PAPERLESS PRODUCTION

Application for the manufacturing industry

SUMMARY

Protection of the environment and resources by reducing paper and energy consumption. Reduction in cycle times, processing times, more effective use of materials and improved product and process quality.

CURRENT SITUATION

Depending on the product and the specifications, production is done by automated placement machines as well as by hand. Each production order is identified with a unique work order number. At present, all work order documents are printed, even if they are not relevant to the next production step. The monitors installed in the production area give employees an overview of work orders to be prioritized and are not currently used to display the contents of the work orders.

PROJECT DESCRIPTION

All production-related information, documents, drawings, instructions, forms and texts are made available to production staff via digital smart media, in paperless form and specific to each work operation. 
By introducing a LOW code application, various databases are linked interactively with one another. As a result, the employee has a single operator interface via which all relevant information can be accessed and production data/additional production information can be captured.

REFERENCES

www.micronex.de

SOLUTION

Industrie 4.0 approaches in the production process:

- Workflow system for feedback from Production
- Entry of test data into any logs
- Capture of quality data/general information about work orders/capacity
- Real-time acquisition of operating data
- Up-to-date status of production-related documents is assured
- Environmental aspect by reducing paper usage
- Reduction in rework and scrap, timely analysis of quality data
- Avoidance of defects thanks to video and audio support
- Seamless information flow is assured

CONTACT

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STANDARDIZATION APPROACHES

Use of standardized solutions for transferability to other industries. Simple solutions for progressive, scalable rollout in the company.

The following standards are used: 1-D or 2-D codes, Datamatrix codes or RFID tags. Devices are connected to MES and ERP systems via existing interfaces. The use of administration shells could simplify system integration and device management and reduce costs.