



MONARCH

Pro

Monarch™ Keeps Edwards Air Force Base 412th MXG Mission Ready!

CASE STUDY



DATAWATCH

► Providing World-Class Aircraft Training

Encompassing 301,000 acres of land, 20,000 square miles of airspace and 65 linear miles of landing area, the Air Force Flight Test Center (AFFTC) at Edwards Air Force Base, California is the Air Force Materiel Command center of excellence for research, development, and test and evaluation of aerospace systems for the United States and its allies. To achieve these goals, thousands of dedicated men and women (both military and civilian) work around the clock to ensure that the millions of dollars invested in these state-of-the-art aircraft are in perfect working order.

And while the pilots often get the lion's share of the glory, it's the aircraft maintenance crew who are responsible for every circuit, wire and bolt of the aircraft. It takes hundreds of man-hours to keep maintenance personnel, as well as air crews, up to speed on all the inner workings of a wide variety of cutting-edge aircraft. But with more than two dozen aircraft designs and models housed at Edwards, and dozens more making routine stops there, how do they keep track of all the maintenance personnel and whether or not they are qualified to work on all these different aircraft? How could they possibly keep track of all the training requirements for everyone? Who is trained on what aircraft? Which personnel are due for recurring training or an updated class? They turned to Monarch for their answers.

► So Many Aircraft, So Little Time

Don Winters is the Chief of the Maintenance Training Division for the 412th Maintenance Group (MXG) at Edwards Air Force Base. The 412th Maintenance Group provides the maintenance and Logistics Test and Evaluation (LT&E) support for U.S. Air Force, Department of Defense, Foreign Military Sales, and contractor aircraft at the AFFTC. The mission of Winters' Training Division is the planning, administration, development, instruction, and evaluation of a complete training and readiness program for all military members and civilian employees within the 412th MXG. The variety of aircraft maintained by the 412th MXG—from the newest to the oldest aircraft being retrofitted with new updates—brings the magnitude of this responsibility into sharp perspective.

► Buried in Paperwork

The 412th MXG is the hands-on team that provides world-class aircraft maintenance for multiple design series aircraft and subsystems. And Winters is responsible for ensuring that all of the staff who performs this work is sufficiently skilled, trained and prepared to properly perform these critical operations. Simply put, he is part of a team that ensures everything is in perfect flying condition to maintain the safety of the aircraft, pilot and crew to complete their mission. Winters is no stranger to the complexities of Air Force combat and support aircraft. He has more than 20 years of first-hand experience as both an Aircraft Maintenance Crew Chief working on planes and now as a civilian working with the Air Force training program. While he no longer has his hands directly in the belly of airplanes on a daily basis, Winters found himself mired in an even more complex machine... paperwork.



From the Makers of Monarch™

Monarch Pro – Nothing Comes Close!

"...I realized very quickly that a tool like Monarch Pro wasn't just a solution for my group; it had capabilities that could be utilized by several work centers in the entire 412th Maintenance Group," said Winters.

Before purchasing Monarch Pro, Winters researched his options.

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"Our responsibility is to manage and monitor aircraft training records and qualification status of the entire 412th MXG personnel," said Winters. *"We create weekly and monthly reports tracking the training and qualifications status of all personnel, not only for the 412th MXG management, but also for the base commander and up the chain of command. We need to know the training path for a new team member; who is up-to-date, who has to be retrained on new or updated equipment, and if anyone is overdue for training and therefore not qualified to perform a task until they are qualified."* Not only are lives on the line every day, but if there is an accident, the focus of the military, Congress, the Press and the public first turn to the qualifications of the personnel both in the air and on the ground.

► Databases, Databases and More Databases!

To run these reports, Winters' and his team have to monitor a combination of approximately seven different databases which store the training records and current qualifications for each crew member.

"These databases are great at keeping track of our information, but our problem was they don't interoperate," said Winters. To get the data they needed, Winters' team had to download or print out the reports from each database and manually sort all the data. They would then have to locate, verify, merge and manually format and/or re-key all the data back into a usable report. Winters said, *"This manual reporting would take an average of one to four hours per report, consuming the bulk of a work day."*

The system was also limited in terms of the scope of information it could provide. *"Our databases are great for creating a snapshot of our training,"* said Winters. *"But we had no ability to go back in the databases and look at past months or years for comparison. If we wanted to compare reports, we had to pull out old reports and perform another manual comparison and additional data entry."*

Also, some databases covered individual troops and some covered entire units; requiring even more manual work. Several of the systems are also limited in their ability to forecast training needs. *"We had no easy or comprehensive means of keeping track of who was due for recurring training. All we could determine was if they were overdue and needed to be pulled from a qualification listing until they were retrained."* Winters' was frustrated. The data he needed was there, but putting it all together was taking too much time and manpower. And with the trend of cutbacks on military bases, Winters knew adding staff wasn't an option.

► Monarch Pro – Nothing Comes Close!

But all was not lost. Winters discovered a software program that seemed to be what he was looking for. *"Doing research into possible solutions to streamline our processes, I found in use on this base a report/data mining product called Monarch Pro™ from Datawatch. I realized very quickly that a tool like Monarch Pro wasn't just a solution for my group; it had capabilities that could be utilized by several work centers in the entire 412th Maintenance Group,"* said Winters. *"My team consists of training instructors, not data analysts. While we could use all of the information from mining our reports, Monarch could do so much more for the entire 412th maintenance group than we alone in the training division could leverage. Because the 412th Maintenance Group as a whole is primarily responsible for every aspect of every piece of aerospace equipment within the AFFTC, the training component, while critical, is just one element of the Group."*



From the Makers of Monarch™

From Countless Hours to 30 Seconds

Winters and his team understand the value of training and were the first to take advantage of on-site training from Datawatch. Even Winters was surprised at how quickly his team turned into Monarch experts.

"...Once we created our data models, we were essentially done. We just had to run the report," said Winters. "Reports that used to take us countless hours of manual preparation now take about 30 seconds to complete. We put everything into a Microsoft Excel spreadsheet for quick viewing..."



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Winters realized that Monarch Pro could help other divisions within the Group for aircraft maintenance, flying times, fuel consumption, supplies, parts, inspections, purchasing, etc. *"Every piece of data we have is resident in multiple databases. Since I know they don't sufficiently interoperate for the reports I need, I knew my colleagues must have the same difficulties,"* said Winters. Before purchasing Monarch Pro, Winters researched his options. *"I looked at other possible solutions, but nothing else I looked at had the capabilities of Monarch. Nothing else was even close."*

► Evangelizing Monarch Pro

Winters began evangelizing Monarch Pro throughout the 412th MXG. *"It was very easy to get other groups interested once I told them what Monarch could do. The people at Datawatch were great about preparing demos and visiting the base when I needed to showcase the functionality of Monarch,"* said Winters. With his enthusiasm and the backing of several other teams within the 412th Maintenance Group, Winters purchased a Monarch Pro group license for his team.

"My team only needs the software for our weekly and monthly reports, so we purchased a server-based concurrent license configuration that allows us to share the software without having to get an individual license for every single user. Other groups like the one headed by Cherisse Lawson, use Monarch on a daily basis. And some other groups consistently run Monarch in the background. Datawatch helped us get the best solution for our specific needs and budget," said Winters. *"The support from Datawatch from both their sales and technical support teams has been awesome."*

Monarch Pro easily integrated into Edward's IT infrastructure. Winters' team can now extract, manipulate and summarize data from a variety of traditional report formats and other data sources. From plain text, PRN, ASCII, ANSI, PDF, XML, HTML to Microsoft's new XPS outputs, with Monarch Pro they also have the added ability to directly import data from select data sources. The direct import capability essentially allows users to skip the report extraction phase when working with certain file formats, e.g., most desktop or ODBC database tables and / or queries, Excel worksheets and named ranges. Monarch Pro also provides truly superior capability for direct imports of delimited ASCII data files, should the need arise.

► From Countless Hours to 30 Seconds!

Winters and his team understand the value of training and were the first to take advantage of on-site training from Datawatch. Even Winters was surprised at how quickly his team turned into Monarch experts. *"Once we created our data models, we were essentially done. We just had to run the report,"* said Winters. *"Reports that used to take us countless hours of manual preparation now take about 30 seconds to complete. We put everything into a Microsoft Excel spreadsheet for quick viewing. We even color-code it to see who is good (green) who has upcoming training due in 90 days (orange), training due in 30 days (yellow) and anyone overdue (red). Also thanks to Monarch, we can easily group and analyze data accumulated over time using the same model that is employed to process a single report. This allows for quick summarization, comparison and examination of trends in the data manifested over months, quarters and even years. We can even sort our reports by troop, aircraft, and unit or by any other grouping necessary to send the data up the chain of command."*

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Monarch continues to positively impact the effectiveness of 412th team at Edwards and Datawatch training experts continue to develop advanced users across the base. What's more, Winters' team has added curriculum development and increased responsibilities for supporting the information needs throughout the 412th MXG to its core responsibilities. Thanks largely to Monarch Pro they can manage the increased workload without the need for additional staff.

For more information about Edwards Air Force Base, visit

<http://www.edwards.af.mil/main/welcome.asp>.

About Monarch

An affordable, programming-free Business Intelligence (BI) solution, Monarch allows users to unlock critical data buried in reports and other business documents without programming, as well as import and combine information from additional data sources, such as PDFs, databases or spreadsheets. Monarch is designed to help users work smarter and faster by giving them the information they need, in the format they want, to make better business decisions.

About Datawatch

Datawatch Corporation (NASDAQ-CM: [DWCH](#)), a leader in Business Intelligence, helps companies make better decisions and solve business problems by simplifying access to information. Unique among BI vendors, Datawatch transforms the massive amounts of data and documents generated inside or outside a company into actionable insight, without any changes needed to existing systems. Datawatch customers benefit from the right information, in the right context, at the right time. More than 35,000 organizations worldwide rely on Datawatch products including its market-leading Monarch report and data mining solutions. Founded in 1985, Datawatch is based in Chelmsford, Mass., with offices in London, Sydney and Manila. For more information, visit www.datawatch.com.

Contact Datawatch

For more information about Datawatch, Monarch Pro data mining software and other Datawatch products, please visit <http://www.datawatch.com>.

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