eScop - Industrial Internet: A Facilitator for Knowledge-Driven Manufacturing

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Co-Summit 2015
The impact of Industrial internet (Accenture & WEF)[1]
Knowledge-Driven Manufacturing

Knowledge

Information

Data
How Industrial Internet of Things can enable Knowledge Driven Manufacturing?
Embedded systems Service-based Control for Open manufacturing and Process automation
March 2013 – March 2016

Partners:
eScop is made possible by funding from the Artemis Joint Undertaking.

www.escop-project.eu

**eScop Approach**

- Cyber-Physical
- Service-Orientation
- Knowledge as a Drive

**Layered Architecture**

1. Physical Layer
2. Representation Layer
3. Orchestration Layer
4. Visualization Layer

**Standards**
eScop is made possible by funding from the Artemis Joint Undertaking.

Web standards

BPMN  SVG  BPEL  SPARQL  RESTful  JSON  OWL  HTML5  HTTP  RDF

www.escop-project.eu
Factory shop-floor Things

id: "transferIn",
links: {
  self: http://escop.kky.zcu.cz/s3/RTU/BL1/services/transferIn,
  info: http://escop.kky.zcu.cz/s3/RTU/BL1/services/transferIn/info,
  parent: http://escop.kky.zcu.cz/s3/RTU/BL1/services,
  notifs: http://escop.kky.zcu.cz/s3/RTU/BL1/services/transferIn/notifs
},
class: "process",
count: 0,
lastRun: 0
}
Coordination

Services

Equipment

Knowledge
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Visualization
Summary

• Web Standards can be effectively used for Knowledge-Driven Manufacturing

• Knowledge-Driven Approach offers high re-configurability and adaptability for manufacturing

• Knowledge-Driven Manufacturing enhances human-to-machine and machine-to-machine interactions
Thank you!

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Questions?