Enterprise COllaboration & INteroperability

Winter School on Knowledge Technologies for Complex Business Environments

Ljubljana
November 28 – December 2, 2011
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Theoretical scenario

- Business model for 1-N company

COIN platform

Supervisor portal

ERP portal
(SAP, Baan, Navisio)
Open Source ERP
(Open ERP, Openbravo)

Suppliers portal

Plant floor portal

Services Integration

Enterprise Application Integration (EAI)

Business network

Industrial network

Level 0: Process in real time
Level 1: Control and monitoring of actual process
Level 2: Control and monitoring of automated manufacturing process
Level 3: Discrete Control
Level 4: Continuous Control

Level 0
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Level 4
Level 1
Level 2

SCADA
PLC
MES
ERP

Detailed planning
(control and monitoring of work orders)

Strategic planning
(planning of sales and material requirements)

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The users of ACS shall be divided into two groups:

- Legacy users
- Non-Legacy users

- Legacy users are those users who use one of the legacy systems (SAP, Navision, Baan, Pro/E, Catia, etc.)
- Non-legacy users are those who use only Internet Explorer
Workflows for execution

- Unification process
- Workflow should use various activities
Collaboration workflow

- Process of collaboration workflow integration

- Preview of exported data in PM
Pilot solution

- The model provides a link between the ERP system and COIN services via FTP communication channel.
- For security reasons, not connected directly to the database.
- Transmit only those data needed to communicate with COIN services.
- Ensured the correct syntax required for synchronization.

Disadvantages:

- Safety data
- Control and reliability
Practical case

RUN 3D service

- 3D model in legacy system (Pro/E, Catia,..)
  - export in STL format
  - import in STL format

- 3D model in COIN services
Lesson learned

• Companies in ACS establish the following experience:

  ➢ Increase the effective collaboration between partners in order to improve competitive advantage.
  ➢ Increased value added in the price of the product.
  ➢ Companies reduce the cost of investment in IT technology.
  ➢ Easier coordination and negotiation in the entire supply chain.
  ➢ Attention is focused on optimizing business processes.
  ➢ Improves the process of mutual cooperation.
  ➢ Unified workflows make standardized procedure for exchanging information.
  ➢ Collaboration workflows can be quite good followed by technological IT trend.
Thank you for your attention!