

CORDA Fuels Hill Air Force Base With Operational Efficiency Through Information Dashboard

Background:

Hill Air Force Base, located in Ogden, Utah is home to many operational and support missions. The Ogden Air Logistics Center (OO-ALC) is the host organization, which provides worldwide engineering and logistics management for a wide range of resources including the F-16 Fighting Falcon, A-10 Thunderbolt II, Minuteman III, and Peacekeeper Inter-Continental Ballistic Missiles (ICBM).

The center is also responsible for Air Force-wide item management, depot-level overhaul and repair for all types of landing gear, aircraft wheels, brakes and tires. The logistics for all conventional air munitions, solid propellants and explosive devices used throughout the Air Force are managed at Hill AFB.

In dealing with the various operational, support, repair and management projects, the base became inundated with data. It needed a way to effectively and efficiently gather, track, present and report the data to base officers.

Hill AFB purchased PopChart and Highwire from Corda Technologies, Inc. to develop an informational dashboard that allows them to monitor all aspects of the Logistics Center. As a result, base-wide communication has improved because of the increased capacity to assimilate and understand the data they are dealing with on a daily basis.

Challenge: The Modernization of Information Visualization

Mike Neri is the Chief of Modernization Solutions at Hill AFB. He and his team were faced with the challenge to create an organized view of their data. For example they needed a way to improve the quality deficiency reporting, track the quantities of assets in the warehouse, and display and report on production schedule data in various areas. They needed a better way to answer questions such as: What is the status of produced assets? How many assets are in the shop? Where are they at in the shop? How far along in the process are they? When is the deadline and are they projected to meet it?

“We decided it was best to devise a strategy that allowed us to view the data in a graphical format,” Neri said. “We began by working on a scorecard approach utilizing several presentation components. This process took a significant amount of time and required a lot of data warehouse manipulation to create an organized view of the data. We were actually required to have a data warehouse underneath some of the tools we tried. It simply took too much effort and time to develop the charts and graphs that displayed our business processes in a way our management wanted to see them.”

Neri was in search of a solution that provided a fast way to present interactive data in a clean, clear and visual format that was easier for people to work with and that provided drill-down capabilities.

Solution: Visualizing Success

Neri’s team discovered that visualization tools such as PopChart from Corda Technologies very quickly solved many of the headaches they had been dealing with by allowing them to build a dashboard.

The project managers at the base wanted to track several metrics showing the status of various processes and inventories. They wanted a way to consolidate the metrics into a single view. In other words, they wanted an executive dashboard.

“We set out to build a dashboard for the one office that would allow them to immediately view the status of all of their metrics, whether they dealt with the test equipment, assets they were repairing, the number of quality deficiencies that were coming back from the field, the categories the deficiencies fit into, the reasons for the deficiencies, and other metrics,” Neri said. “They defined the metrics they wanted to track and measure with the dashboard, we were able to present the data in about one fifth of the time it took using a balanced scorecard application—and we were able to convert the entire effort in only one week.”



They now have better drill-down capabilities, animation for the charts, and they did not have to deal with a unique data warehouse underneath it. “We could look directly at the data; we didn’t have to build a separate data mart environment under the tool to make it all work. So it made it extremely easy for the developer to integrate the dashboard,” Neri said.

The program office can track the assets that are in the warehouse or coming back into the warehouse as part of quality deficiency reports from the field as well as the equipment assets they are using to repair the items and what their current standing is. The new dashboard tracks certain equipment items within the facility and equipment management system and then presents that data in a graphical form so that the project managers can see high-level status reports. From there they can drill down into increasing levels of detail to see such factors as the number of items awaiting maintenance, or items that are due or overdue for calibration, etc.

The project has had an impact on how people deal with data at all levels of the organization. “The information is viewed by the director, the wing commander, all the way down to the floor managers so that everybody knows what the schedule is and where they stand,” Neri said. “It gives them a quick view regarding whether a specific workload is behind schedule or ahead of schedule. We help make it easier to understand at a glance by integrating color into the charts and graphs. Red means they are behind schedule, yellow means they need to pick it up and green means they are good to go.”

Since Corda’s products are Java based, they aren’t tied down to a particular database or operating system. This eliminated several base-wide inconsistencies in how reports appeared. They employ both Windows and UNIX environments on the base to capitalize on the strengths of both operating systems.

“Before, if we built a dashboard in Windows all the graphs and charts had a certain look and feel, and if it was built in the UNIX or Oracle environment it had a totally different look and feel,” Neri said. “Now with Corda it doesn’t really matter what environment we’re developing in, all the charts and graphs are consistent. They have the same feel and capability, which has helped out significantly from a reporting perspective.”

“When someone wants to run a report or presentation, they don’t have to copy various links or spend all day on a PowerPoint presentation. They can simply create a clean PDF file that they can save or send to their superiors via email,” he said.

Conclusion: Improving Communication and Enhancing Efficiency

Corda empowers organizations by allowing them to transform data into actionable information. Hill Air Force Base has embraced this concept and has been able to improve processes, enhance communication, and increase efficiency across the base.

