



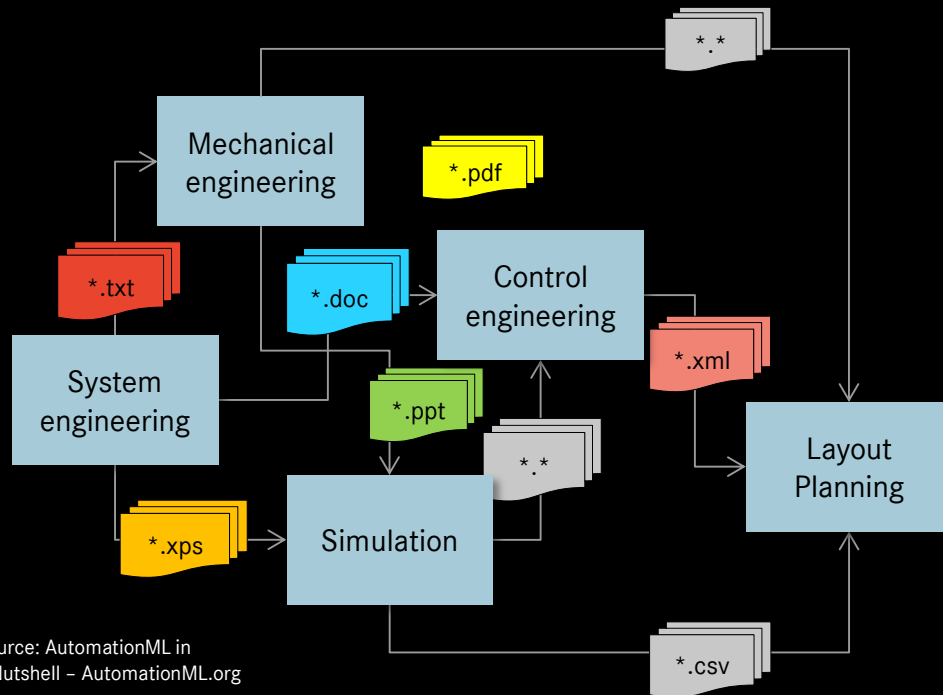
Integrate AutomationML in a toolchain – integraEngineeringStudio

Joachim Burlein (TF/VAS)

Mercedes-Benz
The best or nothing.



Challenges of data exchange in a heterogeneous software tool landscape



Source: AutomationML in
a Nutshell – AutomationML.org

Different disciplines

Different software tools

Different granularity

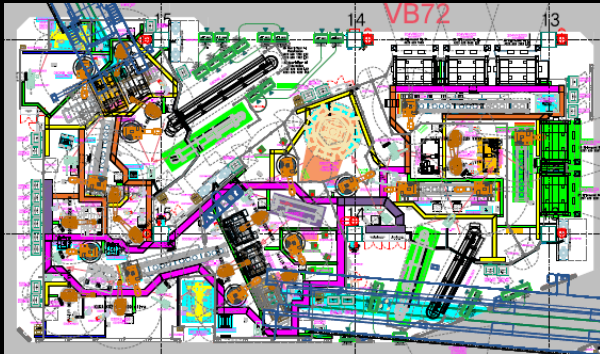
Different information

Different interfaces

Classic way examples – Safety Layout

Task: mechanic planner

Detail Layout planning



Tool: Layout Tool

Base data

Task: electric planner

Safety Layout planning

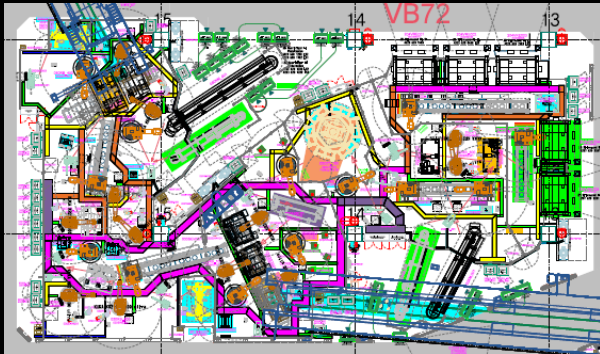


Tool: PowerPoint

Classic way examples – PLC cycle times

Task: mechanic planner

Detail Layout planning



Tool: Layout Tool

Base data

Task: electric planner

Cycle time calculation



Tool: Excel

Classic way examples – PLC HMI

Task: electric planner

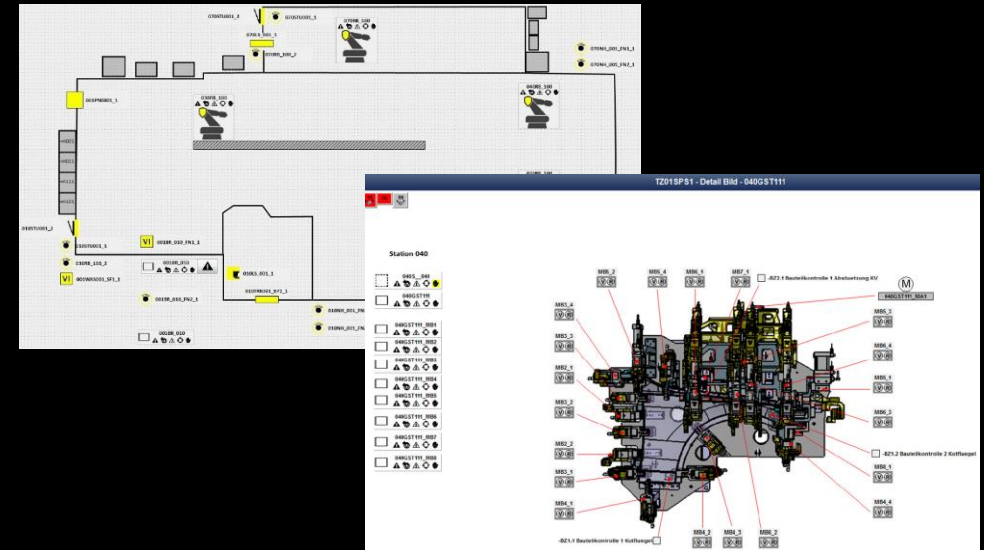
Safety layout



Base data

Task: PLC programmer

generate PLC HMI



Classic way examples – PLC HMI

Task: electric planner

Safety layout



Base data

Task: electric planner

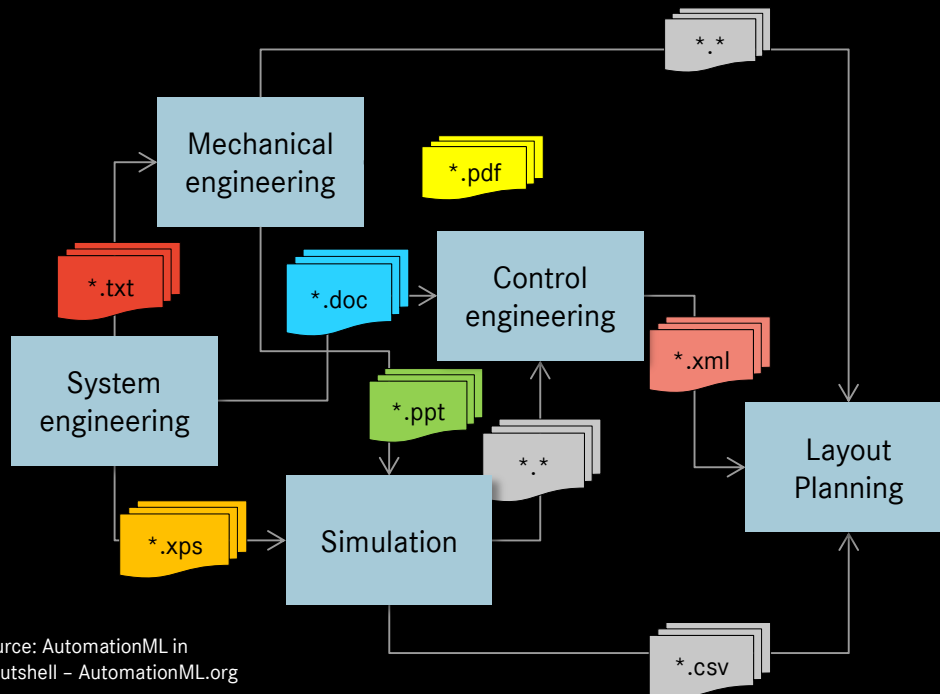
Energy consumption



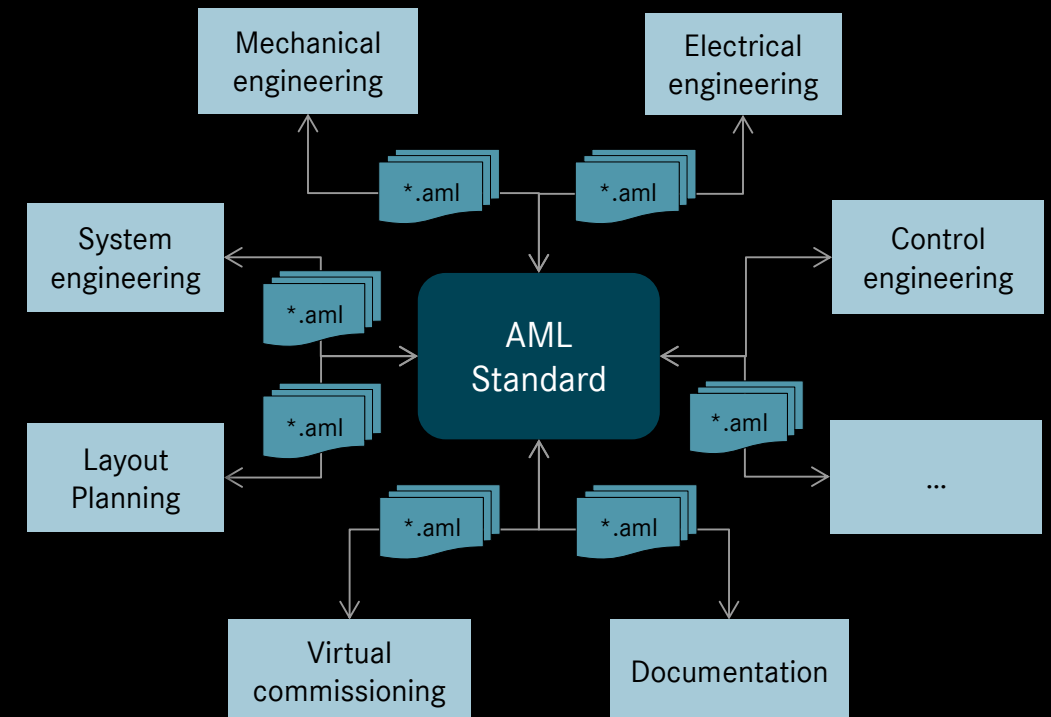
Common language is base for consistent data exchange

Communication needs a common language

AML



Source: AutomationML in a Nutshell – AutomationML.org



From a common language to a common and managed model

Communication needs a common language



Common semantics

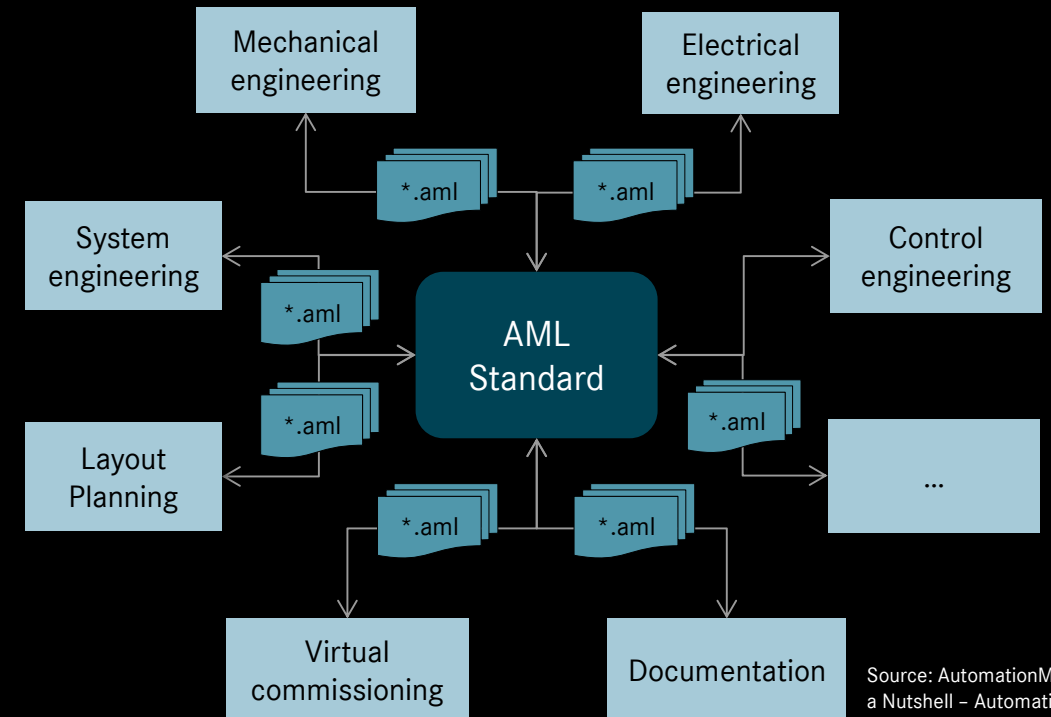
Option to extend

Option to specialize

Neutral view

Enable standardization

Governance required



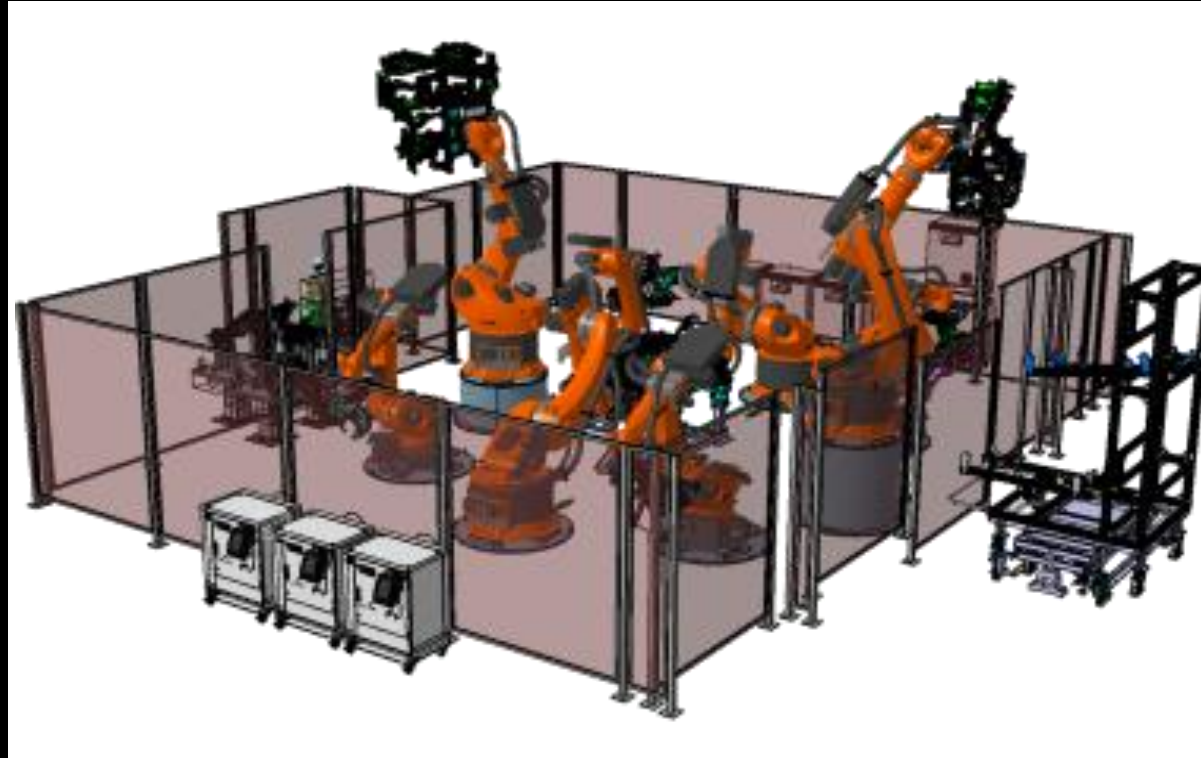
Source: AutomationML in a Nutshell – AutomationML.org

AutomationML needs a common and managed model, too



All aspects of a production line needs to be covered by the model

Resource structure and
functionality

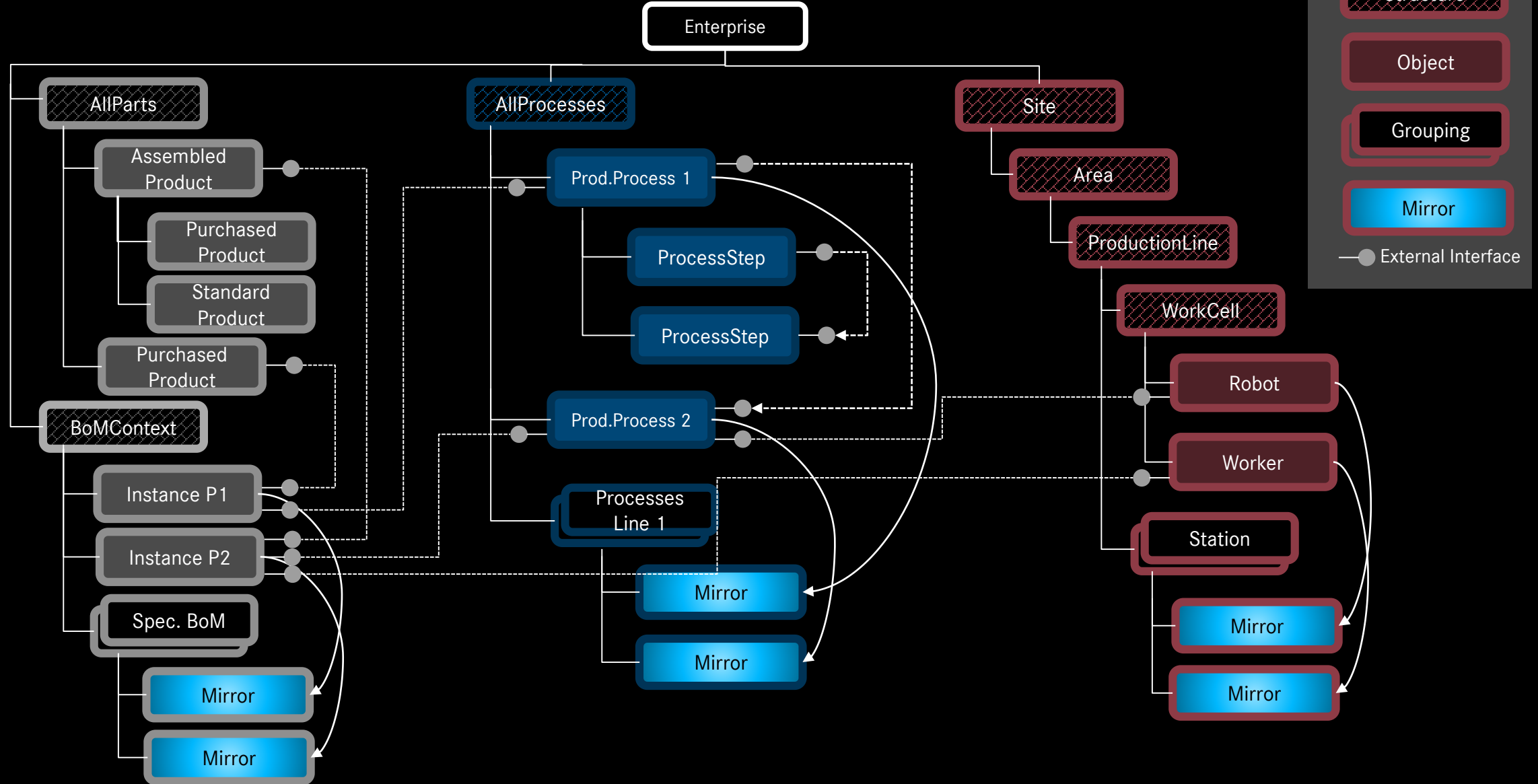


Object oriented and
mechatronic description

Material flow

Technology process data
and manufacturing
processes

Daimler PPR Model



Our planned new solution

Base data

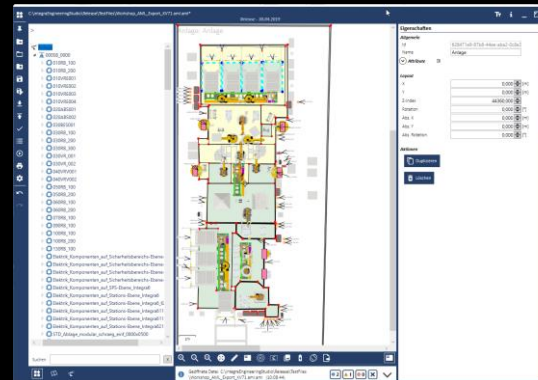
Layout from Digital
Factory



AML

integraEngineeringStudio

extend information



export

Safety layout



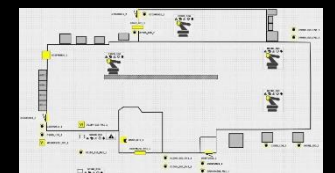
Cycle times



Energy consumption



PLC HMI



TOOL CHAIN

Live Demo



integra Engineering Studio

Thank you

