



Military Aircraft Manufacturer

Military aircraft manufacturer implements i-GOLD™ to manage modifications, maintenance and logistics for all aircraft programs

SUMMARY

A major military aircraft manufacturer recently implemented MIRO Technologies' i-GOLD™ software system at its development and modification center to manage modifications, maintenance and logistics for all military aircraft programs. The USA-based OEM provides sophisticated engineering, design, logistics support and modifications for the United States' military aircraft fleet and international customers.

CHALLENGES

Unlike many other OEMs and even other sites within the corporation, the OEM's development and modification site based in the Midwest faces the unique challenge of developing one-off aircraft configurations from engineering concepts through flight testing and delivery of the first article. The mod center's unique business model requires a hybrid system that combines the functionality of traditional MRO systems with a manufacturing planning engine geared toward one-of-a-kind manufacturing. In the past, the mod center managed this effort using a combination of home-grown systems and an early technology MRP system, which required the redundant manual entry of data into several of the systems. More significantly, the site has the challenge of manufacturing small numbers of parts that are no longer available from any other procurement or manufacturing sources.

In 1998, as the OEM mod center struggled with their legacy systems and the coming Y2K concerns, they set out to find a single information system that would provide all the developmental design, engineering and manufacturing planning capabilities, linked tightly with the material planning, execution, logistics, and maintenance functions. This single system was envisioned to allow all data to be entered only once and flow seamlessly through all the systems modules. Unfortunately, after over a year of searching and conducting two-day product demonstrations from more than ten suppliers, the OEM found that no such single system existed. Every system evaluated provided a portion of the solution, but none covered all the functional requirements.

In the mean time, Y2K came and went without causing the catastrophic failure of the legacy mainframe systems that some had predicted. In addition, the OEM was implementing and expanding the use of several point solutions for manufacturing planning, inventory control, government property management, and repair of repairables. Also, OEM was expanding their footprint in the MRO business by taking over a large portion of a closing Air Force base in the southwest United States, where they opened depot level maintenance and support facility for government aircraft.

The final struggle was implementation. The cost of supporting the legacy mainframe systems continued to increase each year, so the sooner a solution could be found and implemented, the sooner the OEM could begin reaping the savings of shutting down the legacy systems. In order to shut down the legacy systems, the mod center would have to implement their new solution in a "big bang" - an approach that would not be recommended for a site with many large and complex modification programs and thousands of end users.

SOLUTION

Unable to find a single, off-the-shelf system solution, the military aircraft manufacturer elected to consider some of their successful and widely used "point" solutions and integrate them. Since GOLD was in use at several internal sites and an enterprise license agreement had already been reached, the OEM asked MIRO Technologies to integrate GOLD with the products of some of their other suppliers and create a single solution, which was dubbed "i-GOLD."

After spending nearly a year jointly developing a 27-chapter requirements specification and obtaining the appropriate contracts with MIRO and the other suppliers, integration work began on this \$4 million, 18 month program. Shortly after the integration work began, the OEM opened the southwest support center and won a five-year PDM program. I-GOLD was factored in as a critical component of their contract performance and more pressure was put on making i-GOLD an enterprise scale solution for all modification and maintenance sites. At this point emphasis shifted from the mod center's business process requirements to those of a site doing repetitive depot-level maintenance programs. This shift not only induced requirements shift, but also grew the program into a \$30 million, five-year common system development program.



Intelligent Maintenance & Logistics Software™

MIRO Technologies
4250 Executive Square, Ste. 300
La Jolla, CA 92037
858.677.2100 tel
858.554.0873 fax



Military Aircraft Manufacturer

Military aircraft manufacturer implements i-GOLD™ to manage modifications, maintenance and logistics for all aircraft programs

SOLUTION (Continued)

In the mean time, i-GOLD modules and subsystems were implemented at various other OEM modification and maintenance sites as blocks of functionality and integration were completed that could satisfy the smaller contract requirements. Several OEM sites and programs began using the available modules and proving i-GOLD's viability in production use. This allowed the OEM to begin realizing the saving that the i-GOLD business case had projected, as well as gain a competitive advantage in competing for additional modification and maintenance contracts. By early 2005, i-GOLD v2.1 was in full production use at two OEM sites and deemed nearly ready for implementation at the mod center. Version 2.2 was going to finalize the integration of an MRP engine capable of supporting the manufacturing work at the mod center. Due to a shift in business process that out-sourced much of the manufacturing work previously done at the mod center, the site decided to aggressively move forward with implementing the Version 2.1 solution and also begin realizing savings, not only from i-GOLD, but from the ability to shut down and eliminate the support costs of their legacy systems.

RESULTS

Over the course of a weekend in February 2006, the OEM's mod center accomplished a "big bang" conversion and rollover to i-GOLD. On the following Monday, the entire site was live and operational on i-GOLD. There were some software and data anomalies that turned up once the system was under a full production workload, but nothing that prevented the site from accomplishing its business and delivering products to customers.

An internal end-user satisfaction survey was conducted in mid-April and the results showed a standard bell curve level of satisfaction. These results are being viewed by management as an unqualified success - a success made possible by a dedicated OEM-supplier team taking a partnering approach to a problem and providing a well-integrated solution.



Intelligent Maintenance & Logistics Software™

MIRO Technologies
4250 Executive Square, Ste. 300
La Jolla, CA 92037
858.677.2100 tel
858.554.0873 fax