



Advancing a standard data format for manufacturing machinery

The establishment of a common data framework could significantly improve efficiency and interoperability, offering substantial benefits to the maintenance industry and industrial software producers.

Standardization Needs

Despite the existence of de-facto standards, there is no universally accepted standardized framework for data formatting across OEMs, vendors, and integrators. The development of such a framework for common data formats is crucial to facilitate seamless communication between machines, optimizing data availability and production processes.

Furthermore, it would enhance collaboration and interoperability, particularly for the reuse of equipment, benefitting stakeholders, such as machine OEMs, end-users, and integrators.

Existing standards in this area

- ISO 3592
- ISO 6983-1
- ISO 10303 series
- ISO 13584 series
- ISO 15531 series
- ISO/CD 23726-3
- ISO/AWI 23726-2
- ISO/AWI 23726-100
- ISO 13374-1
- ISO/TR 15060
- NISO Z39.2
- GB/T 18155
- IEC 61360 series
- DIN SPEC 16592

Requirements for a new standard to establish a data format for manufacturing machinery

- comprehensive framework for a common data format to effectively capture and represent machine data, including production data and machine conditions is needed
- Description of general properties of machines and creation of structure in a generic format
- Outline of a minimum set of requirements necessary to describe machine's attributes and performances
- Applicable to both new and second-hand industry equipment

ALICIA Results

- ALICIA equipment information input structure and description of general properties of machines
- ALICIA Asset Administration Shell models as part of use-case demonstrators
- Capability modelling for use-case equipment in ALICIA
- ALICIA Middleware Asset Adaptors



More information available in „European Research project ALICIA: Recommendations for Standards on the Reuse of Production Resources“ accessible on the [ALICIA website](#)

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