Fagor Digital Suite

COMPLETE MACHINE DIGITIZATION SOLUTION

FAGOR AUTOMATION

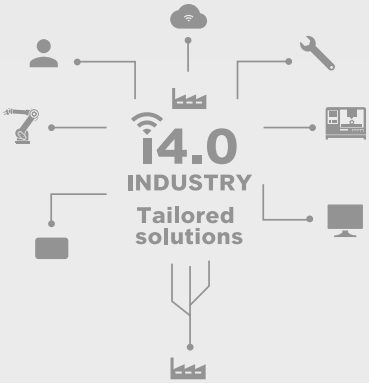
Open to your world

DECISION MAKING MADE SIMPLE

FAGOR DIGITAL SUITE

Fagor Digital Suite is a modular digitization platform that interconnects the machines to company's production and management systems, through hardware and software infrastructures.

This digital solution captures all necessary data and intelligentally transforms it to facilitate decision making, resulting in a more efficient and profitable production process.



MAIN FEATURES

Platform
Designed to be used by both end users as well as machine tool manufacturers.

Solution
A modular system that's flexible to the unique needs of every client:
- Monitoring
- Planning
- Administration
- Teleservice

Multibrand
Compatible with the major CNC system brands in the industry.

Multiprotocol
OPC UA, umati, MQTT, ModbusTCP, FINS, MTConnect, SQL, etc.

Interoperability
Connectable with the rest of the plant's production systems.

HMIs.
Standard or customized

Fast implementation
Scalable in equipment and features.

Non-intrusive
Installation on machine.

Cybersecurity
ISO/IEC 15408:2009,
ISO/IEC 18045:2008 and Common Criteria.

SMARTBOX

The system incorporates a Smartbox device which, in addition to extensive connectivity, provides the following advantages:

- It complies with the most demanding cybersecurity certifications, isolating the machine.
- It is the basis from which software updates (Windows, platform, etc.) can be made.
- It has the capacity to connect with other production systems, sensors, PLC, the cloud, etc.
- Allows a non-intrusive installation or deployment on the machine.
- It acts as a buffer in case the connection to the network is lost.
- Enables the conversion of data to different protocols.
- Models with / without Wifi, with CPUs up to i9.

ISO/IEC 15408:2009
ISO/IEC 18045:2008
COMMON CRITERIA 3.1 r5

Monitoring for USERS

AIMED AT MACHINE SHOPS AND MACHINING PLANTS REQUIRING INDICATORS TO IMPROVE THE AVAILABILITY AND EFFICIENCY OF THEIR MACHINES.

Monitoring

The modules that integrate the standard user offer provide valuable information in real time and history for selectable periods. The administrator is easily able to analyze business intelligence and make comparisons according to the different machine and process variables (customer, order, schedule, shift, operator, etc.).

Reports

Allows the configuration of periodic reports, oriented to different company profiles: Management, Production, Maintenance, Quality, etc.

MANAGEMENT MODULES FOR END USERS

PRODUCTION
- Part program
- Execution time
- Tool usage
- Parts cost
- Etc.

AVAILABILITY
- Machine status
- Downtime causes
- Machine alarms (programmed or errors)
- Etc.

EFFICIENCY
- Parts counter
- Actual vs. theoretical production speed
- Etc.

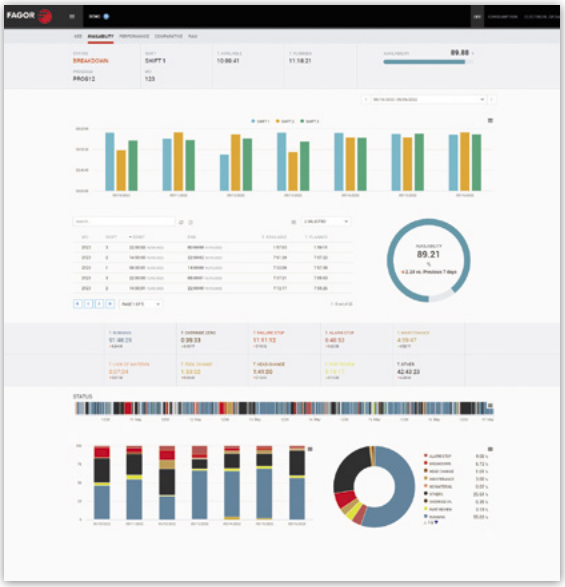
QUALITY
- Good part / bad part
- Quality costs
- Reason for scrap
- Etc.

ENERGY
- Energy consumed per axis, spindle, tool, part, etc.
- Voltage, current and machine power
- Power factor
- Etc.

MAINTENANCE
- Alarm management
- Scheduling notifications
- Predictive maintenance
- Etc.

What do you get?

- The capture of machine information and monitoring.
- The availability of real-time and historical indicators for decision making.
- Improvement in machine availability and efficiency.
- Control of productivity by plant, machine, operator, shift, customer…
- Tracking of quality indicators.
- Reduction in downtime and unplanned stoppages.
- Optimization of production speeds and prevention of interruptions.
- Improvement in maintenance planning.
- Management of warnings and alarms.
- Reduction in energy costs.
- Improved competitiveness.



Planning for USERS

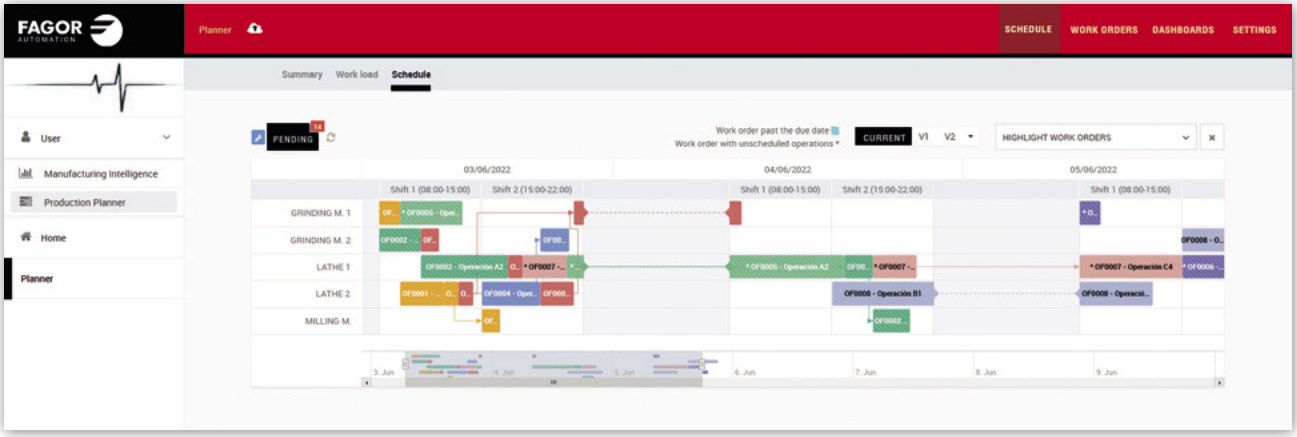
THIS MODULE ALLOWS YOU TO PLAN AND DISTRIBUTE JOBS IN AN AUTOMATED AND INTELLIGENT WAY.

Planning

The project planning module allows the user to plan, distribute and control the manufacturing production process on the available machines, taking into account the operations that each machine can perform, its availability, workload, etc.

Tools

- Production management.
- Planning management.
- Machine-side document management.
- Bond management.
- Incident management and scheduled alerts.
- Machine maintenance management.



What do you get?

- Quick and easy planning with agile response to changes.
- Overview and full control of what is happening on the shop floor (KPIs).
- Ability to offer customers more accurate delivery times.
- Allows the integration of production resources and external services.
- Integration with complementary production systems, ERP, MES, CRM, etc.
- Increased efficiency of plant resources.
- Reduction in costs and improved profitability.

And the operator?

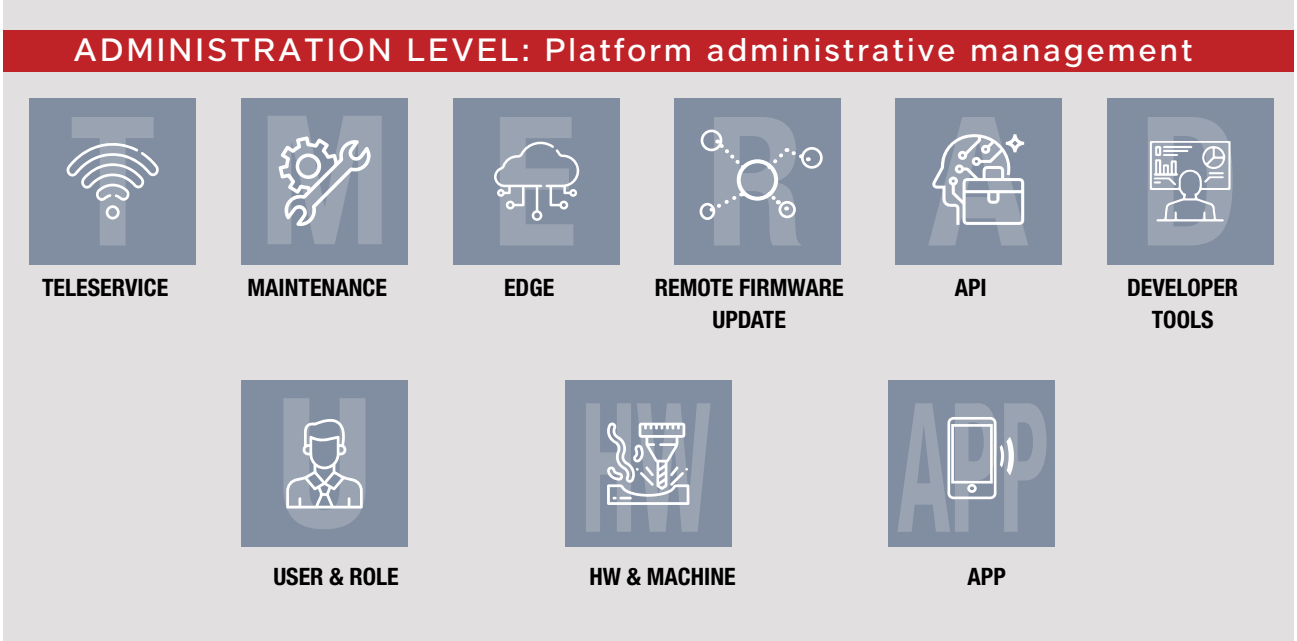
- User-friendly application that is deployed in the factory (workstation).
- The operator has system authentication.
- The operator receives a list of the operations planned for their shift.
- Interaction with the application to flag the operation in progress.
- Records reasons for machine downtime, etc.

Solution for MANUFACTURERS

ORIENTED TO MACHINE TOOL MANUFACTURERS WHO WANT TO MANAGE THEIR PROPRIETARY ASSETS AND PROVIDE EXCLUSIVE SERVICES.

Management levels for manufacturers

- Incorporates all management modules for users.
- Customized virtual cloud to manage assets, access, users, etc.
- Teleservice and maintenance: Allows remote access and diagnosis, alarm and warning management, etc.
- The platform enables remote updating of firmware, PLCs, etc.
- Development and administration of applications in your machines, with a global or individualized management, and that can be oriented to new functionalities, maintenances, etc.



What do you get?

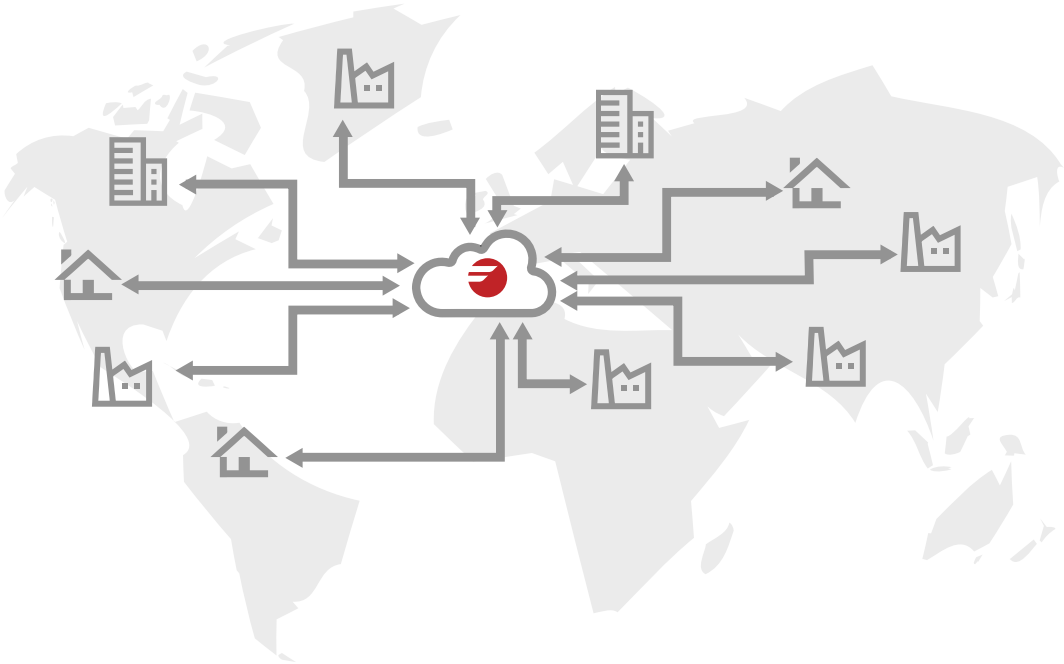
- All the tools available to users.
- Proprietary multi-language platform.
- User management, various profiles and accesses.
- Management of workshops, production lines, etc.
- Smartbox and machine management.
- Statistics with general and individual (machine, project, etc.) information.
- Interoperability with various data sources and protocols.
- Definition of machine templates and screens.
- Design of new screens from scratch.
- Definition and management of alerts and alarms.
- Maintenance management: parts, spares and services.
- Telediagnosis and teleservice.
- Remote update of firmware, PLCs, etc.
- Development of applications (API available).

TELESERVICE

AIMED AT MANUFACTURERS AND DISTRIBUTORS WHO NEED TO ACCESS AND INTERVENE IN THEIR REMOTE EQUIPMENT IN AN EASY AND SECURE WAY.

Remote support solution

- Safe and simple remote support for machines.
- Remote update of programmes, PLCs, software versions.
- Real-time machine information.
- Reduction in diagnosis and stoppage times.
- Enables optimization of stocks of critical spare parts.
- Savings on travel costs.
- Improved management of technical resources.
- Support for a larger number of customers.
- Management of access permissions.



Multi-brand connectivity

- Compatible with most remote connection systems.

- Use of standard communication protocols.

Secure solution

- Triple cybersecurity certification: ISO/IEC 15408, ISO/IEC 18045, and CommonCriteria3.1 r5.
- Encrypted communications.
- Authentication and authorization procedures.
- Firewall.
- Proactive defence mechanisms.

Other languages are available in the Downloads section from Fagor Automation's website.

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Fagor Automation holds the ISO 9001 Quality System Certificate and the CE Certificate for all products manufactured.

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