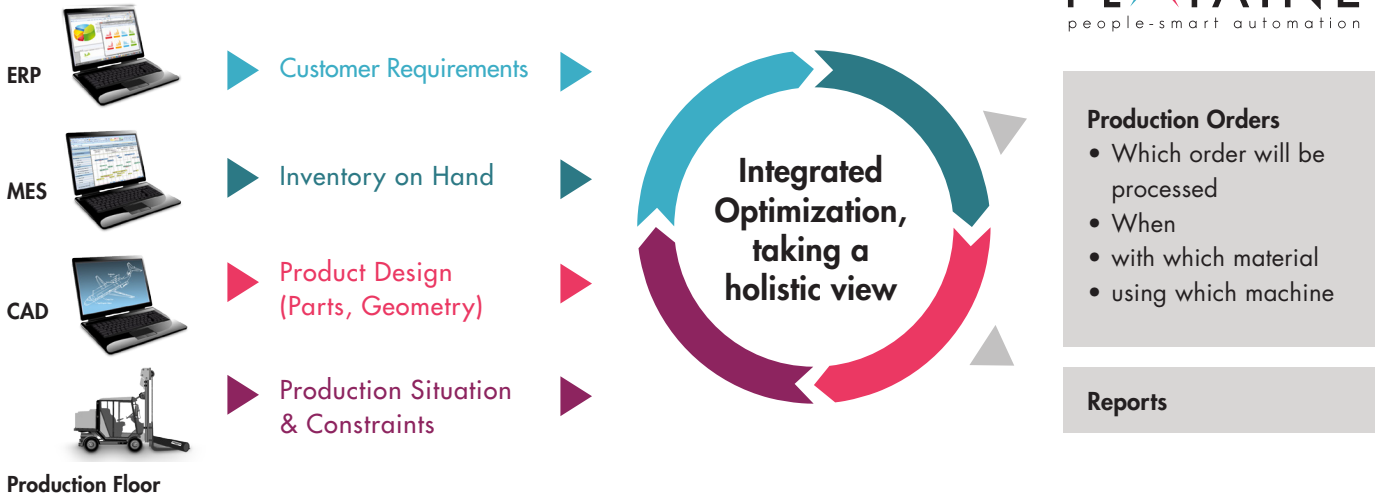# PLATAINE®
people-smart automation

Benefits

- Maximal production efficiency driven by process automation
- Over 10% higher material utilization
- Reduces manual tasks and eliminates paperwork
- Streamlines production and minimizes re-work & scrap
- Higher manufacturing yield
- Improved product quality
- Quick deployment

Key Features

- Optimization based on real-time extensive production data
- No-click automated ready-to-cut production plans
- Seamless integration with your existing IT systems
- Dynamic cutting of what you need with the materials you have
- Rich & flexible settings
- Shop-floor visibility & reports

OVERVIEW

FabricOptimizer is part of Plataine's integrated Total Production Optimization (TPO) suite, designed to specifically address the challenges of composite part manufacturing. FabricOptimizer automates and optimizes cutting and kitting operations at the highest level possible by retrieving work orders, geometry files, materials availability and their status automatically and uses the information in real time to create ready-to-cut production plans. Dynamic and highly efficient nesting algorithm, as well as click free automation integrates with your existing infrastructure and results in peak material utilization, improved throughput, and enhanced quality control.

Optimized cutting & kitting
Highest material utilization by considering customer orders, and production requirements in real time.

Automation at every level
Click free automation module collects all required data and creates ready-to-cut plans.

Unlimited processing power
Parallel and cloud-assisted processing for unlimited computing power.

Complete traceability
Accurate logging of all operations enabling full traceability and audit readiness.

TPO Suite

TPO (Total Production Optimization) is a set of digital assistants that deploy artificial intelligence to optimize production and processes. Assets, Materials and Tools Tracking, Shelf-life Management, Tools Maintenance Optimization, Quality Control, Audit readiness, Work Order Optimization and Supply Chain Management are part of the TPO suite of applications.

Your Intelligent Automation Partner, Delivering the Factory of the Future.

ERP

Customer Requirements

MES

Inventory on Hand

CAD

Product Design
(Parts, Geometry)

Production Situation
& Constraints

Production Floor

Integrated Optimization, taking a holistic view

Production Orders
- Which order will be processed
- When
- with which material
- using which machine

Reports

Dynamic, Holistic & Real-time: FabricOptimizer optimally decides WHICH Production order to run, WHEN, using WHICH raw material, on WHAT machine, WHILE creating the optimal nest & production plan.

Key Features

OPTIMIZATION BASED ON REAL-TIME EXTENSIVE PRODUCTION DATA

Dynamically (on the fly) consider and optimize all aspects of the composite material cutting process at the same time, including: orders and product requirements, product–part geometry, inventory on hand, cutting and nesting requirements and constraints, and more. Optimize cut plans by dynamic mixing of part models and assigning them to specific material according to its length, width and remnant utilization considerations.

AUTOMATED READY-TO-CUT PRODUCTION PLANS

Elimination of routine tasks and human errors by automating cut plan generation, integrating with ERP for orders, CAD for styles and inventory management system for material. Predefined scheduler imports files automatically reducing potential for errors.

SEAMLESS INTEGRATION WITH YOUR EXISTING SYSTEMS

Flexible integration layer and interfaces that allow FabricOptimizer to send and receive all necessary data from and to the adjacent systems such as ERP, MES and CAD/PLM.

RICH & FLEXIBLE SETTINGS

Powerful configuration tools allow FabricOptimizer to be setup to match your preferences and needs. Configure business rules such as mixing, nesting constraints (flip, rotation, gap, etc.), import layers, and graphic displays.

SUPPORTED COMMON GEOMETRY FORMATS

FabricOptimizer supports most common geometry formats such as DXF, CEI, PLX-XIN.

SHOP-FLOOR VISIBILITY, TRACEABILITY & REPORTS

Improve traceability and quality by keeping accurate records and logging all cut plans results and history while automating reports for management and shop floor workers. All nested jobs (pending, being processed or completed) are logged for future reference. Additionally, FabricOptimizer provides printouts of the cut plan nests for shop floor workers.

PERFECT BALANCE BETWEEN CUTTING AND KITTING NEEDS

Allows flexible comprehensive settings to optimize material savings and shopfloor efficiency by balancing the level of part mixing, sectionalize parts and direct labeling.

"Implementing Plataine's solutions not only helped us to reduce manual tasks and paperwork in the factory but also led to 11% material savings, and improved our total productivity and quality control."

Jürgen Moeller, Vice President, Head of Manufacturing Aeronautics & Composites at MT Aerospace

MT AEROSPACE

ABOUT PLATAINE: Plataine is the leading provider of Intelligent Automation software for advanced manufacturers, leveraging IoT and Artificial Intelligence Technologies. Plataine's Total Production Optimization (TPO) solutions bring the world of IoT to composite part fabrication and leverage state of the art patent-protected technologies, to enable manufacturers to significantly improve their Buy-to-Fly ratios. Plataine's solutions are used worldwide by top-tier customers from all levels of the supply chain, such as CTC-Airbus, GE Aviation, AVCORP, IAI, MT Aerospace, and Triumph.