

MQVP is working to RFID-enable its existing electronic system, which tracks the supply chain for collision-repair automotive parts.

By Claire Swedberg

Nov. 22, 2006—To enable collision automotive part makers to maintain an automatic pedigree system and fight counterfeiters, [Manufacturers' Qualification and Validation Program](#) (MQVP) is taking steps to add RFID technology to its existing electronic supply-chain tracking system. MQVP president William Hindelang says his company may market its RFID solution to other industries because the success of electronic tracking in the auto-parts industry has led to the capture of counterfeiters within distribution and manufacturing, as well as an unexpected series of lawsuits between MQVP and those distributors and manufacturers.

Hindelang established MQVP about five years ago at the urging of insurance companies, to provide a certification program for collision replacement parts. Until then, the insurance companies had little control over the quality of replacement parts they paid for when auto-body shops repaired cars. In many cases, the parts could be counterfeits of those the insurance companies thought they were paying for.



William Hindelang

According to the [Specialty Equipment Market Association](#) (SEMA), automotive-parts counterfeiting costs the industry about \$12 billion annually in the United States. Most products are made in Asia or the United States, then distributed by U.S. companies to American auto-body shops. A part's origin, however, could be difficult to trace, making quality hard to guarantee.

MQVP has been attempting to correct the problem with its Global Online Certification (GOCERTS) system, which creates an electronic trail for each replacement part. Most MQVP members manually key the parts' serial numbers and descriptions into the GOCERTS system, along with other details. Some insurance companies direct body shops to use MQVP-certified parts when performing automotive repairs following an accident. Approximately 10,000 types of parts are listed in the MQVP program, Hindelang says. Seventeen parts manufacturers and 11 parts distributors are participating in the GOCERTS program, though he declined to name them at this time.

Currently, according to Hindelang, some GOCERTS participants use bar-coded labels with unique serialized numbers to identify and authenticate parts, while others manually input data related to the product. A label with a unique bar-coded number is attached to each part for the purpose of identification, but the use of bar-coded labels is more cumbersome than RFID would be—unlike an RFID tag, a bar code requires an unobstructed line-of-sight to read.

The use of RFID tags will help authenticate products coming from an MQVP-authorized business, since

its unique tag ID number could be captured at the various points of the supply chain. This allows parts manufacturers, distributors and insurance companies to use an electronic pedigree for each part, such as a hood, grill or lamp, as it passes through the supply-chain site.

Already, GOCERTS members routinely enter part information into the GOCERTS system. This information includes the type of part, special requirements, safety provisions, length, width, strength and other statistics that show a piece meets MQVP certification. After a manufacturer enters data, the system creates a pedigree of the product including the date, the location of production and the history of its movement throughout the supply chain. This information is then stored in the GOCERTS database.

A parts manufacturer looking to print and encode RFID labels would request a print function from GOCERTS. The product data, as well as all necessary human-readable and linear-2D bar-code information, would be sent across the Internet from a GOCERTS print server. That data could then be used to print and encode the label in-house, and to package the product for shipment.

The data would be hosted by an MQVP server in Detroit, available to participating members online with a password. "We intend to charge [for RFID functionality] by uses or number of parts produced as recorded in the GOCERTS database," Hindelang explains.

The RFID system is still in its earliest stages, however. "We did only pilot testing to connect our GOCERTS Systems remotely over the Internet to simulate interoperability with hypothetical overseas manufacturers," Hindelang says. MQVP tested a sample production lot and trialed an RFID label printer. "We used a Michigan-based systems integrator developer as a partner with local print capability and our in-house development training server," he says. MQVP has not yet determined the types of tags it would use.

The MQVP has tested the printing and encoding of RFID labels and will now work with manufacturers, which would need RFID printer-encoders to pilot the system. No specific date has been set for that pilot, however. In fact, MQVP reports being embroiled in numerous lawsuits related to what, ironically, points to the success of the GOCERTS program.

Through the use of the GOCERTS pedigree, Hindelang says, MQVP unearthed numerous cases of fraud, leading to legal actions. Because the counterfeiting lawsuits have delayed the RFID rollout for aftermarket parts suppliers and distributors, he says, the company also intends to direct its efforts to market the same system to part suppliers to aerospace and other non-auto industries.