Incorporating Standardized Factory Device Data into the Model – Based Enterprise

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Background

"Upstream"

Product Lifecycle Management Design Engineering ISA-88 ISA-95/B2MML



PackML MTConnect ISO13399 Proprietary Interactions



Proprietary Stack

+ Seamless user experience – Functionality – Cost

Proprietary Stack

Partially open, standards based stack

Cutting tools example



Partially open, standards-based stack

+ Functionality

- Integration nightmares
- Cost*

*no bundling no economies of scale

Partially open, standards-based stack

Scalability and Monolithic Standards

Monolithic standard = Proprietary stack

CONCLUSIONS

Standards developers should pursue:

Openness Modularity Pluggable architectures Harmonization

See also: microservices, service oriented architecture, APIs Standards developers should pursue:

Openness Modularity Pluggable architectures Harmonization

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