



Sechan Electronics Streamlines with Sequence Software

Converting to paperless work instructions saved Sechan at least \$60,000 annually.

Sechan Electronics, Lititz, Penn., develops, manufactures and tests military electronics systems and subsystems for the Department of Defense and its prime contractors.

A top electronics contract manufacturing services company, Sechan is one of the most respected small businesses for contract manufacturing in the U.S. The company built its reputation with cutting-edge electronics systems supported by circuit card assemblies, wiring harnesses and end item integration.

Over the years, from a production standpoint, Sechan has relied on detailed paper work instructions to deliver competitively priced, highly reliable, defense electronic and electro-mechanical equipment.



Previously, the company's data base allowed engineers to cut, paste and drag information and images into a Word or other work document. However, in Sechan's high mix, low volume product mix, it would not be uncommon to have 500 changes over the life of the program -- hundreds per day in 30 to 50 active programs -- that would drive changes to five to seven paper work instructions on the floor.

"We would grab these documents, manually redline them, accumulate the changes, withdraw them from the floor and replace the changed pages with the updated information," Sechan Vice President of Operations Steven L. Kaylor says. "There was one individual who spent all of his time running around notifying people that certain work instructions were on a recall list. Then he would locate all the copies and check off on a master list that every copy had been updated or redlined. It was a never ending constant struggle to make sure it was getting done properly."

Paperless Work Instructions Pay Off

Kaylor was convinced there had to be a better way to get changes to floor. He reviewed a number of alternatives. Some companies offered document management systems, but he would still have to generate separate documents. He then heard of Sequence software, from Knoxville, Tenn.-based FFD, Inc., that would eliminate the need for paper work instructions and streamline his redline dilemma.

It didn't take long for Kaylor to see that by switching to the software he would reap an immediate ROI and improvements in efficiency.



“We’ve reduced cost, particularly in the overhead areas,” Kaylor says. “We’ve also improved on the document management side as well by having the ability to instantly deploy those redlines to the floor and not have to recover and update paper documents.

“By eliminating a staff position to maintain the paper process we are saving \$60,000 annually,” Kaylor continues. “It has also helped us achieve manufacturing engineering capacity gains in excess of 20 percent because we improved the redline tracking.”

Barry Lucas, president and founder of FFD, says the on-line work instructions provide clear, concise direction to the work force and include real time change control, a direct link for operator feedback to the responsible manufacturing engineer and a multimedia capture feature (audio, video, CAD) to enhance process learning and direction.

“Sechan was very sophisticated in its process, but needed a better way to update the instructions,” Lucas says. “Sequence allows the company’s highly-skilled staff to spend more time on manufacturing the products and less time waiting on work instruction changes. The benefits of the package not only reduce the costs associated with management but add to the bottom line through increased capacity.”

Kaylor agrees. “We’ve achieved a 95 percent reduction in total change implementation cycle time. That is a throughput issue where we calculated the time it would take to update the documents and get them back to the floor.”

As a military contractor, Sechan needs to act quickly to change the configuration of any given product in terms of how it operates and is used in a mission or the physical environment. Every time they make a change, it must be communicated to subassembly and assembly departments in seven separate documents. In the past, it was often challenging to ensure that all the changes were in place.

“When we get into the rollout process, Sequence doesn’t allow a person back into the instruction until they reviewed and acknowledged those changes,” Kaylor says. “That helped us on the supervisory standpoint to not have to grab those people and point out what has changed. Now we make the change and put it behind us.

“Our ROI on Sequence software has been very good,” Kaylor concludes. “We’ve eliminated one position, are much more efficient and have high confidence in our accuracy.”

Sequence Enterprise

Designed for the manufacturing enterprise needing work instructions that are collaboratively authored, fully integrated with ERP/PLM/MES and deployed in a real time, interactive paperless environment.

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