

The logo for list cea tech, featuring the word "list" in a large, white, lowercase sans-serif font above the words "cea tech" in a smaller, white, lowercase sans-serif font. A thin green horizontal line is positioned below "cea tech". The entire logo is set against a solid red rectangular background.

list
cea tech



PAPYRUS FOR MANUFACTURING: A MODEL DRIVEN TOOLSET FOR INDUSTRY 4.0 SYSTEMS DESIGN AND DEPLOYMENT

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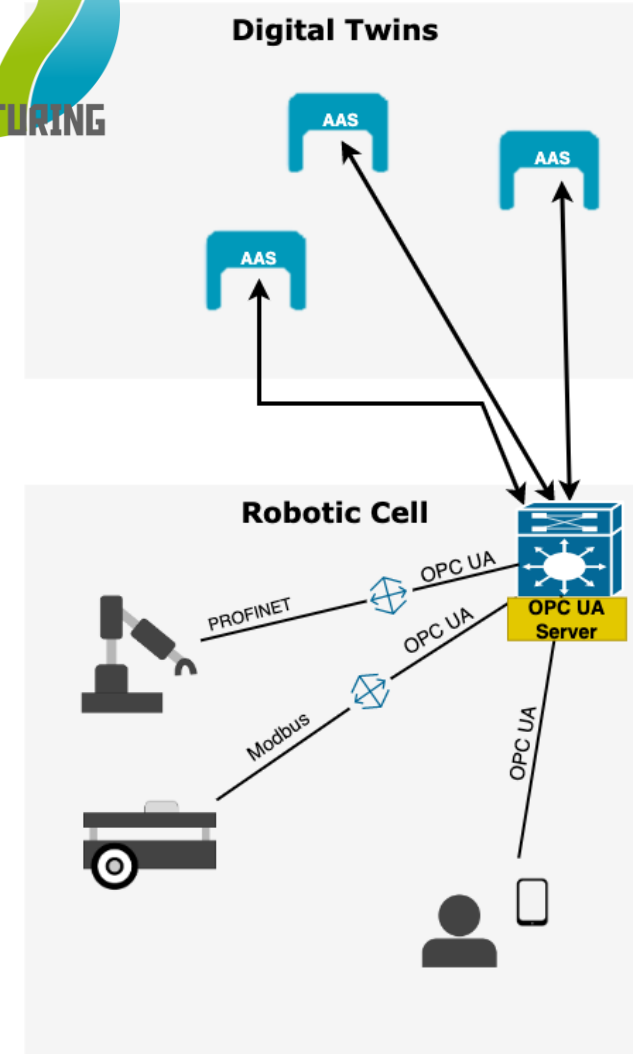


- **Objectives:**

- Digital Twins Design and Deployment
- Supporting the connectivity of manufacturing systems
- Design methodologies and tools for flexible and reconfigurable manufacturing systems

- **Means:**

- Integrating Industry 4.0 standards: Asset Administration Shells, OPC UA
- Automatic Deployment of OPC UA information models
- Deployment of AAS Digital twins through automatic code generation from high level models



Papyrus for Manufacturing
<https://www.eclipse.org/papyrus/components/manufacturing/>

Digital Twin

I4.0 System Supervision

I4.0 System Specification



I4.0 System Design

I4.0 System Deployment



Asset Administration Shells



UA Companion Specification



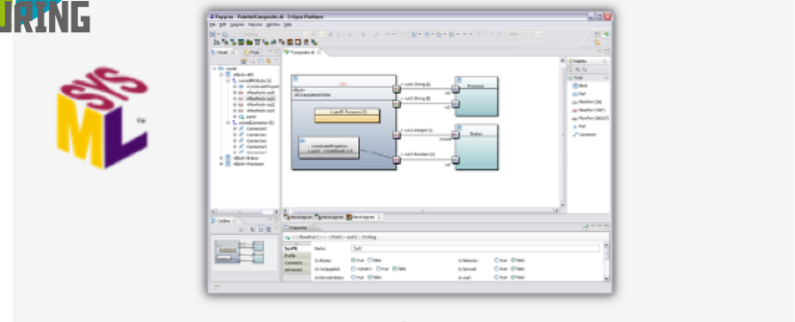


OPC UA Designer

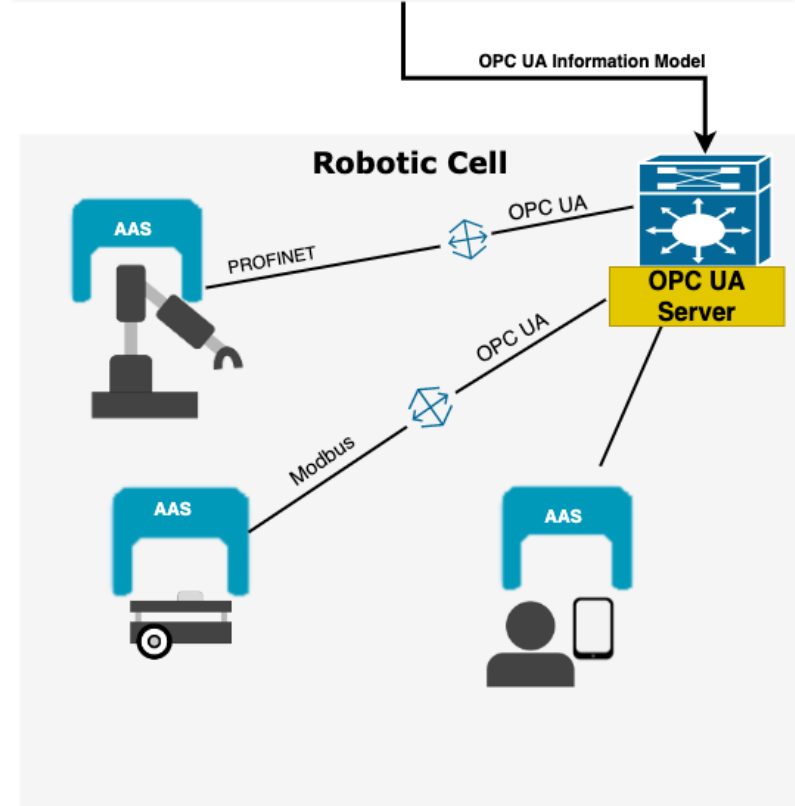
- SysML Modelling
- OPC UA Information models deployments

AAS Designer

- AAS Digital Twin Modelling
- AAS components deployment
- OPC UA connectivity to physical assets



- A Model Driven Tool providing:
 - SysML Modelling Environment for Industry 4.0 systems design
 - OPC UA Companion Specification for adding standardized data models
 - Automatic deployment of OPC UA information models from SysML models





- A Model Driven Tool providing:
 - An Asset Administration Shells Modelling Environment
 - Asset Administration Shells automatic deployment to BaSyx
 - Digital Twins connectivity to physical assets using the OPC UA protocol

