



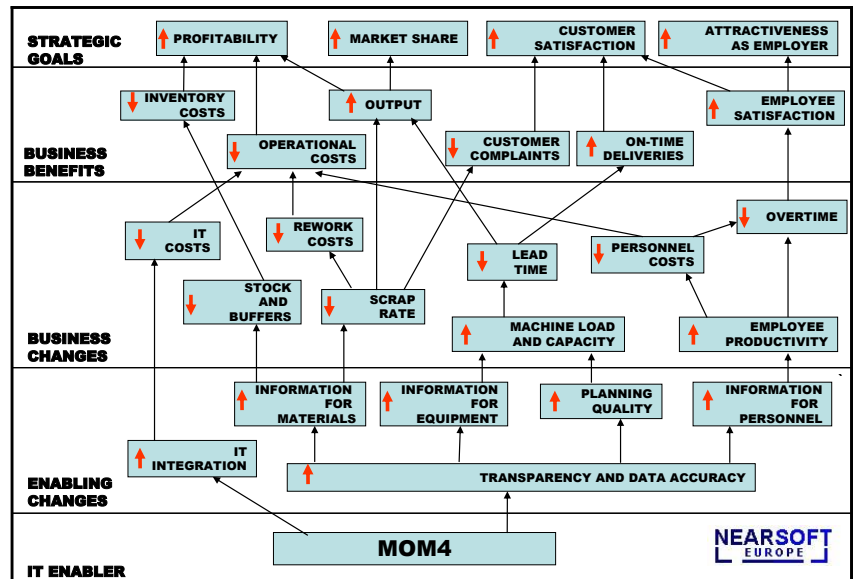
Manufacturing Operations Management (MOM4)

Relevant Information, at the Right Time, at the Right Place, in the Right Form, to the Right People

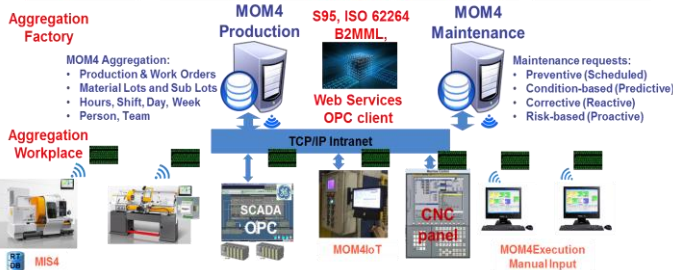
NearSoft Europe is a Swiss-Bulgarian engineering company that provides methodology and technology for real-time collaborative processing of the production information inside an enterprise. Our mission is to improve the competitiveness of our customers by improving their productivity and reducing their operational costs by providing the necessary tools for implementing a true **Just-In-Time (JIT)**, **Lean Six Sigma (6σ)**, **Good Manufacturing Practices (GMP)** and **Industry 4.0** initiatives.

NearSoft's system MOM4 empowers you to reveal the hidden potential of your production process. The expected decrease in expenses is between 10-30% and the ROI is less than one year. Overall, the following improvements can be achieved:

- Increase asset utilization by **10-20%** through better planning, optimization algorithms, decrease of the changeover times and downtimes.
- Improve on time deliveries by **6-10%**
- Decrease lead time with **30-40%**
- Reduce re-works by **5-10%**
- Decrease waste (scrap) with **10%** by "institutionalization" of the production process
- Reduce inventory costs up to **30%**



Industry 4.0 and Industrial Internet of Things

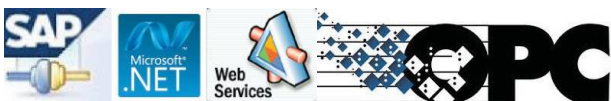


MOM4 is an integrated software solution for Manufacturing Operations Management, based on international standards **IEC/ISO 62264** (ANSI/ISA 95), and supporting industry standards such as OPC, B2MML, etc. MOM4 addresses all operational issues and not only coordinates the processes, but also drills into detail in the following categories:

- Advance Planning and Scheduling (**APS, FCS**)
- Manufacturing Execution Systems (**MES, Data Historian, PMI, OPC UA, IIoT, etc.**)
- Quality Management Systems (**PDM, PLM, QMS, LIMS, etc.**)
- Maintenance Management Systems (**CMMS, EAM**)

The MOM4 solution closes the gap between production planning (ERP, SCM) and production execution (operators, SCADA, PLC, DCS, RFID, barcode readers, etc.).

MOM4 empowers all users, from shop floor operators to executive management, to make real-time actionable decisions throughout the plant and across the enterprise. MOM4 brings benefits to producers by enabling them to react continuously and to operate at optimal condition. MOM4 is production control oriented and specifically designed for managers, planners, foremen, operators, quality inspectors and process engineers in order to support their individual needs in carrying out their daily operations.

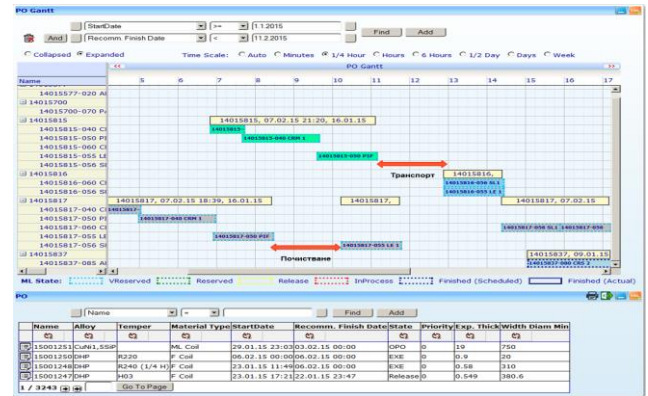




MOM4 is collaborative software with flexible modular approach to collecting, organizing, and distributing production and quality information throughout a processing plant via a **web-based** user interface. The flexibility of MOM4 enables NearSoft to offer a customized integrated solution for each project. The lines of integration are based on technical decisions, including the availability of installed systems, the cost of new ones, and integration of existing systems.

Planning and Scheduling (MOM4Scheduling)

MOM4Scheduling is an advance planning and scheduling system with real time feedback from the production process. **Production routings** are automatically generated with the help of predefined rules. The purpose of this module is to determine what products to make, when to make them, and what resources to use. The system will generate complex routings with **working orders** for each process step with associated consumed and produced **material lots**. Each lot is defined by parameters, such as expected weight, quantity, production time, etc.



Capacity management (MOM4Capacity)

The production capability information is the collection of information about all production resources for selected times and within a selected site, area, process cell, production unit, or production line. Capacity is made up of capability information about equipment, material, personnel, and process segments (work places). MOM4 supports various scheduling **optimization** methods such as bottleneck, minimal set-up time, etc.



Manufacturing Execution (MOM4Execution)

MOM4Execution enables the management of **real-time** production information, instantly available to everybody. It accounts for execution orders (campaigns), production and order **tracking, data collection, down time** management, **quality** and **equipment** management. MOM4 supports manual data entry and/or easy integration with the various SCADA, PLC, and DCS systems through standard OPC interface. The information is grouped and stored into database tables for future use in reports, analyses, etc.



Reports and Analyses (MOM4Reports)

MOM4Reports is a flexible report system that includes **shift** and **product** reports, product genealogy, performance analyses (**KPI**), Statistical Process Control (**SPC**), and many more predefined reports. Using the **MOM4 toolkit**, a user can create and **customize** displays/reports and make them available to other users. Based on the stored data the managers perform statistical and analytical analyses in order to optimize and streamline the production process.

