READY FOR RATE
OPTIMIZE MANUFACTURING PLANNING TO ACCELERATE RAMP-UP AND ENHANCE PRODUCTION AGILITY

ACCELERATE MANUFACTURING PLANNING TO REACH OPTIMAL PRODUCTION RATES FASTER

Aerospace and defense Original Equipment Manufacturers (OEMs) and large suppliers juggle the need to manage large manufacturing sites and complex global supply chains to meet aggressive delivery targets.

The **Ready for Rate** Industry Solution Experience accelerates manufacturing ramp-up and improves quality by enabling engineering and manufacturing planning stakeholders to connect the dots and have real-time access to accurate product and product build information. **Ready for Rate** also enables flexible production rates while delivering products with first-time quality, on budget, and on schedule. Manufacturers can take advantage of the **3D**EXPERIENCE® platform to implement lean practices that remove waste in critical areas of manufacturing. Planners can define and validate manufacturing processes down to individual work instructions virtually to eliminate potential issues and waste before they occur.

DASSAULT SYSTÈMES

Improve Manufacturing Efficiencies

The Aerospace & Defense industry has experienced a major upset due to global economic concerns as a result of recent pandemic and drastic reduction in aerospace travel resulting in significant downsizing of operations in several OEMs and suppliers. The industry will need to offset the resulting loss of scale with a step up in efficiency, reduction of waste and being able to do more with less resources.

Ready for Rate offers a solution to improve efficiencies, quality and reduction of waste by sharing, cooperating and, most importantly, breaking down the barriers to allow interconnectivity utilizing the virtual and real world for manufacturing. With new technologies including robotics, autonomous systems, artificial intelligence, additive manufacturing and sensor technologies taking center stage, the industry will see an increased push toward the adoption of digital innovation. That innovation can then be sequenced and scheduled in the best optimized way to improve production capacity and allow real-time access to accurate product build information.

Harness the Supply Chain

Managing the global supply chain consistently ranks as a top concern for all aerospace manufacturers. Best-in class manufacturers in all segments use lean manufacturing planning methods to support Just in Time (JIT) sequencing for material ordering, arrival and production operations.

Ready for Rate improves manufacturing planning so production starts sooner and targeted rates can be adjusted to faster. Simplifying both "inbound" and "outbound" supply chain design using real-time analytics and powerful simulation gives planners visibility from fasteners to full sections. Traceability of materials, parts and assemblies directly to each source and throughout all planned production processes allows planners to nimbly adjust the master schedule due to unforeseen changes.

Simulate Manufacturing

Using manufacturing trade studies – powerful process simulations that reveal an exponentially increased amount of tradeoffs – plant managers and planners can identify which areas of production to improve and the related program impact. These areas of impact include:

- Rate: Identify the resources needed for production process improvements
- Engineering: Define the number of design changes needed and related deadlines
- Risk Issue Opportunity: Detect and correct weaknesses in production plans
- Supply Chain: Project suppliers' rate and influence on production change scenarios
- Production Innovation: Plan, validate, and proof new innovation processes to implement

Improve Quality

Digital continuity between the engineering, manufacturing planning and operations supports real-time communication on the impact of Engineering Change Orders (ECOs). Removing disconnects between teams and the use of virtual prototypes to reduce time and cost overruns allows early detection and mitigation of design issues improving First Article Inspection (FAI) quality at a lower cost.

Ready for Rate unified engineering and change management provides suppliers and contract manufacturers visibility to ECOs that improve response. Digital continuity offers the traceability of all engineering requirements and manufacturing specifications so they are included in manufacturing planning. This allows complete delivery and first-time quality starting with the first system or aircraft off the line.

KEY BENEFITS

- Improve overall manufacturing efficiencies through planning and capacity optimization to adjust to rate and resource changes to do more with less
- Prove new manufacturing technologies and automation within the **3D**EXPERIENCE twin of the real production to increase the speed of production implementation with first time quality
- Integrate the global but lean manufacturing strategy planning, validation and optimization with a strong supply chain to meet production rate, cost, and schedule
- Collaboratively manage engineering change, planning quality and risk on a single platform to ensure continuous quality to the shop floor

For more information on **Ready for Rate**, visit our website:
www.3ds.com/industries/aerospace-defense/ready-for-rate

Our **3D**EXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our **3D**EXPERIENCE platform and applications, our customers push the boundaries of innovation, learning and production.

Dassault Systèmes' 20,000 employees are bringing value to more than 270,000 customers of all sizes, in all industries, in more than 140 countries. For more information, visit **www.3ds.com**.

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Americas
Dassault Systèmes
175 Wyman Street
Waltham, Massachusetts
02451-1223
USA

Europe/Middle East/Africa
Dassault Systèmes
10, rue Marcel Dassault
CS 40501
78946 Vélizy-Villacoublay Cedex
France

Asia-Pacific
Dassault Systèmes K.K.
ThinkPark Tower
2-1-1 Osaki, Shinagawa-ku,
Tokyo 141-6020
Japan