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## **Shop Integration Task Force: *Streamlining the Future of the Automotive Service Industry***

Today, it would be hard to find the automotive repair shop that didn't have a computer. In fact, most have several PC's and computer systems on-site. They include the shop management system, the parts and labor information server, the service and repair server (such as Mitchell or ALLDATA), and a variety of PC-based diagnostic and service equipment. Throughout the repair process, shop managers and technicians are required to re-enter the information about your vehicle and the service work being performed into the various computer systems.

Each machine performs the job it was designed for very well, but the input and output of information is completely dependent on the operator because the data is help captive in the computer. Neither the shop nor the customers get the full benefit of the sophisticated computer equipment available.

Fortunately there's good news ahead for consumers and shop owners alike. The advent of industry-wide standards for the integration of computerized shop equipment promises to revolutionize the entire process. In an integrated repair shop, all the PC-based systems and equipment can "talk to each other" and share what they already know about the customer, the vehicle, and the service work being performed. The integrated repair shop is certainly the wave of the future and will take advantage of technology standards developed by the Electronic Commerce Committee of AAIA.

Up until this point there was simply no standard interface language that enabled disparate pieces of PC-based equipment to communicate with one another. An alignment machine from company X and repair database created by company Y had no way of communicating, so the technician had to re-enter the necessary data every time he switched form one piece of equipment to another. Shop owners found that they had paid large sums of money for sophisticated equipment that wouldn't "talk" to any of the other pieces in their bays.

In an integrated shop environment, all the information needed to complete a repair can be accessed from any of the machines on the shop floor. Once a work order is created, it can be retrieved by the technician at the alignment machine, for example. From his alignment station, the tech can "reach into" the service and repair server for the specifications and procedures. Upon completion of the job, measurements and test results can be returned to the shop management system for storage or addition to the customer's invoice. If parts are needed for the repair, this same technician may be able to search the shop's inventory, and if necessary, place a parts order over the Internet with the local parts supplier.

"Shop owners expect to have freedom to choose the best equipment for their needs without regard for interconnectivity or compatibility with their other equipment. The old model of proprietary technology built around closed systems is no longer valid and shop equipment makers have found open standards as the best way to serve the customer", said Scott Lockett, director of information technology for AAIA

Tim Larson, R&D engineer for Hunter Engineering believes consumers stand to benefit tremendously from the integrated shop. "Not only will it keep the mechanic focused on the job at hand, but it will eliminate redundancy of data and tasks which lowers the potential for human error."

Another customer-friendly feature, which Hunter automatically integrates into all their diagnostics equipment, is the Motorist Assurance Program (MAP). MAP is a set of criteria developed and utilized by the service industry to make judgements and recommendations about repairs. "We're working on developing systems that will allow the guy in the front shop to access MAP guidelines to set up a maintenance plan that can then be implemented by the guys in the back," Larson explains.

Bob Edwards, director of engineering for Snap-On Diagnostics believes the biggest impact of shop integration will be felt by shop owners. "Prior to the e-cat standards, technicians would have to re-key information every time they logged in to their terminal, and then decode the data received from other shops or parts distributors. Shop integration eliminates the need to do this because the end-user only needs to input one piece of data to get started. The machine will then store the information, and ask questions as the process continues."

Equipment manufacturers like Hunter and Snap-On also stand to benefit from the introduction of an industry standard interface language. "By eliminating the proprietary system in favor of a universal standard, manufacturers will return to a focus on the real aspects of competition; quality, service and price," Edwards explains.

Larson makes the equally important point that standardization will "spare manufacturers from having to build a shop management system into a diagnostics machine." "We can design our machines to work within the existing system, and devote our resources to the more specific functions of diagnostics equipment."

Consolidation across the industry means that efficiency is critical to staying ahead of the game. Clearly the days of all shops being fully integrated are still in the future. However with each step along the path to uniform catalog standards and equipment interfaces that day draws closer, and the benefits should prove universal. By reducing the time required to complete each job even small, specialized shops can become more efficient. The end result will be increased profitability in the service and repair segment, and improved customer service throughout the aftermarket.