

Factsheet Asset Onboarding



Asset onboarding – commissioning made digitally easy

- Elimination of manual steps during onboarding and thus reduction of systemic errors
- Simplified and automated asset management
- Acceleration of the onboarding process
- Improved quality of master data on the customer side

The onboarding of assets in the process industry is a process that is already partially automated today, but still involves steps that have to be carried out manually. An example of such manual steps is the end-to-end process including the exchange of master data between manufacturer and operator. Access to asset master data and especially the process of data exchange as well as the formats used are proprietary depending on the use case and require manual processing. The Asset Administration Shell (AAS) with corresponding submodels offers the possibility of fully automating these steps and thus making the onboarding process more efficient through higher performance and less susceptibility to errors.

Create digital twins of plants

A cross-manufacturer digital twin based on the AAS fully automates asset management and thus accelerates and optimises asset onboarding. Plant operators benefit from a significantly improved quality of their master data and the avoidance of lock-in effects in software and hardware through the use of open standards. The component manufacturer can expand its support offer on the basis of the AAS and optimise maintenance processes. Ultimately, components can be used more efficiently and costs can be reduced as a result. The use of the AAS as the digital twin of a plant pays off.

The AAS enables remote commissioning through automatic onboarding

The remote commissioning of assets in the sense of automatic onboarding and the initialisation of a digital twin in the corresponding asset management system is only made possible by the AAS. The AAS and its submodels support the exchange of master data and thus support the onboarding process itself, reducing complexity and minimising errors.

The onboarding of assets in the process industry is currently a process that consists of several steps and must be monitored by the operator's personnel. Some of these steps can already be done automatically, e.g. onboarding via RFID tags or QR codes, auto-sense mechanism, etc. The end-to-end process, including the exchange of master data between manufacturer and operator to enable the creation of the digital twin, is still only possible in several manual steps.

This is where the AAS unfolds its full potential. The asset onboarding process can be automated by standardising master data and its exchange from manufacturer to operator with the Asset Administration Shell and its submodels.