Symbol Technologies' Quality Control Success

No one can walk through a supermarket check-out line or most other stores without noticing Symbol Technologies' barcode and scanner systems at work. How does Symbol ensure the highest quality products in the most efficient manner? Its Automated Interface Testing System (AITS) provides a testing resource tool that examinees numerous products at once for possible defects before sending Symbol's equipment into the public arena.

The universal testing technology used in AITS was originally designed in December 1993. ARvee Systems, located in Bohemia, was selected based on previous experiences with the design and implementation of similar systems. "The purpose of this system is to have multi-function, multi-tasking test control and data acquisition," explains Greg McKenna, Symbol's manager of business processes and customer service engineer. "We test all of Symbol's new products and control how the products are cycled and instrumentation is measured by the outputs from AITS."

The new test machine reduces labor costs, due to more accuracy with less mistakes and each system can do 16 separate tests at the same time. AITS was designed to control various test functions, including chamber control, temperature, electrical parameters, and access in a remote operation. "The largest part of this system is its full function testing which makes a big difference in the quality of the products we ship to our customers," McKenna states. The development also includes the Decode Zone Fixture, which automatically places a scanner on a rotating drum and exposes the barcode. This feature measures how well the scanner decodes in each zone without physically moving the products. McKenna reports that this part of the system enables his staff to know if the product meets all system specifications, without a doubt in mind. He also states that any laboratory can customize the system to its individual needs, since AITS can be integrated with minimal capital outlay and testing takes place with less equipment.

Now that Symbol has determined how AITS can reach its highest potential for quality assurance, what has the company gained from this system? Vincent Della Ratta, Symbol's quality reliability lab support manager, describes the system as responsive and flexible to the company's needs. He sums up AITS' best features as examining more circuit parameters and serving as a control and storage device for important testing statistics.

Prior to AITS, Symbol used dedicated equipment which had to be designed and fabricated for each task/test. Functionality was limited and information that was collected was minimal. In addition, storage was non-existent. This, of course, saves more money for Symbol with just the one-time cost for AITS. "Symbol products are more robust than ever since we work out more bugs and gremlins which may show up through our through testing procedures," McKenna states.

According to Vince Della Ratta, by having a solid, comprehensive lab, Symbol employees work with the best test engineering to gather statistics quickly and accurately. The lab now monitors products unattended, which reduces the cost even more. With a major cost reduction and better testing results for product quality control, Symbol will continue to meet top standards with its product line. It will also be able to release new products to the public with very little, if any, recalls or flaws to eliminate. This Bohemia, New York corporation has earned a reputation for its fine and reliable product line. Now it will surpass customers' expectations with even higher quality materials.