

Production Portal

More than
just a Manufacturing
Execution System (MES)



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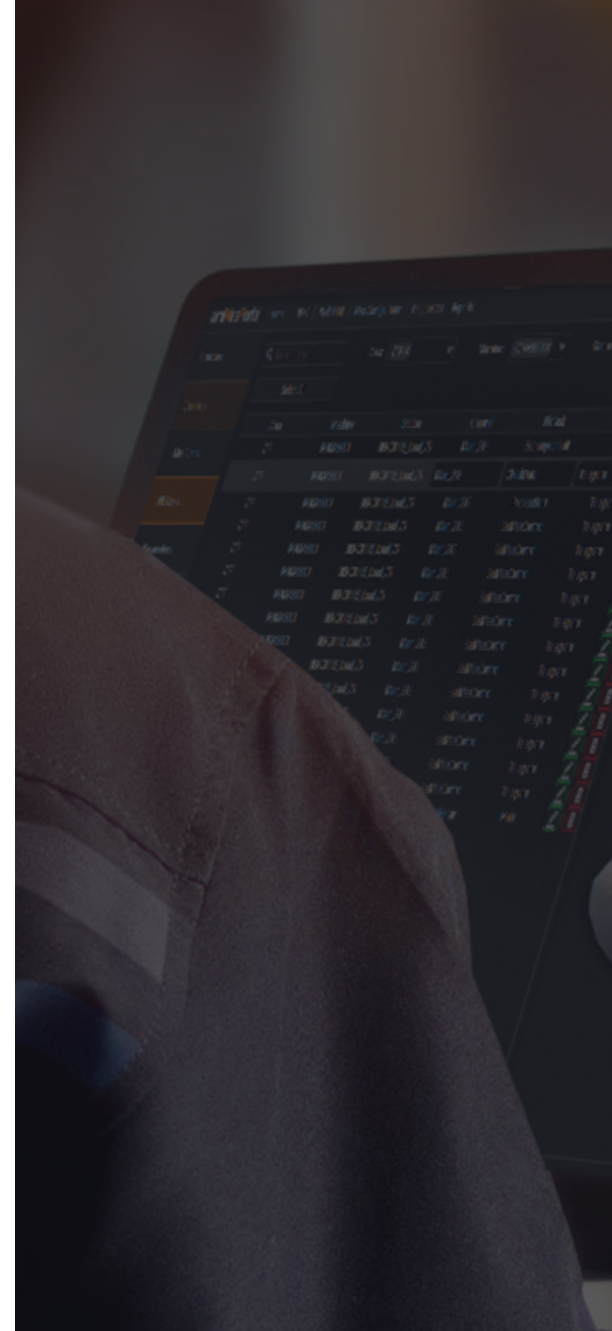
Take your business to the **level 4**

The ever-rising costs of gas and electricity, dynamically changing requirements related to documenting production processes, and an increasingly competitive market. All this forces the search for savings and ways to reduce costs. The recipe for the development of the company in the changing reality is the concept of **Industry 4.0**.

Industry 4.0 is the synergy between machines and IT systems. Let us help you!

The integration of modern IT solutions with machines allows for an effective introduction of changes in production processes, which in turn enables the following:

- Acceleration of production planning.
- Increased production efficiency.
- Reduction of manufacturing costs.
- Detection of bottlenecks and finding space for savings.
- Reduction of cycle times.
- Better human resources management.
- Automation of communication.
- Increased security.
- Minimisation of errors caused by manual data entry.
- Gaining knowledge about how production is going – in real time and anywhere you wish.
- Better decision-making process based on indicators facilitating reasoning.



Production Portal



The production portal is a modern and advanced, yet scalable solution that goes far beyond the standard MES class system (Manufacturing Execution System). It consists of modules, which allow for product traceability, optimal production planning, real-time indication of production efficiency, detection of downtime causes, automatic reporting, visualization and historicization of all data and indicators, as well as traceability from manual stations and guaranteed repeatability of process execution.

The production portal is a modular solution – you can freely select individual elements and combine them with each other.

Traceability

One of the modules of the MES class system is Traceability, i.e. full traceability of the manufactured product. The systems for production genealogy allow (in real time) to collect and combine data from many sources, giving e.g. information on:

What components the product was made of.

What semi-finished products are included in the finished product.

From which supplier, which batch of materials the raw materials come from.

On what machines and under what conditions the components were produced.

Where and when the item was produced.

Which employees were involved in the production process.

Who ordered a given product or a given production batch.

Why is it worth it?

1. Automatic data collection from the production process.
2. Statistical process control.
3. Automatic accounting to ERP systems – connection of production systems with business software.
4. Full insight into current and archived data and the possibility of more efficient analysis.
5. Making the right decisions faster, on the basis of reliable data.
6. Shortening the reaction time and increasing security.
7. Scalability of the solution – the module can be implemented as a stand-alone system or in combination with other tools of the Production Portal.

Electronic manuals

1

It supports the creation of a production genealogy for products manufactured at manual and non-automatic stations. The operator, moving through the positions, delivers quantity, quality, testing and cycle time.

2

It provides the operator with clear instructions affecting the repeatability of processes.

Why is it worth it?

1. Traceability for manual and non-automatic workstations.
2. The collected data facilitate e.g. the optimization of the production process and many more.
3. Guaranteed repeatability of operations executed at a given position.
4. More efficient communication with the production department.
5. Better flow of information about work progress, considering the time of a given cycle and efficiency parameters.
6. Scalability of the solution – the module can be implemented as a stand-alone system or in combination with other tools of the Production Portal.

Planning

Thanks to the solution, you will improve communication between the planner and the operator. The technologist creates production orders and has constant access to them. Information about the order is transferred automatically. The operator starts the order with one click and informs about its completion in the same way. The data on the completed order (dimensions, quantities, cut-outs, OK/NOK number) are available in real time.

Why is it worth it?

1. Interconnection of planning with the warehouse – better use of warehouse resources.
2. Possibility of integration with other systems, e.g. ERP – making business decisions based on reliable data.
3. Optimal production planning – increased efficiency.
4. Smooth communication between planners and operators – faster responses and greater production flexibility.
5. Permanent access to current and archived data.
6. Scalability of the solution – the module can be implemented as a stand-alone system or in combination with other tools of the Production Portal.

Operating status

Gain real-time insight into key data gathered in real time from individual machines and devices, focused on efficiency. While maintaining the highest security standards, you can have access to the data including: production counter, OEE divided into components (availability, efficiency, quality), causes of downtime, clear visualization of the operating status "hour by hour", Pareto charts (TOP 5 most frequent downtimes, longest downtimes).

You can have access to the information on what is currently happening at a production plant that is located in another city, country, or even on different continents!

The data from the application can work with large-size monitors. The boards placed in the machine park can display the following information on an ongoing basis:

Condition of lines and machines.

Quantities that were produced in the context of a given production order.

Production cycle time.

The efficiency of the line.

Downtime data (length, time of occurrence, cause).

Causes of defective products.

OEE in real time divided into components: availability, performance, quality.

Why is it worth it?

1. Better communication and the ability to react quickly – insights into data, in real time.
2. Elimination of paper reporting – constant access to reliable data.
3. Digitization of reporting.
4. Lower production costs and higher productivity.
5. Scalability of the solution – the module can be implemented as a stand-alone system or in combination with other tools of the Production Portal.
6. Prediction of future failures – based on historical failures.
7. Better production planning – thanks to the ability to compare the efficiency between different machines.

Reporting

Using the reporting module, the data from the entire production process is automatically collected, historicalized and presented in the form of clear summaries. The solution eliminates the need for manual reporting. What's more, the following important indicators based on the data are displayed:

Sample data collected automatically:

- Data and production time.
- Production order number.
- Operator and station ID.
- Process parameters.
- Identification of the sequence of processes.
- Product components and tools used.
- Operation completion status (OK/NOK).
- Reason for NOK.

Why is it worth it?

1. Saving time and better management of human resources.
2. Statistical process control.
3. Minimisation of the risk of errors.
4. Greater security – constant insight into data from the production process.
5. Efficient decision making process on business and investments – based on real data.
6. Possibility to find space to optimize the production process.
7. Scalability of the solution – the module can be implemented as a stand-alone system or in combination with other tools of the Production Portal.

Visualisation

The module collects and presents the most important information by means of widgets, charts or progress bars. Based on the collected data, it calculates selected indicators, and after determining the threshold values, it automatically sends a message, alerting you about exceeding the set level.

Why is it worth it?

1. Access to current and archived data in one place.
2. Better decision-making – one look is enough to gain data.
3. A way to find space for savings.
4. Licensing based on the number of measurement points – it doesn't matter how many employees in your company use the system.
5. Flexible and scalable solution – quick implementation for many different types of data. In addition, the module can be implemented as a stand-alone system or in combination with other tools of the Production Portal.



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