

# Cirrus Aircraft Simplifies Personal Air Travel

*An iBASEt MES/Quality Customer Success Story*



✉ [inquiry@ibaset.com](mailto:inquiry@ibaset.com)

🌐 [www.ibaset.com](http://www.ibaset.com)

☎ 949.598.5200

📠 949.598.2600

📍 27442 Portola Pkwy Suite 300  
Foothill Ranch, CA 92610, USA

## INTRODUCTION

Cirrus Aircraft is the recognized global leader in personal aviation and the maker of the best-selling SR Series piston aircraft and the Vision Jet™, the world's first single-engine Personal Jet, as well as the recipient of the Robert J. Collier Trophy. Founded in 1984, the company has redefined performance, comfort, and safety in aviation with innovations like the Cirrus Airframe Parachute System® (CAPS®) – the first FAA-certified whole-airframe parachute safety system included as standard equipment on an aircraft.

Worldwide flight time on Cirrus aircraft has passed 11 million hours.

The company has four locations in the United States, located in Duluth, Minnesota; Grand Forks, North Dakota; Knoxville, Tennessee and McKinney, Texas.



## THE CHALLENGE

The Cirrus Vision Jet is the world's first single engine personal jet. To meet strict conformity requirements set by the Federal Aviation Administration (FAA) for manufacturing design and airworthiness, Cirrus had to follow a six-step process, each crucial, including:

1. Generating design and work documents
2. Delivering changes
3. Generating non-compliance reports (NCR)
4. Processing request for certification (RFC) paperwork
5. Reconciling all the above to the FAA
6. Scanning and transmitting documents when reconciled to the agency for review.

As you can imagine, this process has traditionally been incredibly labor intensive and time consuming.

## THE APPROACH

Cirrus Aircraft worked closely with the Federal Aviation Administration (FAA) to achieve certification for the Vision Jet, using their iBASEt MES (Manufacturing Execution System), powered by Solumina, to achieve part piece level conformity. Digitally transforming their certification process had a big impact for Cirrus.

To improve FAA certification procedures, Cirrus needed a system that could:

1. Move from component (i.e., part piece) to systematic configuration management
2. Streamline inspection and the conformity process
3. Maintain safety for test pilots
4. Consolidate as-built and as-tested records
5. Expedite production approval

By demonstrating compliance to the agency's strict regulations through its updated processes, Cirrus was issued approval to use their iBASEt solution (powered by Solumina) for conformity management of certification test articles on the Vision SF50 Jet program.





## THE RESULTS

6 → 3

Six manual steps became 3 digital steps for FAA compliance

Instead of having six manual steps, Cirrus now engages in three digital steps for FAA compliance:

1. Assembly Drawings: Digital design and work documents are generated directly from the MES.
2. Automated NCRs: The MES delivers changes and generates Non-Compliance Reports.
3. Top Collector: Conformity inspection and test plan are approved via Solumina MES.

88%

Cirrus Aircraft achieved an 88% reduction in reconciliation time by using their iBASEt MES solution.

Historically, reconciliation was an incredibly labor-intensive process. Before implementing their iBASEt solution, each packet of information required 40 minutes of reconciliation. This time investment has now been reduced to only five minutes per packet. Considering the number of packets involved in a project like the Vision SF50 Jet Program, an 88% reduction in reconciliation time. This translated into huge savings.

## Labor Savings

The number of full-time employees required to complete this reconciliation (and other) processes has been dramatically reduced.

Vastly improving the certification process and speeding product-to-market timelines means Cirrus needs less labor than it did before going digital. Now, the company can reach greater scalability of certification and reconciliation workflows than had been attainable in the past.

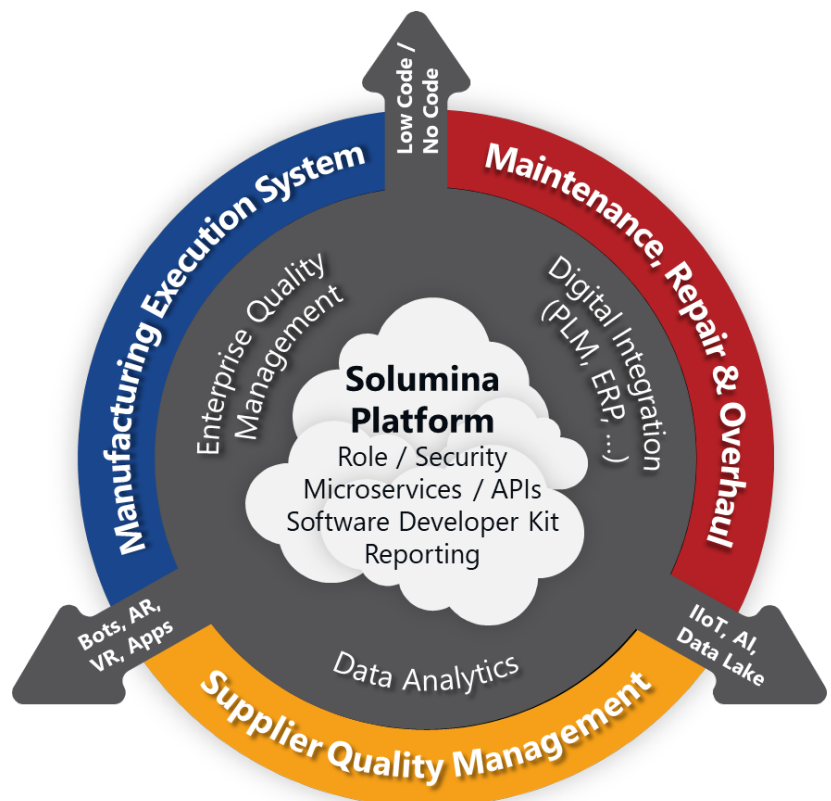
## ABOUT IBASET

Headquartered in Foothill Ranch, California, iBASEt simplifies complex manufacturing. Its solutions replace disparate production, quality, and MRO applications with paperless, digitally integrated solutions. The iBASEt Digital Operations Suite synchronizes data and processes to foster collaboration by establishing and maintaining a digital thread that spans enterprise systems to internal and external teams. From process and inspection, planning to the shop floor, and the execution of sustainment activities, iBASEt’s proven, pre-configured, and out-of-the-box solutions deliver real-time visibility and control that accelerates manufacturing performance.

The iBASEt Digital Operations Suite comprises a portfolio of Model-based Manufacturing applications that includes iBASEt’s Manufacturing Execution System (MES), Supplier Quality Management (SQM), and Maintenance, Repair, and Overhaul (MRO) solutions. This digital suite connects the shop floor to the top floor to ensure high quality, consistent practices, continuous product and process improvement, and embedded compliance with process standards including ISO 9001, ISO 13485, AS9100, and FDA’s 21 CFR Part 11 and Part 820.

With 30+ years of experience in highly engineered, regulated industries, iBASEt simplifies the complex by empowering customers to gain real-time visibility, take control, and drive velocity across their operations.

The iSeries, powered by the Solumina platform, has a cloud-native microservices architecture with open APIs that extends a digital ecosystem to drive innovation, simplify hardware and software systems integration, and deploy advanced technologies. iBASEt works closely with many industry leaders, including Lockheed Martin, Northrop Grumman, Rolls Royce, Pratt & Whitney, and Textron. Learn more at [ibaset.com](http://ibaset.com).



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