



FST
FOM software

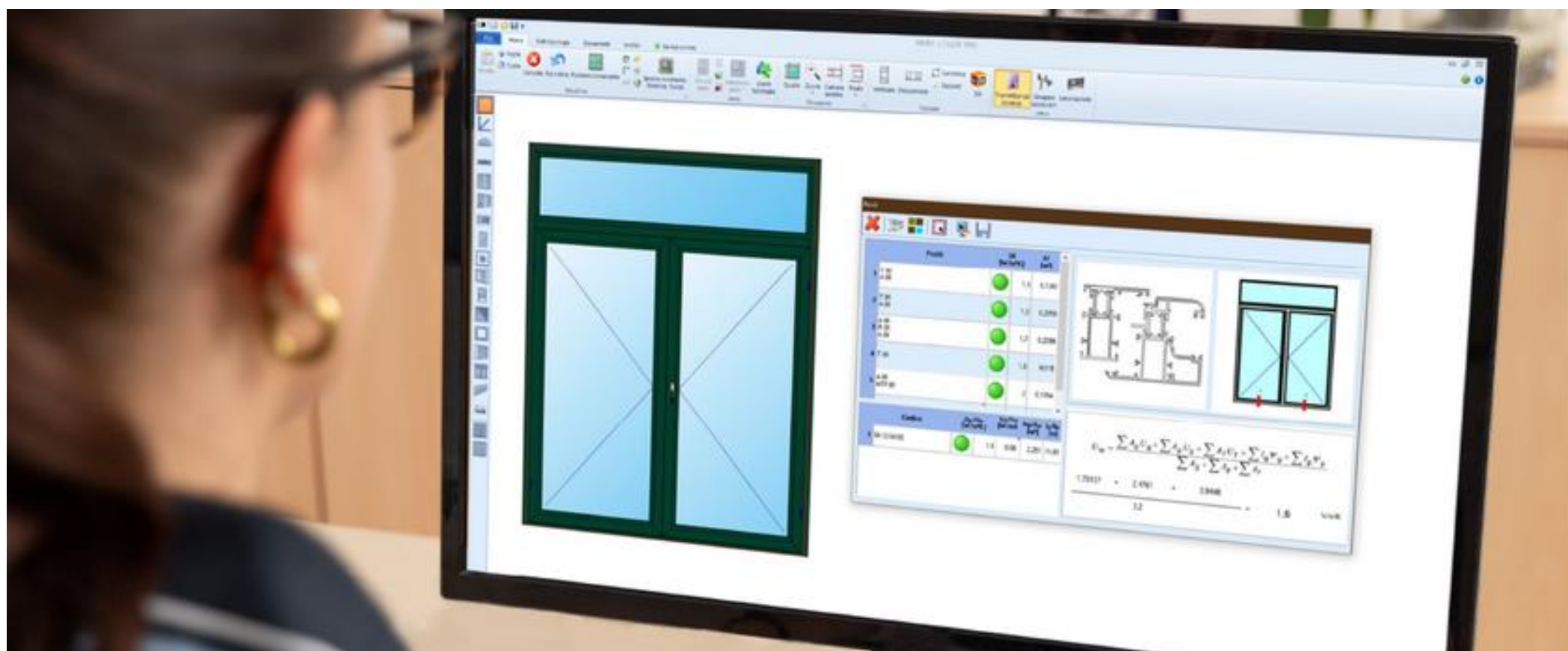
IMPLEMENTATION CONSULTING



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Introduction



FST is a leading provider of **software solutions** for companies engaged in cutting and processing aluminum and PVC profiles.

Its portfolio consists of multiple products supporting various business functions. Given the heterogeneous nature of manufacturing environments, the solutions are designed as general-purpose systems, based on open communication standards, and able to interface with different software applications and machinery from various industry manufacturers.

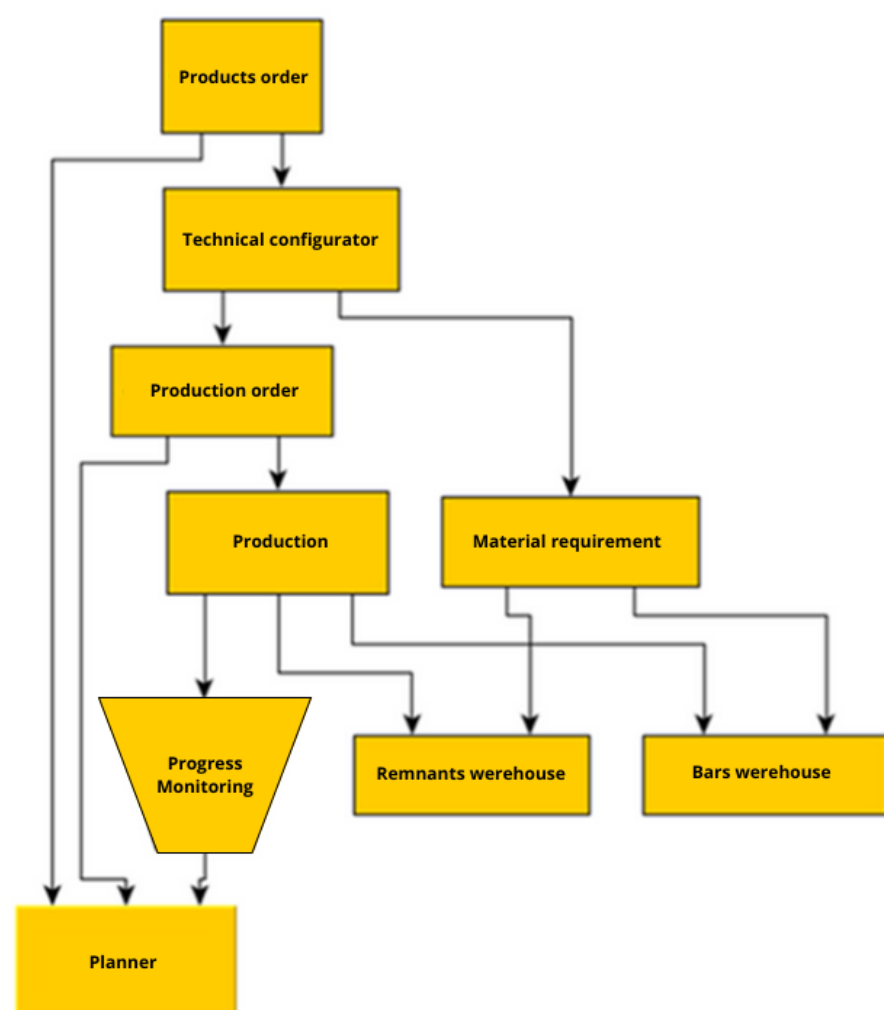
Drawing on more than twenty years of experience, FST offers **consulting services** aimed at the digitalization and optimization of business processes.

The objective of this project is the **digital integration of extrusion cutting and machining processes**. The approach is based on analyzing the client's production environment from the perspective of digitalization and integrated production, in line with Industry 4.0 principles. The project provides the missing components required to establish a complete digital workflow, tailoring the solution to the company's specific objectives.

The initiative aims to transfer FST's best practices in digital manufacturing and adopts a comprehensive approach, covering all or selected business functions, while integrating—where feasible—existing technologies.

The final deliverable will be a tailor-made Road Map for digital integration.

Objective flowchart



Sales

The customer enters an order of items with the related quantities, obtaining a production order for the parts based on a technical configurator.

The type of configurator depends on the company's product and manages both fixed-dimension items and parametric-dimension items—a common requirement for companies manufacturing products with extrusions.

Specializations

- Automation of customer order reception
- Selection of the technical configurator
- Automation of order submission
- Transfer

Technical Department

The technical department designs the product. The technical configurator used for this task can be specific to window and door frames or, in a more general case, can import data from a 3D CAD system. The objective, in any case, is the automatic transformation of the product drawing into a BOM (Bill of Materials), including the required cutting data, machining details, and other production phases.

Specializations

- Import of machining data from 3D CAD drawings
- Parametric items with calculation rules
- Analysis of production phases
- Window and door design with dedicated software

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Material requirements planning

To produce the items, the parts are cut from bars. **Nesting** optimizes this process, enabling the use of the minimum possible number of bars and determining the exact material requirements. In addition, the nesting system must allow for the management of leftovers from previous production runs by maintaining an inventory of cut-offs.

Specializations

- Export of material consumption data to the ERP
- Import of the list of usable leftovers from the machines
- ERP remnants list
- Integration of any automatic storage systems for bars

Logistics

The analysis focuses on what is necessary for the correct routing and tracking of parts, starting from label printing and production reports. Subsequently, the need to organize parts according to processing stages, assembly, or shipment is assessed.

Specializations

- Labels
- Production reporting/ paperless workshop
- Organization of parts exiting the various production stages
- Organization of semi-finished products for assembly
- Shipment

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Production Progress

Production progress data is collected directly from machines, or tracked via barcode readers and imported into the company MES. If an MES is not available, an alternative solution is identified to ensure the company complies with Industry 4.0 guidelines.

Specializations

- Data import drivers for Industry 4.0-ready machines
- Export of data to the MES
- Monitoring of manual production stages

Stages of the project

1. Analysis of the Current State (As-Is)

- Collect information on current business processes
- Interview stakeholders: Management, Sales, Logistics, Production, IT
- Create a mapping of possible interventions
- Identify KPIs to evaluate results

2. Intervention Proposal

- Gap Analysis: differences between the company's current state and the desired workflow
- Identification of "low-hanging fruits": objectives achievable with minimal time and investment
- Identification of "bottlenecks": objectives that make the digital workflow particularly inefficient
- Creation of an action grid highlighting costs and benefits

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3. Action Selection & Road Map

- Intervention planning: actions are selected based on the effort the company is willing to allocate and on priority objectives
- Stakeholders buy-in: all stakeholders involved in the initial analysis approve the project in agreement with company management
- Preparation of the project document, detailing the necessary interventions
- Creation of the Road Map, with the scheduling of actions required for implementation, organized in phases, and planning of personnel training

4. Follow-Up

- Verification of results achieved
- KPI monitoring
- Feedback collection

Specializations

- Data import drivers for Industry 4.0-ready machines
- Export of data to the MES
- Monitoring of manual production stages