

## **VEHICLE INSPECTION DATABASE SYSTEM PROVIDES VITAL INVESTIGATIVE CAPABILITIES**

Computer technology and sophisticated database management methods are playing an increasingly important role in vehicle pre-insurance photo inspection programs. Because of major advances in digital technology, the strategy of vehicle photo inspection as a deterrent to vehicle insurance fraud, provide the insurance industry and law enforcement with near-instant access to powerful technology and management tools.

Digital imaging and computerized database technology are integral building blocks in the pre-insurance photo inspection process. While advanced digital technology has resulted in high quality vehicle inspection “images,” high-speed, computer-based electronic communication capabilities have resulted in a powerful system that can accept, process, transmit and store information in innovative ways. And because of the near-instant access to important inspection information and computing power, effective productivity “tools” are now available to the insurance industry and its special investigative units, and law enforcement agencies, as part of the photo inspection process.

CARCO Group’s application of electronic imaging and database management technology to vehicle inspection requirements is based on extensive experience in mandatory vehicle inspection programs. A pioneer in vehicle inspection services and a recognized field leader, CARCO has provided, on-line, more than fifteen million inspections over a 25-year period: the system provides access by insurance carriers to inspection photos and reports, 24-hours a day, seven days a week. The company now makes available one of the most powerful database systems of its kind available for use by the insurance industry and law enforcement. The continuously expanding database, along with the company’s active research and development activities, represents a dynamic inspection information and research resource for the insurance industry, law enforcement, fraud bureaus, and regulatory agencies concerned with the economic problems created by of insurance fraud.

Of all the major property crimes committed in the U.S. last year, and for more than 25 years, vehicle-related crimes have the greatest economic impact on the largest number of people. Of the \$15 billion in property crimes reported for 2001, for example, vehicle-related crimes accounted for \$7.8 billion, nearly half of the total of all property crimes combined, of which up to 25 percent, according to insurance industry investigative professionals, are insurance frauds. Through the effectiveness of mandatory pre-insurance vehicle inspection laws, however, crimes of this nature can be deterred with considerable success.

CARCO's approach to the vehicle inspection process provides proven research, tracking and management tools. The system's multifaceted computer capabilities related to developing and managing a huge photo inspection database extends and enhances the user's research and investigative capabilities. These capabilities make the related data processing functions more efficient and more economical for the insurance industry and law enforcement agencies.

## **CREATING A DIGITAL ENVIRONMENT**

One of the most significant aspects of CARCO's information management capabilities, as related to vehicle pre-insurance inspection, is the streamlined integration and management of inspection information. Using computer-based "downloads" of photographic images captured with a digital camera and digital files created by scanning hard copy instant photos and inspection reports, the system puts all of the key data into an easily accessed integrated format.

The flatbed digital scanners employed by CARCO in the initial stage of the data input process, provide good quality images of Polaroid instant color prints, where applicable, while faithfully capturing the hand-prepared, page-size inspection forms submitted by the inspection stations. The scanners provide a resolution level of 640 x 480, which yields good image quality, while using minimal storage space. Special software provides a clear preview of the digital downloads, or scanned images including Polaroid color photos and inspection forms on a computer monitor.

The software developed by CARCO for the inspection database system, beginning with digitizing hard copy information, is an integral part of a sophisticated VIN-indexing system which facilitates near-foolproof retrieval. Besides the simplicity of scanning photographic images into an electronic system, access to all the pieces in an inspection report can be achieved in a timely, efficient and economical manner.

CARCO's approach to electronic imaging, using a digital scanner is based on extensive knowledge of the inspection process. It's designed for speed, efficiency, superior image quality and economy. The easy-to-use system requires only minimal training. Key functions include image acquisition, processing, storage, and image output. In seconds, inspection photos can be safely stored in a permanent electronic archive, using WORM technology [Write Once, Read Many].

In cases where Polaroid prints are used, the prints and the inspection report can be scanned, digitized and stored in a computer-readable format. Because of the many advantages, and lower cost, of digital imaging, most inspection photos are now taken with digital cameras, with only a small portion on photos taken with Polaroid cameras. The computerized data simplifies rapid responses to inquiries from clients and communications between the insurance carrier's facilities.

Sophisticated image processing capabilities also make it possible to enhance subtle details in an original photograph, retrieving information that might otherwise be lost. After digitizing a picture of a car with barely visible license plate numbers, for example, the image can be electronically enhanced to make the plate numbers more legible. Portions of the image can also be enlarged for close examination, if needed.

The information collected by inspectors during vehicle inspections, along with the digital color images or Polaroid Photographs taken of the vehicle at the time of inspection, can provide insurance companies, fraud bureaus and law enforcement authorities the tools needed to investigate fraudulent claims and in many cases to prevent a fraud from happening.

## **THE INSPECTION PROCESS**

The process begins when the policy owner reports to an authorized inspection site within a specified time after purchasing a late model used vehicle. Depending on the insurance carrier's requirements, even a high-price new vehicle may be inspected. A listing of inspection sites, along with maps and directions to the sites, can be easily found through CARCO's Web site, through direct telephone assistance, and through an integrated voice response computer system.

During the vehicle inspection process, an authorized inspector indicates the make, model and year in which the vehicle was manufactured on an inspection form, then copies the odometer reading, checks for accessories and optional equipment and notes the vehicle's condition and the type and brand of anti-theft device. Also entered on the form is the all-important Vehicle Identification Number, or VIN, from the VIN plate, which can be seen through the windshield.

When the inspection is completed, the form is sent to CARCO'S computer center, along with a minimum of three digital color images or Polaroid instant photos. Included in the series of photos is a picture of the Federal Motor Vehicle Safety Standard Label, often referred to as the "EPA Label," which is located on the driver side door post or door jamb. The EPA Label also includes the vehicle's identification number, but unlike the VIN plate on the windshield, it is more difficult to tamper with. When required to show excessive damage, additional photos are taken.

### **Inspection Data Transmitted to Computer Center**

When the inspection report is received at CARCO's data processing facility, the information is reviewed for accuracy and completeness and is then entered into a powerful database containing approximately 15 million inspection records: the report is scanned and entered into the database along with the digital images of the vehicle. If Polaroid photographs were taken, they are scanned to create a digital file and are entered along with the report. The inspection report can be retrieved at any time and discrepancies can be resolved immediately.

At the heart of CARCO's database system is a powerful IBM I-Series e-Saver AS/400 system, which is connected by a Local Area Network [LAN] to an IBM mainframe. The AS/400 system, which can access inspection data from a "jukebox" type optical storage device, is currently equipped with 1.4 terabytes [TB] of data [1.4 trillion bytes]. An electronic "bridging" system represents one of the most advanced integrated systems of its type.

CARCO's versatile computer capabilities provide near-instant access to information obtained from the inspection report and accompanying photos of each vehicle inspected, whether they are digital images captured with a digital camera, or Polaroid images that have been digitized by scanning. In either case, the information can be easily obtained to help an insurance company update policy information, investigate a claim and expand its database.

The AS/400 System provides CARCO and clients with important capabilities, including:

#### Inspection Report System

Facilitates entry of report data from a browser-displayed image of form after forms processing/scanning. Includes functionality features such as Change, Delete, Reports, Statistics.

### Agent System

Database of insurance agents that perform CARCOS inspections, and management control and reporting program.

### Forms Control System

Management control/review of report forms.

### Client System

Database of clients and programs for management control and statistical reporting.

### Site System

Database of contracted inspection sites; program for management control and reporting.

### Communication System

Electronic dissemination of data reported to insurance companies using various platforms/protocols.

### IRIS System

CARCO's IRIS [Inspection Report Information System] PC software program allows users to view and manage inspection report data received from CARCO.

### Supplies System

Programs for issuing supplies to vendors, with management control and reporting functions.

### JD Edwards Financial System

Financial software system including: A/R, including invoicing, A/P & G/L, in-house written interface between CARCOS operations systems and the financial system including international currency feature to support Canadian operations.

## **Database System Operation**

The process begins with data entry. The insurance carrier's code number and the report reviewer's initials are entered, followed by the inspection report number, the coverage ID Number and the number of digital photos or, where applicable, instant photos received. Another key item, the inspection date, is then entered.

To avoid potential tampering such as “backdating,” the inspection reports are completed and stored in sequential order: the date must fit the sequence in which the reports are issued. The date is also important to determine the time between the inspection date and the arrival of the report at the CARCOS Center.

After the date, the VIN is entered. This critical piece of information is equivalent to a birth certificate: each number or character in the 17-digit VIN sequence represents an important aspect of the vehicle, including information about where and when it was made, the manufacturer, model, assembly plant, and other key information. The VIN therefore plays a key role in validating the authenticity of a vehicle being insured and is a rich source of information for investigations by special investigative units of insurance carriers and law enforcement agencies. The database also provides information for investigations conducted by CARCOS, which may take place because of noncompliant VINs, seeding the database system, individual requests from law enforcement officials, and sting-site coordination.

### **Special Computer “Alerts”**

The inspection database system is programmed to issue important "alerts," which are indicators that action needs to be taken based on the results of specific search parameters. “Alerts,” or warning flags, fall into two major categories: Underwriting or Premium Generation-Risk Evaluation Alerts and Vehicle Identity-Integrity Alerts. These indicators signal that something outside of established parameters should be examined such as:

- Additional Operators
- Counterfeit VINs
- Altered Labels
- Garaging Location
- Inordinate Mileage

All this information, and more, can be easily accessed from the database. The inspection reports, regardless of where or when they were completed, reside in VIN-indexed inspection database, which is an important tool for preventing frauds from taking place or spiraling out of control.

Of equal importance to the many unique processing, tracking and management features embodied in CARCO's powerful computer database system, is the ability to provide quickly, via internet-based data transmission methods such as File Transfer Protocol, information that is needed by the carrier. The inspection documents and photos reside, on-line, in CARCO's computer system for access “24/7 “ by insurers and law enforcement agencies.

Accomplished by any conventional telecommunications method, transmissions can be encrypted as required by the user. This capability, which can allow the carrier to receive the data

in a PC-compatible format streamlines entry of inspection-related information into a carrier's system. Information related to policy owners insured by the carrier can be available to the client for immediate access, in-house reports generation and data manipulation.

### **Inspection Site Quality Control**

Quality control is an important part of CARCO's vehicle inspection system. It serves to rate field inspection sites, as well as to verify that inspectors are sufficiently trained. For example, if one of the three required inspection photos is missing, CARCO's highly trained data entry personnel will note that a photo is missing and an "alert" is sent to the field staff to indicate that the inspector may need more training.

### **INSPECTION BENEFITS CARRIERS AND PREMIUM PAYERS**

The field-proven vehicle photo inspection process, arguably the most effective deterrent to vehicle insurance fraud, offers multiple benefits to insurance carriers and their special investigative units [SIUs], law enforcement agencies and fraud bureaus, in a powerful integrated system that makes sense:

- Electronic transmission is fast and efficient
- Policy records can be accurately and automatically updated
- Noncompliance notices can be generated automatically
- Alerts are sent in cases of suspicious inspection reports
- Physical retrievals are minimized.

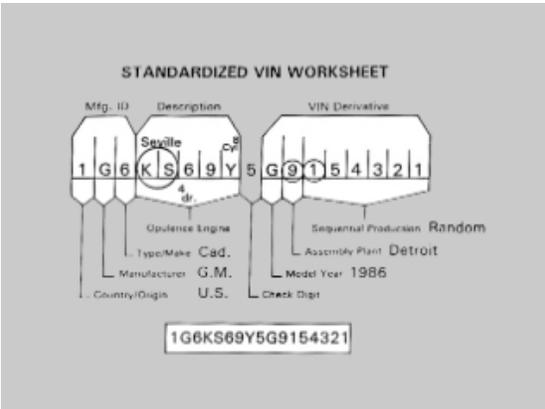
CARCO's powerful computer database capabilities enhance the value of the inspection program. Insurance carriers save money, which helps stabilize premium rates for consumers: law enforcement personnel can do their job more efficiently, and criminals who would otherwise profit handsomely from insurance fraud can be deprived of illicit profits reaped at the expense of honest policy owners.



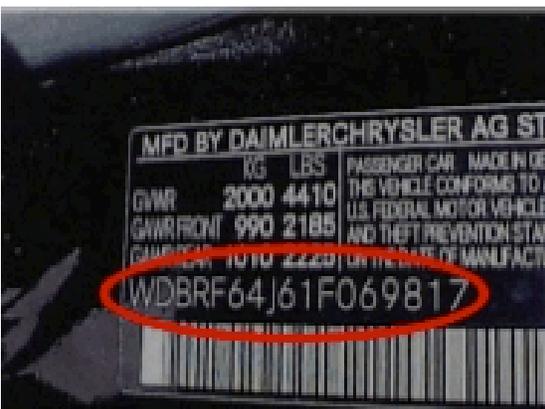
An inspector indicates the make, model and year of the vehicle on an inspection form, along with information about its condition, accessories and type and make of the anti-theft device.



Three photos are taken to show all sides of the vehicle, including a close-up of the Federal Motor Vehicle Safety Standard Label [EPA Label] located on the door post, which also shows the Vehicle Identification Number [VIN].



The VIN, shown on the EPA in a Red circle, provides important information about the vehicle.



The 17-digit VIN contains vital information about the vehicle, including when and where it was made. It is equivalent to the vehicle's "birth certificate."



When the report and photos are received at CARCO, the information is reviewed, then entered into a powerful computer database. As part of the data entry process, trained operators make important observations from the report, such as noting items that may need additional review, which will be highlighted as "Alerts."

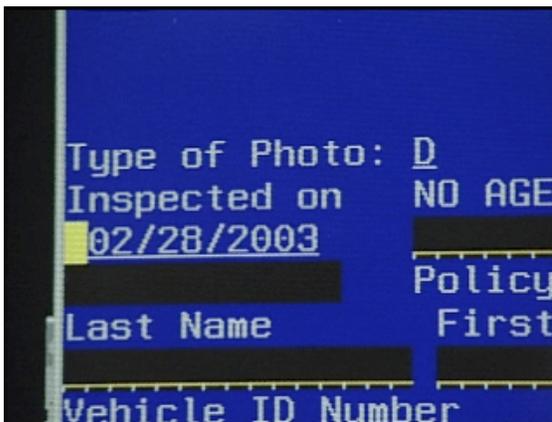
Report information is then transmitted to the insurance carrier for their policy records and compliance needs.



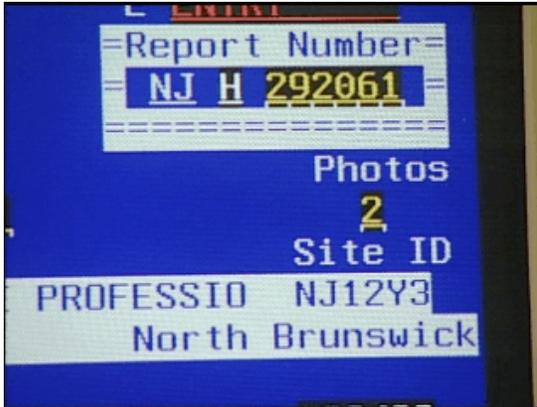
Once in CARCO's vehicle inspection database, information is available for near-instant access by insurance carriers and law enforcement agencies via the Internet. An authorized user can access the inspection report and the photos taken of the vehicle on a 24/7 basis.

A wealth of information is available for each inspected vehicle, including data that could be used to investigate claims, or for law enforcement inquiries.

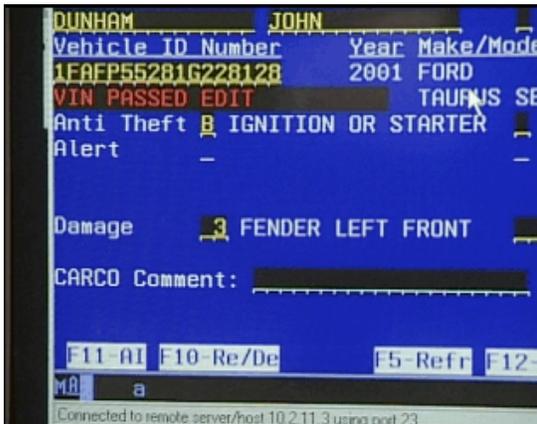
**TYPICAL INFORMATION ENTERED BY CARCO'S DATA ENTRY SPECIALISTS, AND AUTOMATIC COMPUTER RESPONSES, OR "ALERTS."**



A key piece of information, the date of inspection, is shown at the upper left.



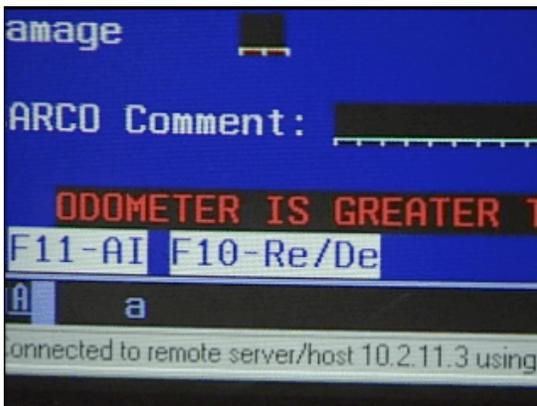
Shown on this screen is the inspection report number, location of the inspection site, and an indication that only two photos have been received rather than the three images required.



This screen shows that the VIN passed the computer "Edit" and that the vehicle had pre-existing damage.



The odometer reading is noted as being out of established parameters.



A "BAD VIN" comment could relate to a counterfeit VIN.