

The Key to the Future in Production



**smart
factory**

Manufacturing Execution System

smartes****

What is SmartFactory?

Industry 4.0 and IoT Technology

As well as all CNC, PLC controlled machines in your business, production and operation data of industrial robots with IIoT infrastructure on the basics of collecting, monitoring and reporting in digital environment is an established Industry 4.0 and Manufacturing Execution System (MES) software.

In the light of the experience gained in the IT and automation sectors, SmartFactory software, which has been implemented, analyses the needs of the sector well is a 100% domestic and completely original project.

It has set the machining sector as its priority target, Our software, which is designed to solve the problems experienced by the sector and helps its users to keep their businesses under control, produces innovative solutions in line with customer demands and is an Industry 4.0 partner to its customers on this path.



20 YEARS
OF OUR WORK IS MACHINERY!

6000+

Connected
Machine

20+

Years of
Experience

DIGITALISE PRODUCTION!



Reduce Error Rates to Zero
with Paperless Factories!

Instead of recording the data in your business in the ledger, you can make your work easier by transferring data to digital media and reduce your errors to zero. By obtaining more efficient reports, make the shortest and best way to analyse the status of your business.



Increase Production Capacity
Thanks to Regular Follow-up!

Increase machine production capacities by optimally analysing machine downtimes due to maintenance, quality control and installation.



Calculate Costs Correctly
by Preventing Your Losses!

With the real cycle times that SmartFactory will provide you, calculate the real costs of your business in the most accurate way.

SmartFactory is a unique Manufacturing Execution System that helps you digitalise your business based on Industry 4.0 technology. This system combines production machines with the tasks of employees and provides real-time data flow and reporting on events occurring in the production process.

Why do you need SmartFactory MES?

- ✓ Provides Competitive Advantage
- ✓ Increases Productivity
- ✓ Reduces Costs
- ✓ Improves Quality
- ✓ Increases Capacity Utilisation Rate
- ✓ Increases Employee Productivity
- ✓ Solutions to Bottlenecks



Digital Factory Transformation

The digital transformation process should be managed within a plan. Businesses that want to start digital transformation should first define their vision, understand their capabilities, discover opportunities to launch new initiatives and restructure their operations by making the necessary preparations.

With the impact of rapid advances in communication and technology, it has become a necessity for businesses to keep up with the age. In this process, it is necessary to carry out digitalisation-based transformation activities such as reviewing the ways of doing business and designing new business models. With the sense of obligation to adapt to transformation, managers who manage transformation should combine digitalisation with creativity and innovation, and try to create and present the technology of the future already. The process of adaptation to digital transformation, which is seen as the vision of the future in business management, should be overcome quickly and transformation, which is of particular importance in terms of competitive advantage, should be realised.

The aim of digitalisation is to significantly increase the qualifications and agility of all employees in production, from operators to managers. All administrative In production, data on production processes are collected and measured in real time, and the quality of communication between teams and management is completely reworked. In this way, scrap-free production and the endeavour for stable processes come to the fore.

We add value to your business with SmartFactory.

- It can communicate with new control units without the need for any hardware.
- Installation can be done quickly with plug-and-play infrastructure.
- Collects all your production data at a central point.
- It provides convenience for data analysis of your business and optimisation of processes.
- Improves equipment utilisation in a sustainable way.
- Reports production data in real time in an easy-to-understand format.
- Generates data for early risk detection and problem solving.
- Allows access to all information from mobile devices.
- Can be integrated with your existing ERP system.
- It provides advantages in investment costs since no extra equipment is required.

“Measure what can be measured, and make measurable what cannot be measured.”

–Galileo Galilei

PLUG & PLAY

INSTANTLY MOVE PRODUCTION TO DIGITAL!



No Hardware Needed

No Extra Options Required

Direct Connection to Machines

With its structure compatible with new generation control units, you can quickly integrate all your machines with ethernet ports into the system without the need for any hardware. In this way, saving investment and operating costs, preventing losses can be achieved.

CONNECT DIRECTLY WITHOUT THE NEED FOR EXTERNAL HARDWARE, GET THE MOST ACCURATE DATA IN THE FASTEST WAY!

COMPATIBLE WITH EXISTING SYSTEM

SmartFactory system provides you maximum profit with minimum investment cost. Existing IT infrastructure will be sufficient for the system to work.

No need to invest in a new server.









Compatible with All Control Units and Protocols



Increase Quality and Efficiency by Moving Your Production to Digital with SmartFactory!

Smarten machines, increase efficiency, create paperless factories.

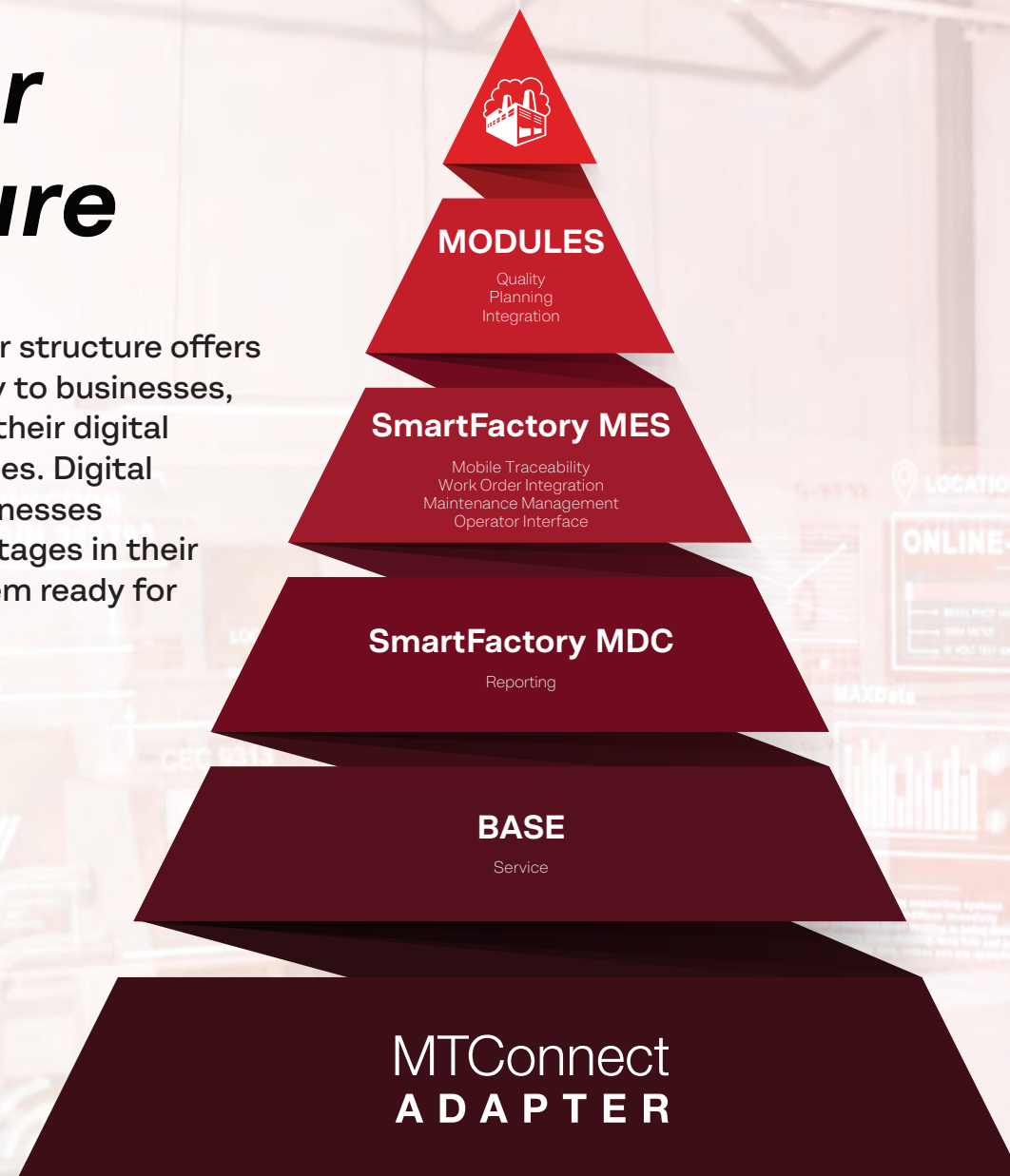
-  Increased Efficiency
-  Operator Screens
-  Easy Integration
-  Historical Reporting
-  Secure Data Transfer
-  Real Time Indicators

+30%
Productivity Increase

Actual cost calculation with
99.9%
accuracy

Modular Structure

SmartFactory's modular structure offers flexibility and scalability to businesses, helping them optimise their digital transformation processes. Digital transformation for businesses By offering great advantages in their processes, it makes them ready for the future.



SMART-MDC



Basic Data Collection Service Module

This module, which forms the basis of the software, performs the task of collecting data from the defined machines and robots at certain intervals.



Machine Licensing Module

It is a licence file created for each brand and model machine in your business, software or hardware, which must be purchased as many as the number of machines.



Production Monitoring and Reporting Module

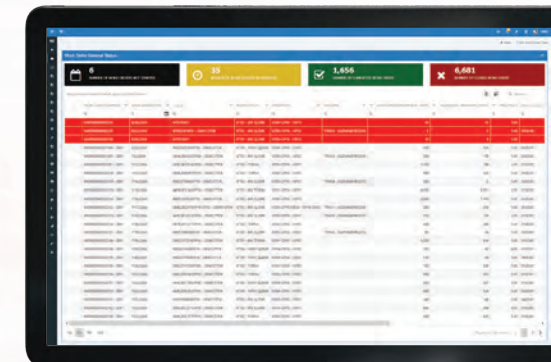
View the status, production capacity and performance analyses of all your machines in real time.

SMART-MES



Operator Interface Module

It is ensured that the operator is included in the process with tablet panels and/or KIOSKs to be installed on the machines. It allows operations such as notifying work orders to the operator, selecting the started work order by the operator, entering the reason for stopping at the time of stoppage (except for the alarm occurring in the machine) and unlimited users. It offers easy and single screen access to the visuals of stock and technical drawings, as well as the management of processes such as quality control and maintenance.



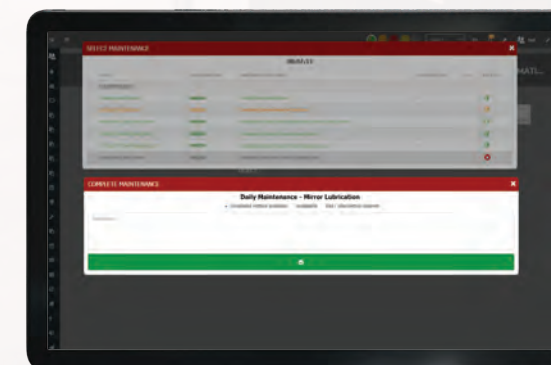
Work Order Integration Module

With this module developed for companies without ERP system, work orders can be created via SmartFactory. Technical drawing and operation details of the work order can be uploaded to the system and these orders can be sent to the operators in a paperless digital environment.



Mobile Traceability Module

All data, instant situations, reports and analyses of your business can be accessed from your computer, and you can remotely control your business from your mobile phone, tablet, even if you are not in your facility, and create special analyses for yourself.



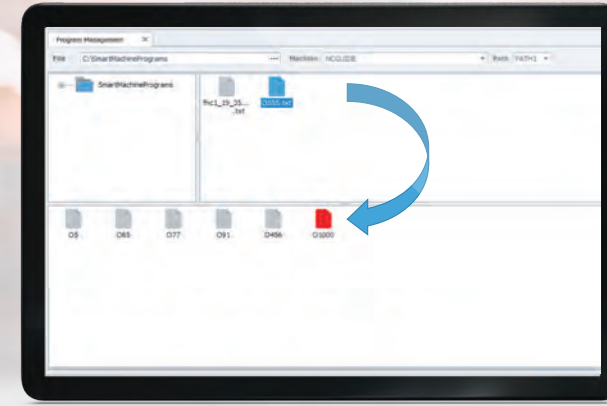
Maintenance Management Module

Track the daily, monthly, annual maintenance and controls of your machines in your business in a digital environment and see the reports and details. Before the operators start production, if there are routine maintenance and controls of your machine, maintenance notification is instantly displayed on the operator screen, so the operators perform the necessary maintenance and controls of your machines in order without forgetting them, and production starts when all maintenance and controls are completed.



Monitoring and Reporting Module

Monitor the status, production capacity and performance analyses of all your machines in real time. In this way, instant information about all processes in production can be obtained. Daily, weekly, monthly reports can be obtained and OEE analyses can be made. Analyse faults/stops and create your own production reports.



Program Transfer Module

By collecting your part programs in a single centre, transfer your programs from this centre to your machines. In this way, situations where the machine memory is insufficient will be eliminated and you will not need intermediate equipment such as cards and USB sticks. Stock - CAM programmes defined on operation basis are automatically transferred to the machines. Wrong programme prevents selection. Provides programme backup.



ERP Integration Module

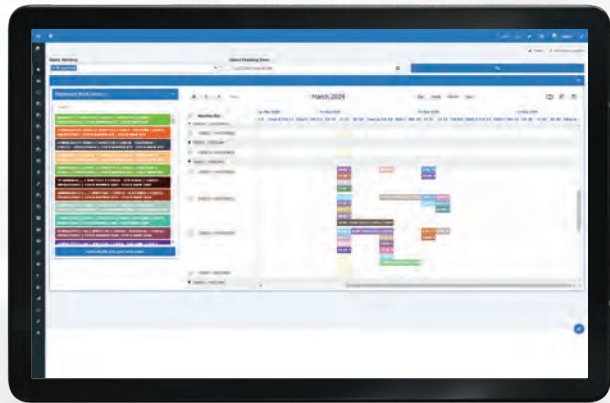
Integration with existing ERP system in your business can be completed in a very short time. Work orders created in ERP are transferred by the system to the tablets placed in front of the operators.

Share the technical picture of the work and operation cards with operator in digital environment.



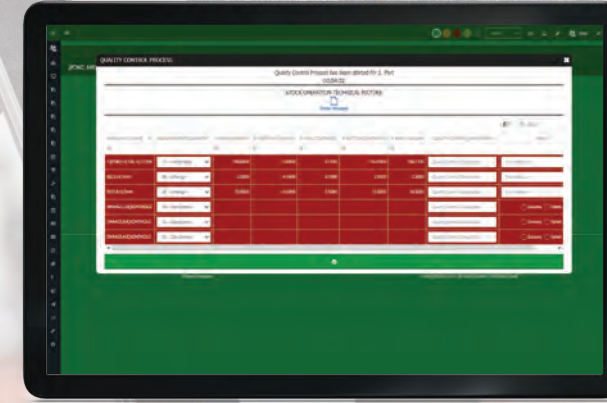
Notification Module

In case a situation occurs in the scenario you specify, you can receive information e-mails and information messages. For example, If any of the machines remains in alarm for more than 10 minutes, you can send an information message to the maintenance department via e-mail and Telegram.



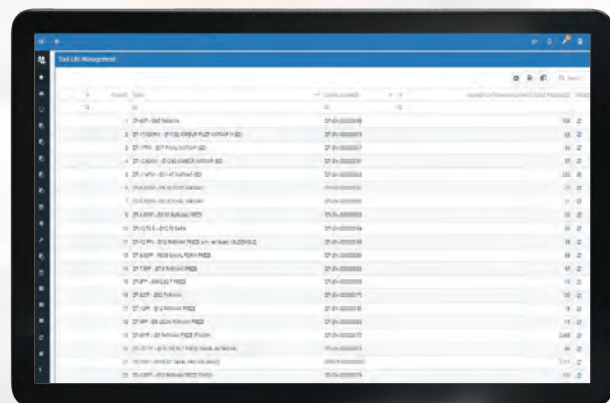
Production Planning Module

Planning module allows you to plan the works in your factory on a daily, monthly, yearly basis with drag and drop logic and sort your work orders. The system will automatically notify you in case of delays. This module, which also takes into account the problems that may occur, makes predictions about the delivery date thanks to artificial intelligence technology. Work orders can be easily planned by drag-and-drop or automatic work order planning.



Quality Control Module

Manage quality control processes in front of the machine or in the quality control department in a digital environment. Periodic controls can be defined with pictures on the basis of stock code and operation, and when the periodic control time comes, you can issue a warning in front of the operator. In this way, you can easily provide the operations you do with paper in digital environment.



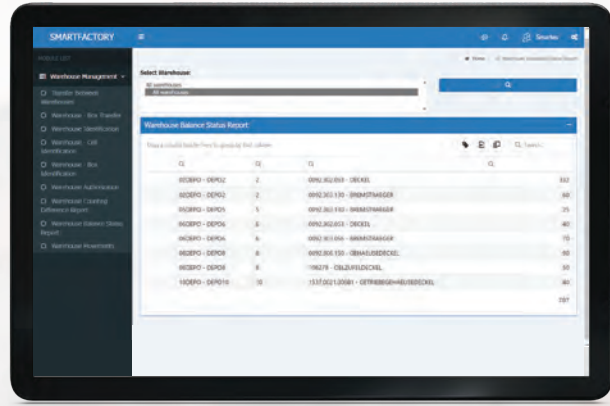
Advanced Tool Management Module

With this module, which allows you to track the life of your cutting tool inserts and analyse their performance, you can analyse the inserts, which are one of the biggest expense items in your business. Cutting inserts can be given life and you can inform the operator when the life is over. Create barcodes for the tools coming out of your warehouse, you can control the inventory of all the tools in your factory from where you want.



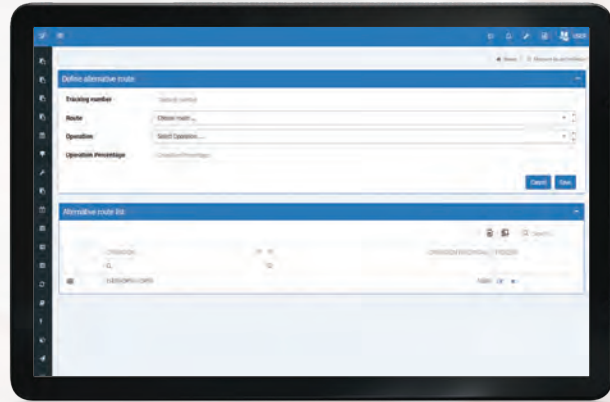
Power Consumption and Carbon Footprint Calculation Module

Analyses reports of the power consumption of the machines connected to the system can be viewed on a job basis, daily, monthly, yearly or in a selected date range. Calculate your energy consumption per work order or per produced part, calculate your energy cost per part. Also you can save nature . You can also track and calculate your Carbon Footprint to help protect nature.



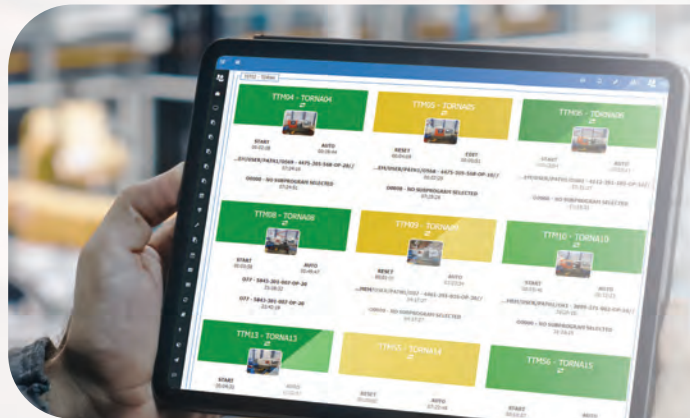
Warehouse Management Module

Manage the warehouse and shipment system of the goods obtained from the production in your factory effectively and efficiently, establish and organise the connection between the sender and the receiver in the flow of goods. By controlling the events that take place in the warehouse, problems that may occur in the supply process can be prevented, as well as preventing additional costs caused by excess or missing stored products.



Route Management Module

Route, necessary for the realisation of a production is the list that specifies the order in which the operations will be processed. It is specified which operations the materials will go through and the order specified in the route is used during production. The work orders in which the operations created within the scope of the Route Management module are executed are very important in terms of production costs.



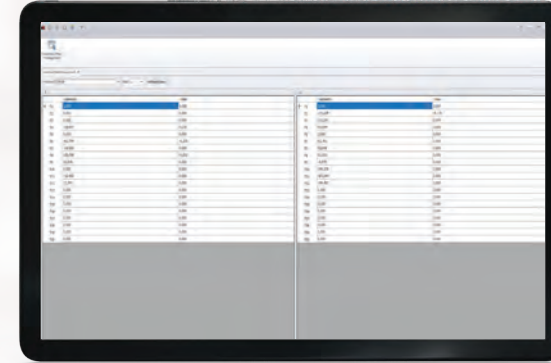
FACTORY AT YOUR FINGERTIPS!

Track and Manage Entire Operation!

**Track
Production
From Everywhere!**



SMART-SPECIAL



Tool Offset Management Module

Designed for robotic cells and remote systems to prevent tool-related losses in your business, this module allows you to remotely manage, report and analyse the geometry and wear information of the tools even if you are not at the CNC machines.



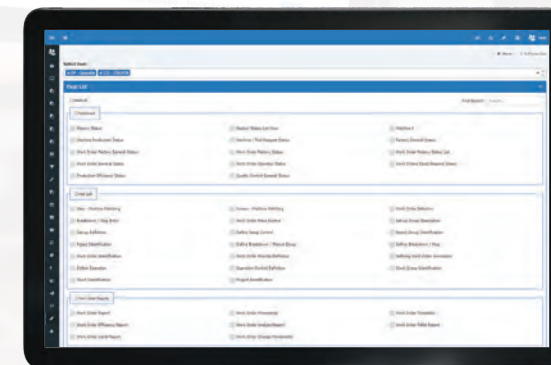
Cycle Analysis Module

With this module developed for mould manufacturing companies, you can analyse long cycles. With the help of this module, which informs you about the necessary improvements, the processes called "air cut" that prolong the cycle times are minimised. It shows the real availability percentage of the machine by calculating the idle time and the processing time of the production machines separately.



Measurement Analysis Module

With this module designed for robotic lines and mass production enterprises, the parts coming out of your CNC machines are measured with any measuring device that supports industrial communication. The measurement result is recorded by SmartFactory. According to the measurement result, feedback is made to the CNC and wear or offset data is transferred to the relevant tool. In this way, quality problems are prevented and operator-related errors are reduced to zero.



User Authorisation Module

This module gives permissions to the personnel working in your business according to their competence level. With this module, personnel cannot perform any operation without authorisation. In this way, machine overlapping, unconscious programme interventions and incorrect workpiece adjustments, which are very common in enterprises, are prevented.

Example Production Reports



Live Machine Status Screen

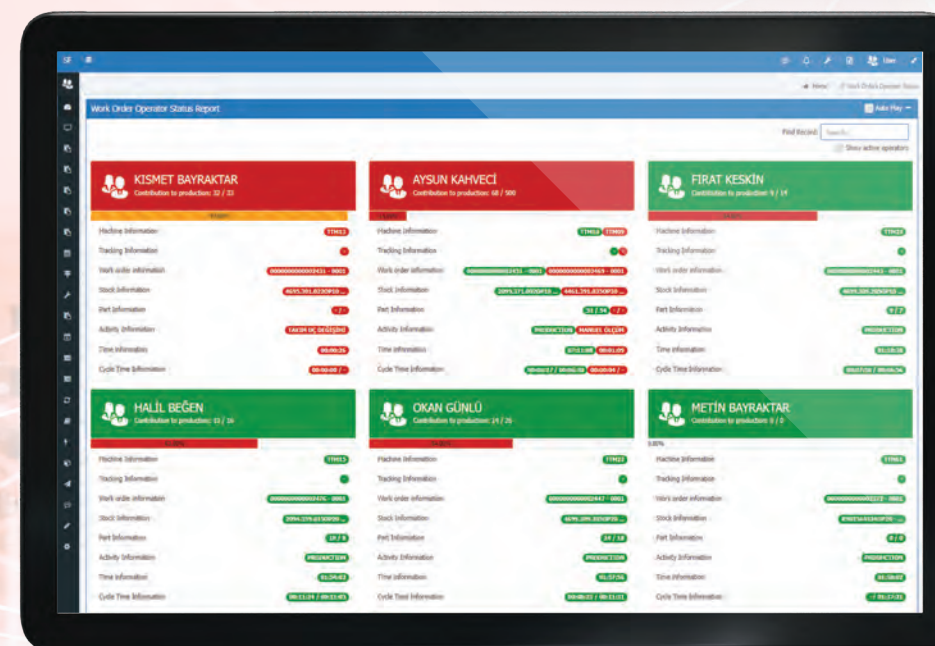
Machine Alarm Reports



Machine Cycle Detail Report



Live Operator Status Report



Machine Production Report



Instant Machine Status



How Can We Help You?

- ✓ Do you need Industry 4.0 transformation in your business?
- ✓ Do you want to save costs in your production and increase your productivity?
- ✓ Do you want to smarten your factory?
- ✓ Are the OEE values in your business below the standards?
- ✓ Do you need to communicate with the machines in your factory?
- ✓ Do you want to collect data from production?
- ✓ Do your tool costs constitute the majority of your operating costs?
- ✓ Have personnel-related errors started to disrupt your production?
- ✓ Do you need integration of production with your ERP system?
- ✓ Are you experiencing disruptions in quality control processes?

with SmartFactory



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