset Management & Smart Maintenance

Explore BaSyx Enterprise, the ultimate Asset Management platform for designing, managing, and optimizing production lines. With tools for standardized line configuration and seamless integration of supplier components, BaSyx Enterprise lets you create, adjust, and optimize your production setups effortlessly. Experience how you can dynamically customize the entire production line. Instantly access real-time data such as status, maintenance guidelines, service history, and parts availability.

Hall 5
Booth 358

objective-partner.de

Leon Hinger



BEATS AAS Generator

BEATS provides an AAS generator with direct ECLASS integration. Special features: New and individual AAS templates as well as DPP templates based on AAS and ECLASS can be created with just a few clicks. Either predefined submodels or user-defined submodels can be selected. ECLASS elements or other semantic structures can be added from a modular system. Both instantiation and creation of custom templates are possible. Finally, QR codes can be assigned or even existing BME-cats can be converted.

Hall 6
Booth 221

beats.bcon2.com

Thorsten Kroke





twinsphere AAS Platform

twinsphere is the powerful SaaS platform for digital twins based on the AAS. It offers flexible solutions for companies to simplify their digital transformation, increase process efficiency and securely manage digital assets. Scalable from small and medium-sized to large scale scenarios, it supports companies with a wide range of use cases along the value chain like Digital Nameplate, Edge Device Onboarding, the upcoming Digital Product Passport or Document Exchange according to VDI-2770.

twinsphere.de [Christian Günther](mailto:Christian.Guenther@twinsphere.de)

Automatic Document Exchange with VDI-2770

Using the VDI adapter complement efficiently implements documentation transfer according to VDI 2770 for AS-Schneider. In combination with the AAS platform twinsphere, documents and meta-data are standardized and transmitted to Sharecat. The VDI adapter ensures that the documents are compliant and complete, enabling error-free document management across the value chain. This solution significantly improves the exchange and organization of information.

Hall 6
Booth 240

www.complement.de [Britta Waligora](mailto:Britta.Waligora@complement.de)



AAS for Brownfield Assets

AAS Integration for Brownfield Assets demonstrates how to retrofit legacy machines with Asset Administration Shell, enabling seamless digital transformation in existing industrial environments. This type-2 AAS model integrates multiple submodels, such as Digital Nameplate, Technical Data, and Simulation Models, to enhance data accessibility, automation, and operational efficiency. The demonstrator is hosted on a local server, illustrating asset data integration and interaction.

Hall 6
Booth 240-7

www.hs-kempten.de [Pooja Kumari Gupta](mailto:Pooja.Kumari.Gupta@hs-kempten.de)



TwinStore

TwinStore offers a variety of ready-to-use 4D simulation models directly from the manufacturer to download in just a few clicks – also in the AAS format! You can also easily export your digital twins from our ISG-virtuos simulation software in AAS-compliant file format and then make them available on the TwinStore.

Hall 6
Booth 338

www.isg-stuttgart.de [E-Mail](mailto:E-Mail@isg-stuttgart.de)



Stuttgarter Maschinenfabrik – A software-defined Value Network.

The ISW is rethinking fragile value chains towards software-defined value networks to achieve resilience advantages in a VUCA world. The asset administration shell is used as a core technology to enable the orchestration of these networks as well as the secure exchange of product and process information..

Hall 6
Booth 340

www.isw.uni-stuttgart.de [Valentin Kamm](mailto:Valentin.Kamm@isw.uni-stuttgart.de)



Efficient Import of a Machine's bill of Material into the ICONICS Suite

Discover the import of all automation components of a machine in one step into the ICONICS Suite, a software for structured data collection, visualization and analysis. Using standardised AAS submodels, the AAS of the Rubik's Cube machine from Mitsubishi Electric, which recently set a world record in automated cube solving, is integrated with all its components into the ICONICS Suite.

Hall 6
Booth 348

de.mitsubishielectric.com [Matthias Müller](mailto:Matthias.Mueller@mitsubishielectric.com)



Digital Twin Platform (Productive Solution)

We offer 2 Expert Talks per day at our stand with external speakers. One day will focus on the Digital Product Passport (DPP) according to the ESPR.

Hall 7
Booth 170

dt.r-stahl.com [Roland Dunker](mailto:Roland.Dunker@r-stahl.com)





AAS Repository

Suitable for beginners and advanced users: WAGO shows principle of AAS and how it can already be obtained today. Talk to experts about AAS and how AAS will be used in the future.

Hall 7
Booth
130/230/330

aas.wago.com



AAS from Manufacturer to Shopfloor

The AAS enables new opportunities in the digital environment. We demonstrate a holistic approach to the digital journey and its toolchain using AAS. We show how the approach ensures to benefit everyone involved in the product lifecycle and demonstrate this with a real-life use case. One particular focus is on the information provided by a component manufacturer and how this data creates noticeable added value in engineering and operation.

Hall 9
Booth 325

www.murrelektronik.com

[Lars Dörner](mailto:Lars.Dörner@murrelektronik.com)



engineered to win

Lenze Digital Twin – the Central Hub of a Machine

The Lenze demonstrator shows how the Asset Administration Shell can be used to make component and machine information transparent and available across manufacturers. Information about the machine, such as its topology, is generated early in the engineering phase. During the operational phase, this data is integrated with process data, allowing different applications to access relevant information in a consistent way. An asset management system is used as an illustrative example.

Hall 7
Booth 391

www.lenze.com



Asset Administration Shell based Device Onboarding

The Edge Device Onboarding Service on a u-control M4000 uses the AAS to retrieve onboarding information for the onboarding of the desired 3rd party APPs, in the given example the flecs agent. The flecs marketplace provides this information in the digital twin of the edge device. Flecs retrieves device specifications from the AAS in twinsphere and identifies compatible apps. Experience how interoperability and efficient lifecycle management are revolutionising the provision of IIoT devices.

Hall 9
Booth 351

www.weidmueller.com

[Martin Flöer](mailto:Martin.Floer@weidmueller.com)



Digital Twin & Digital Engineering

Digital Twins & Digital Engineering offers simplified solution finding, efficient engineering and solutions with high quality: Festo presents how Digital Twins in the form of Asset Administration Shells from Festo are generated for customers and how customer can transfer Digital Twins into their own engineering system. Festo presents selected use cases, how customers can use Digital Twins from Festo in administration, engineering and operation.

Hall 9
Booth 305

www.festo.com

[Johannes Hoos](mailto:Johannes.Hoos@festo.com)



AAS Integration PLCnext Technology

Here, AAS use cases for the software management of automation systems can be experienced using a demonstration software setup.

Hall 9
Booth 310

www.phoenixcontact.com

[Dr. Andreas Würger](mailto:Dr.Andreas.Würger@phoenixcontact.com)



Interoperable Digital Twins within Engineering and Service via AAS

Addressing the digital twin data interoperability challenges in engineering and service, two use cases leveraging the AAS standard have shown great customer value. Within engineering, the lack of seamless data exchange between suppliers is resolved by incorporating the AAS in Teamcenter, ensuring up-to-date, high-quality digital twin data. In the service phase, centralizing and standardizing service data using AAS/DPP4.0 through a modular low-code app with Mendix enhances efficiency and quality.

Hall 11.0
Booth 100

www.siemens.com

[Constantin Liepert](mailto:Constantin.Liepert@siemens.com)

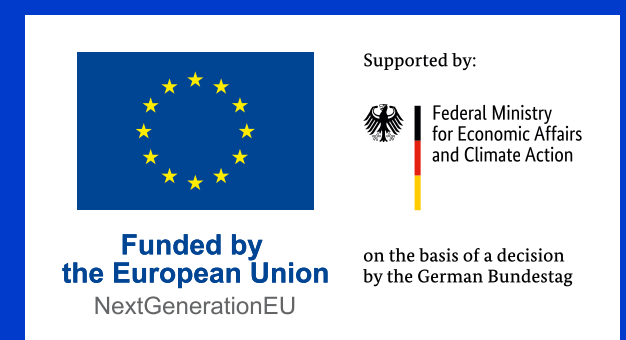


AAS Lecture Program

AAS @ Technology Stage		Hall 3, booth 421
TUE 12.11. 09:35 – 09:55	Simply (?) use the Asset Administration Shell Andreas Wick (Neoception)	
TUE 12.11. 14:55 – 15:55	Maximizing the Efficiency throughout the Value Chain using AAS (Asset Administrations shells) – Digital Twins Fabian Mittnacht (Bürkert Fluid Control Systems), Joachim Komar (Zeta)	
THU 14.11. 13:15 – 14:00	The Asset Administration Shell in Engineering – Reducing Costs with the Interoperable Digital Twin Constantin Liepert (Siemens), Johannes Geyrhalter (EPLAN), Ernst Esslinger (HOMAG), Horst Heinol-Heikkinen (Asentics)	

AAS @ Forum Hall 6		Hall 6, booth 130
TUE 12.11. 15:20 – 15:40	Smart Asset – digitale Daten als Wegbereiter für den gesamten Produktlebenszyklus Oliver Prang (SMC Deutschland)	
TUE 12.11. 16:20 – 16:40	Software-defined Manufacturing – the new Manufacturing Paradigm Michael Neubauer (ISW)	
WED 13.11. 14:00 – 14:20	Digitaler Zwilling im Brownfield Christian Günther (Complement)	

Get an overview of AAS-related software, products, services, demo factories and more.



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