INTEGRATED INTRALOGISTICS CONTROL WITH TRACING

Application for the manufacturing industry -
Real-time control of intralogistics in
human/robot and automated warehouse systems

SUMMARY

There is still little horizontal and vertical integration in the field of intralogistics. Engineering companies, for example, can only assemble parts if the right material is available, at the right time and in the right place, which means there is extensive potential for improvement to be achieved through intelligent networking of all logistics systems and objects.

CURRENT SITUATION

ERP or inventory management systems should, in fact, handle material, warehouse and order management. This does not really happen in practice for many reasons, as there are usually very diverse ‘silo solutions” in place for warehouse management, transport control and intralogistics.

PROJECT DESCRIPTION

• Design and implementation of an end-to-end IT concept for networking all intralogistics systems with the ERP - as well as the APS planning level and the shopfloor
• Use of handhelds, QR, RTLS and MIR service robots
• Unique identification of all logistics objects such as containers, storage bins, locations, etc. by means of QR labels
• Rollout and training support for practical implementation

REFERENCES

www.software4production.de
www. www.inform-software.de
www.iwk.de

IWK’s existing machines, plant and logistics systems are intelligently networked using the IIoT platform from software4production. The use of cost-effective QR labels and existing printers enables unique identification of containers, storage bins, locations, purchased parts and in-house parts. Employees use handhelds to control the entire intralogistics process, data is exchanged online with the ERP. The starting point is picking lists that are planned in Inform, an APS, and implemented on the shopfloor.

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INDUSTRY 4.0 FEATURES

Replacement of traditional data islands in intralogistics by integration using new platform-based digital services in mechanical engineering. As a result, logistics productivity can be significantly increased, so too can delivery reliability, cycle times and flexibility in assembly and production.

STANDARDIZATION APPROACHES

Standardized, reliable integration of machines, plant, warehouse and robots in a global context is key to improving competitiveness in mechanical engineering. The administration shell and uniform infrastructures are necessary for this.