



From Manual Scheduling to Real-Time Precision: Digital Transformation with Synchrono® and iBase-t

► Customer Profile

iBase-t Customer: Aerospace and Defense Technology Company

Industry: Aerospace and Defense

Primary Work: Design, develop, build and support some of the world's most advanced products, from cutting-edge aircraft and next-generation spacecraft to unrivaled cyber security systems and all-seeing radars.

Challenge: With a large-scale operation managing high-stakes production schedules and ensuring efficiency across various departments, this leading A&D organization required an approach that could handle complexity in their journey towards digital transformation.



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The Challenge

As a global leader in A&D, operating highly complex, multi-level manufacturing environments that demand precision, agility, and real-time coordination, the production teams struggled with:

- Manual, spreadsheet-driven planning—slow, error-prone, and difficult to scale.
- Limited visibility into constraints, bottlenecks, and order status.
- No real-time data synchronization, causing misalignment between planning, scheduling, and shop-floor execution.
- Low agility, making it difficult to react quickly to disruptions or changes in demand.

These challenges limited throughput, made schedule attainment unpredictable, and slowed the company's broader digital transformation efforts.

The Evaluation

As part of a long-term digital transformation strategy, this organization set out to:

- **Modernize planning and scheduling operations** to support a fully connected digital thread.
- **Automate and optimize complex production environments** with multi-level synchronization.
- **Enable real-time, data-driven decision-making** across manufacturing teams.
- **Increase schedule attainment, on-time delivery, and throughput** while reducing operational risk.

The Solution

The organization selected SyncManufacturing®, an Advanced Planning & Scheduling (APS) solution from iBase-t partner Synchrono. Integrated with Solumina Manufacturing Execution System, it delivers a dynamic, constraint-based, real-time scheduling capability tailored for complex manufacturing.

Key solution capabilities include:

Dynamic, Real-Time Scheduling

- Always-on adaptive scheduling engine
- Automated, patented scheduling algorithms
- Real-time integration with ERP, MES, QMS and other systems

Intelligent, Constraint-Based Optimization

- Multi-level synchronization
- Heuristic-based setup optimization
- Drag and drop schedule adjustments

Enterprise-wide Visibility

- Live schedule views available across the shop floor
- Prioritized, exception-based management for faster issue resolution
- Real-time Capable to Promise (CTP) and visual status for every open order

By selecting the APS system, the organization gained a solution capable of operating within highly complex, mission-critical production environments while integrating seamlessly into its digital ecosystem.

The Outcomes

The SyncManufacturing® implementation delivered measurable improvements in planning efficiency, production performance, and operational insight:

Boost in Production Effectiveness

- More synchronized workflows and real-time visibility improved overall production performance.

Increased Throughput

- Automated scheduling eliminated bottlenecks caused by manual planning, allowing teams to build more efficiently.

Higher On-Time Delivery & Schedule Attainment

- Improved predictability and accuracy in scheduling led to significantly enhanced delivery performance, supported by schedule attainment tracking.

Improved Profitability

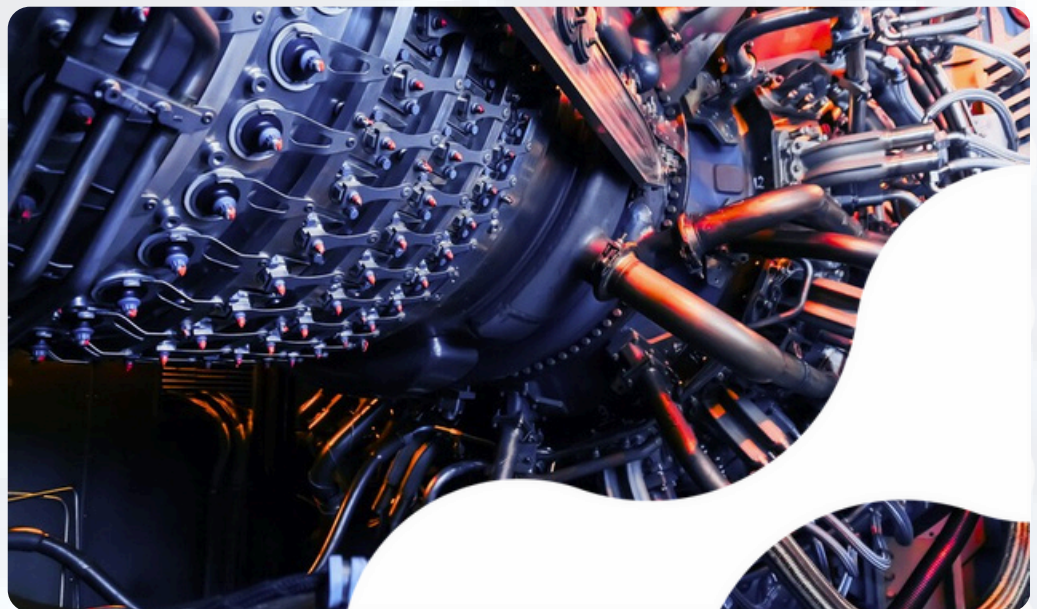
- Better alignment between resources, priorities, and production flow reduced waste and increased manufacturing effectiveness.

Empowered Workforce

- Planners shifted from “schedule builders” to schedule analysts, focusing on strategic decisions rather than manual tasks.

Greater Agility & Resilience

- Teams can now adapt rapidly to internal or external variation—an essential capability for defense manufacturing.



About iBase-t

iBase-t is the global leader in cloud software for the aerospace and defense industry. Committed to innovation, customer success, and product excellence, iBase-t ensures digital continuity across manufacturing, quality, and maintenance, repair, and overhaul (MRO) operations on a global scale. iBase-t's Solumina Manufacturing Operations Platform is a cloud-native solution that establishes a digital ecosystem to drive innovation and improve operational performance for the most critically complex manufacturers. iBase-t customers include Lockheed Martin, Northrop Grumman, GE Aerospace, Rolls Royce, Pratt & Whitney, and Textron.

The Solumina Manufacturing Operations Platform by iBase-t consists of an integrated suite of MES, SQM, and MRO solutions. Designed for complex, highly regulated discrete manufacturers who seek to digitally transform their operations, Solumina connects manufacturing operations, quality, and sustainment management in a seamless flow of data across the value chain and product lifecycle.

The Solumina Manufacturing Operations Platform creates the technology infrastructure manufacturers need to harness advances in model-based functionality like PMI continuity, Assisted Engineering Changes and augmented reality guidance for the workforce, IIoT connectivity for equipment, new levels of intelligence for decision making, and higher levels of customer and supply chain collaboration.

Learn more at
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