SOLUTIONS WITH POWER

MANUFACTURING-IT

Intelligent - efficient - easy handling

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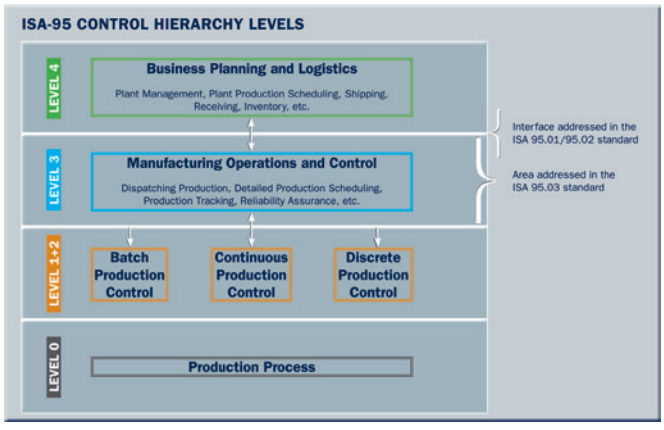
Manufacturing Operations Management

MOM95- for the efficient interoperability between the business and manufacturing levels.

KÖHL's Manufacturing Operations Management MOM95 is the intelligent link between the business and manufacturing levels. MOM95 is based on the current ISA-95 standard, which defines the interface between business and manufacturing with regard to models, activities, and dataflow.

The goal of the IT-integration of corporate management (Level 4) with the control systems (Level 2) is the clear definition of system limits and responsibilities that can be applied in all branches of industry.
The coupling between the Enterprise Resource Planning (ERP) and Manufacturing Operations Management MOM95 is based on standardized data format B2MML.



MOM95 is the sensible development of Manufacturing Execution System (MES) Software.
MOM95 controls and coordinates all aspects of the production process, with a specific focus on improvement of efficiency. MOM95 monitors a number of aspects during the production process, including the production capacities analysis, the storage system and the standard runtimes.

Functional range – more than ISA-95 standard.
KÖHL's Manufacturing Operations Management functional range supports all VDI 5600 guidelines and complements them with additional add-ons:

- ❏ Order Management
- ❏ Detailed Planning and Fine Control
- ❏ Utility Management
- ❏ Material Management
- ❏ Personnel Management
- ❏ Data Collection
- ❏ Performance Analysis
- ❏ Quality Management
- ❏ Information Management
- ❏ Energy Management

User access to the web-application is achieved via standard browser. The integrated user administration administers system configuration and user functionality.

AOS - Automatic Order Scheduling

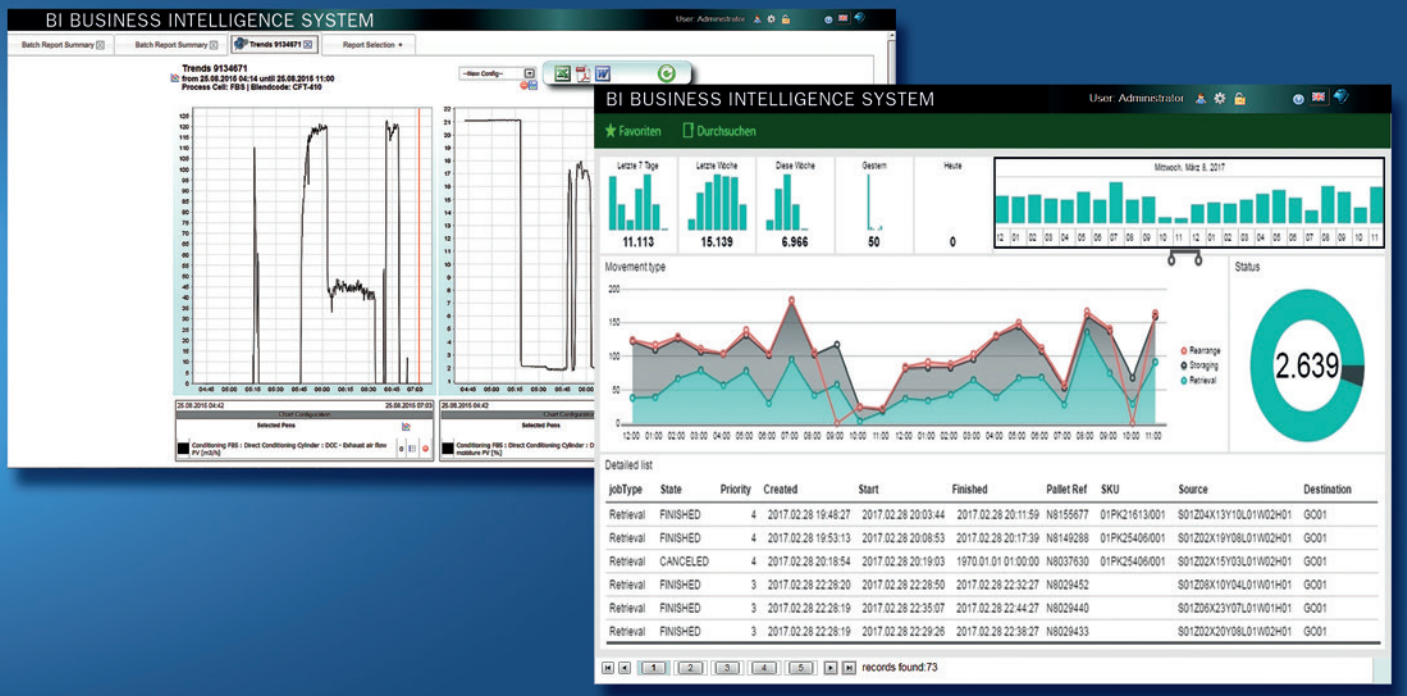
Production planning and control system.

Based on the start and finish dates that are specified by ERP (outline planning), the automatic order scheduling system creates detailed order scheduling (detailed planning) taking into account all the relevant influencing parameters, such as:

- ❏ Delivery dates
- ❏ Order priorities
- ❏ Availability of personnel
- ❏ Availability of resources
- ❏ Availability of material
- ❏ Cleaning and setup times

It is possible to weigh the parameters to a greater or lesser extent through configuration, to achieve an optimal planning result for the respective application. The system supports both hard and soft constraints. The results are displayed as a Gantt diagram, which the operators can then modify manually.

Through the use of the AOS, it is possible to optimize the machine performance without the aid of additional tools.



BI Business Intelligence System

Data Smart Analyzing.

The KÖHL BI System enables a quick and targeted evaluation of all present files in the System. With the help of the editor, users can create reports or define KPIs.

Individual batches can be analyzed, warehouse-data compared and long-term analyzes can be carried out. With the Trend-Function it is possible to graphically display your data in a curve chart.

All reports and evaluations can be shown in a Web browser and require no additional installation by the user.

BI System - Advantages

- ❏ Flexibility through user specified configurations and the creation of templates.
- ❏ Prefabricated data sets enable a quicker evaluation creation.
- ❏ Numerous filter, search and grouping functions allows for more efficient work.
- ❏ Graphic display with zoomable and configurable diagrams.
- ❏ Automatic distribution of reports (Email).
- ❏ Export functions for all files in Microsoft Word, Excel and PDF.

OEE - Overall Equipment Effectiveness

Machine and production data acquisition and evaluation.

In order to make important decisions, all the relevant information must be available. The OEE module provides outstanding support obtaining the required information. The OEE is a tool for collection, analysis and display of the machine and production data as well as reasons for alarms and shutdowns. It offers the opportunity to take measures out of obtained information to improve the situation.

The goal of the OEE module is the timely recognition of deviations during the production process. Only at an early stage suitable measures can be initiated to achieve nevertheless the production goals.

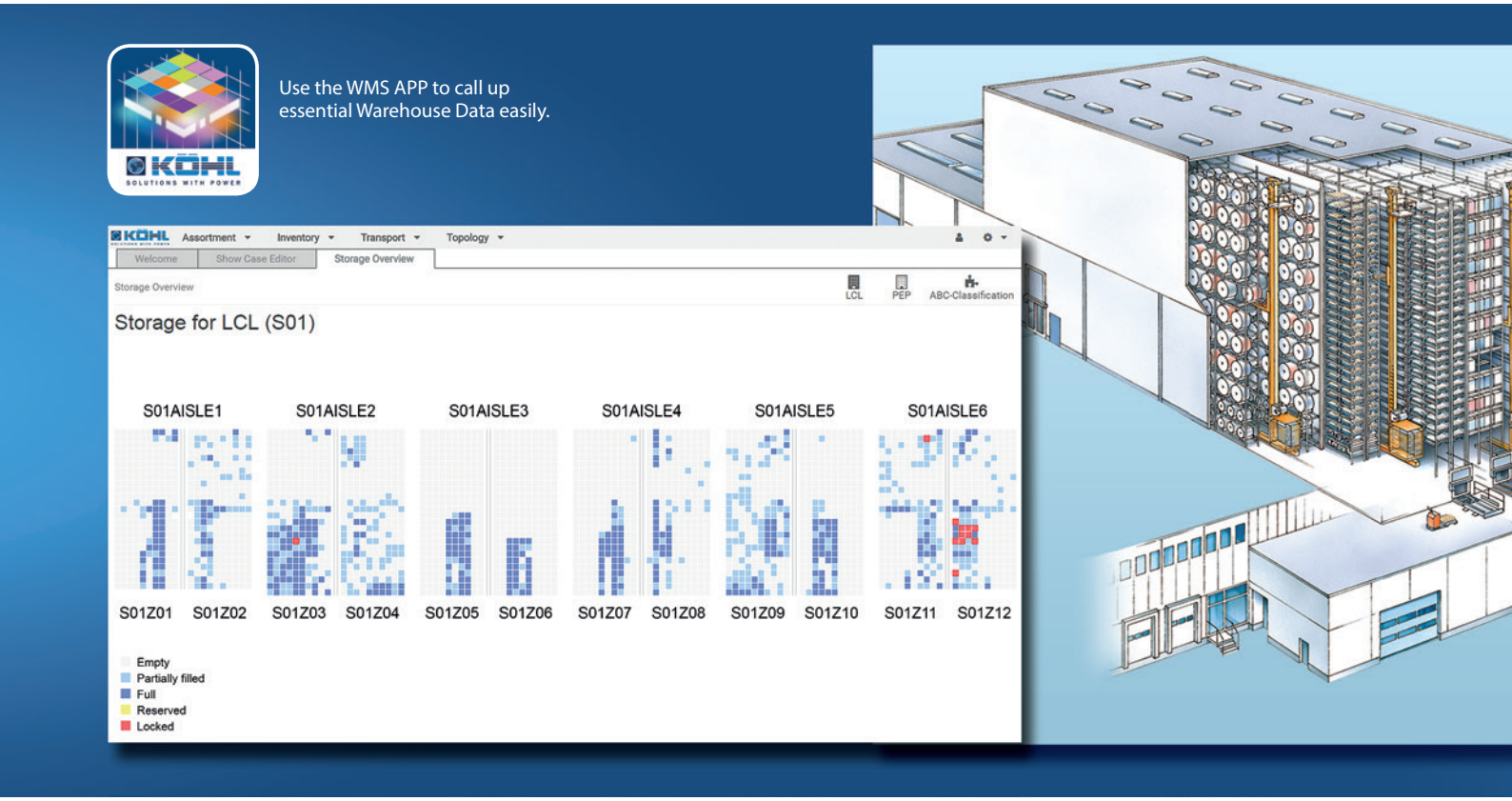
The OEE system acquires
- ❏ Order data
- ❏ Machine and production data
- ❏ Measured data
- ❏ Status information
- ❏ Reasons for alarms and shutdowns

and makes it available for further analysis.

It is possible to acquire the data manually and automatically. Each enterprise has its own method to calculate the Key Performance Indicators (KPI).

Using the Formula Editor, you can create user-defined formulas to calculate custom performance indicators. Calculated KPIs and meaningful evaluations create transparency and represent the necessary data in a clearly arranged graphical form (dashboards).

The views can be created user-defined via Drag & Drop based on predefined elements.



WMS - Warehouse Management System

More transparent warehouses mean more profits.

KÖHL's Warehouse Management System (WMS) supports all types of stores from simple forklift operated block stores through to fully-automated high-stack stores. It comprises a material flow and stock management components which can be used separately or together.

The material flow system manages monitors and optimizes material flows, controls stacker cranes, conveyor systems and peripherals. The Warehouse Management System is responsible for the storage location, the Inventory management and the management of goods receipts, orders, order picking/shipping and dispatching.

WMS control unit

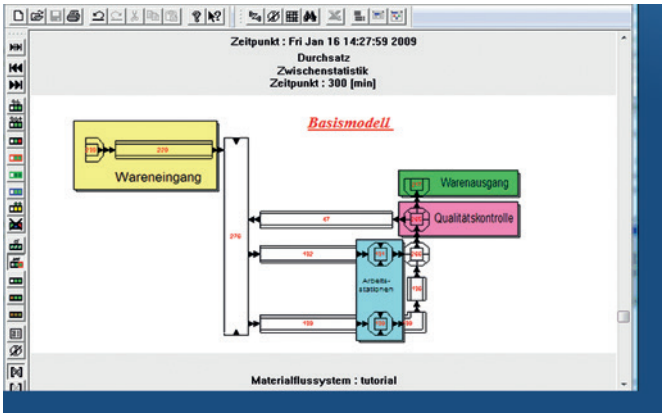
With the WMS control unit, users can define their analyses themselves with the aid of a report designer and design displays and graphics like diagrams.
KÖHL WMS is a web-based application. The benefit to the user is, you don't need any special software installed on your computer.

Material Flow Simulation

Analysis on productivity and functionality before realisation.

KÖHL simulation models reflect proposed or existing production, installation and logistics systems. Even ahead of realisation, simulation offers precise analysis and assessment criteria on productivity and functionality.

Further optimisation is possible, based on simulation results. For KÖHL's clients, this means maximum security for their investment. The Material flow simulation can be linked to KÖHL's WMS System, this makes it possible to realize a complete test of the logistics functions without the existence of the real plant.



FCS - Forklift Control System

Route your forklifts intelligently.

KÖHL's Forklift Control System (FCS) designs your forklift fleet intelligently, managing transport orders centrally and sending them to the mobile forklift terminals automatically, based on priority and availability.
Standard interfaces allow you to integrate FCS in your total system of warehouse management, material flow management and ERP systems.

Intelligent management and documentation of forklift transports, as with goods inwards, picking and packing and dispatch, optimise vehicle need scheduling, reduce empty trips and make tracking easier.
An accurate location of the vehicules allowes path optimation and traceabilty.

Track & Trace

Systems to ensure product quality and traceability.

Batch tracing allows complete transparency and tracing of all the items, products, batches and raw materials in the entire production process. This ranges from the finished goods back to the raw materials that were used as well as verification of which raw material batches were used in which end products (upstream and downstream).

Using intuitive filters, you can represent the desired information quickly and clearly. This information can be exported at any time for further use in a wide variety of different formats (PDF, Word, Excel, etc.).

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Additional information

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01-2019-MANUFACTURING-IT-300-EN