Production Planning and Control

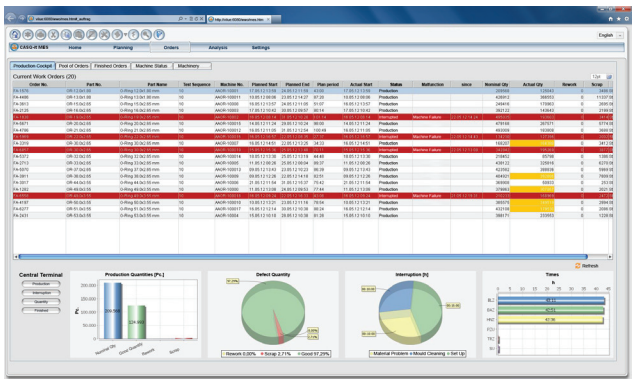
CASQ-it MES

CASQ-it MES records and seamlessly monitors all production-specific data from your relevant processes. The particular strength lies in extensive monitoring functions for machine monitoring and assessment of the overall effectiveness.

- Highly precise planning system for assignment of orders, machines and personnel.
- Clear display of the current production situation in your individual hall plan.
- Flexible reaction to events due to graphical and numerical real-time monitoring.
- Key performance indicators according VDMA 66412-1 to ensure an objective assessment of availability as well as operational performance and to optimize the production system.

Orders and operations will be transferred from your ERP/PPS system to the pool of orders. In production planning you create the optimal occupancy schedule considering deadlines and resources. Planning conflicts are highlighted; the simulation of different planning scenarios shows you the best alternative. In the detailed planning, the graphical user interface provides convenient drag & drop functions.

Pictures of your machines and production halls represent the production environment in your individual hall plan in a realistic way – including graphical and numerical display of machine status, production figures and progress towards completion.



Production Cockpit!

Production data of plant and machinery are transferred automatically according to standard protocols like e. g. OPC. Your machinery is integrated with minimal effort via the interface. Via BDE/MDE terminals you may manually enter good quantity, scrap ratio, rework quantity and down times. Catalog-based entries are used in order to comment upon events.

The CASQ-it MES Key Performance Indicator Cockpit filters the production data of relevance to you by summarizing it in an individual performance indicator overview – in form of tables, scales or graphics. Individually configurable analyses provide data that is tailored to your specific needs.

The key performance indicators (VDMA 66412-1) are the basis for the assessment and definition of objectives in your production processes. Drill-down key performance indicators and analyses enable a targeted causal search in order to identify potential weak points in the production process and to unleash untapped potentials.

The connection of CASQ-it CAQ and CASQ-it MES closes the gap between production and quality management: besides the assessment of the production situation in CASQ-it MES you may directly retrieve quality-relevant information in control charts, Pareto analyses and individual lists.

Reduce costs in production management: CASQ-it MES ensures planning reliability and minimizes downtimes and delays in the production process.

Increase efficiency in your production process: the combination of real-time monitoring and key performance indicators in CASQ-it MES unleashes untapped potentials and thus optimizes production line utilization.

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CASQ-it MES

ORGANIZATION
Clearly structured production management:

- Management of several sites.
- Management of several production lines.
- Online hall plan including separate factory workshop and machine layout.
- Operation via Internet browser.
- Multilingual operation via online language selection.
- Integrated user management.
- Stand-alone operation or interface to the CAQ system CASQ-it.

PRODUCTION PLANNING
Optimal capacity utilization for your production line:

- Integrated resource management for machines and tools.
- Transfer of orders and operations from the ERP/PPS system.
- Clearly structured list of orders.
- Generation of split and collective orders.
- Visualization of multi-level production orders including linked operations.
- Operation sequence planning via drag & drop.
- Graphical detailed planning with variable time horizon.
- Visualization of planning conflict.
- Graphical display of capacity utilization.
- Simulation of various planning scenarios.
- Shift calendar for graphical planning of persons or teams.

DATA ACQUISITION
Seamless data transfer from your machinery:

- Easy configuration of group and machine terminals.
- Graphical and numerical display
  - of machine status,
  - of production figures,
  - of progress towards completion.
- Automatic recording of operating/machine data via standard protocol like OPC.
- Manual data entry (good quantity/scrap/rework, reasons for downtime) via BDE/MDE terminals.
- Notification of production results from partial quantities.
- Quick data entry via touch screen.
- Subsequent (staggered) data entry.
- Recording of failures/malfunctions via catalog.
- Subsequent comment upon events.

PRODUCTION INFORMATION SYSTEM
Complete overview of your production situation in real-time:

- Real-time monitoring via hall plan and production cockpit including:
  - machine status,
  - quantities,
  - assigned orders
- Visual progress control.
- Remaining time calculation.
- Permanent target-performance comparison (time, quantity).
- Machine operating time chart with fault display.
- Event-driven alarm system including e-mail notification for specific events, e. g. for machinery downtime.
- Monitoring of defined limit values.
- Feedback to the ERP/PPS system.
- Print of order papers and labels.

ANALYSES/HISTORIES
Powerful analysis tools for sustainable increase in efficiency:

- Key Performance Indicators according to VDMA 66412-1 and ISO/DIS 22400-2:
  - Employee productivity
  - Allocation ratio, allocation efficiency
  - Throughput rate
  - Utilization efficiency
  - OEE index, NEE index
  - Availability
  - Effectiveness
  - Quality ratio
  - Set up grade
  - Technical efficiency
  - Process ratio
  - Scrap ratio
  - Actual to planned scrap ratio, rework ratio
  - First Pass Yield
  - Fall-Off Rate
  - cm, cmk, cp, cpk
- Production overview including reasons for downtime and production quantities.
- Determination of idle periods.
- Utilization efficiency and downtime analyses.
- Order-specific production time, downtime and set up times.
- Shift, daily, weekly and monthly protocols.
- Drill-down analyses in any depth of detail.
- Individual analyses meeting your specific needs.
- Long-term archive for order and machine data.

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