TECHNOLOGY

Learn to Read Product DNA

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Every crime scene, like every picture, tells a story. We move through the three-dimensional picture carefully, hoping that we find all the crucial pieces of evidence and that they speak to us and tell us their roles in the mystery.

There are times, though, when an obvious piece of evidence, complete with its own documented history, stares us right in the face, and we pass it by. What do you do with the Coke can found near the body or the empty potato chip bag found in the victim's car? Latent process itC9maybe. Nowadays, you're hopefully trying to get DNA from the lip of the can. But what else can that can tell us?

Plenty. Mass-produced items, from toys and books to soda cans and packages of chewing gum, are now documented and tracked from the moment of their creation to the time they are put on the shelves for us to buy.

Nearly every manufactured item contains a printed code, much the same way every car has a VIN number. Everything that a person carries out of a retail establishment bears sets of alphanumeric phrases and codes that can track the item back to that particular retail entity and even further back in its "life" as a manufactured item. In essence, manufactured items have their own DNA.

Product Identification Coding (PIC) offers a veritable universe of information, rich with potential leads for the investigator who doesn't overlook the possibilities. Take for example something as simple as a receipt from a grocery store. Look at everything on the receipt. It will not only list the items purchased, but it will tell you the specific store, the date and time of purchase, and which cashier the customer went through to make the purchase. That type of detail cuts through a lot of time when you need to show a cashier a lineup.

Pick up the nearest mass-produced item. It might be a soda can, a pack of cigarettes, or a CD. Somewhere on that item is at least one set of alphanumeric codes. When it comes to items like beer and soda, which are sold in cases or six packs, the numbers on the can contain volumes of information and, with a little persistence, an investigator can find out when that can was made, packaged, shipped, and delivered, and to what store.

Now-retired Miami-Dade Police Department investigator William Sampson did so much research into product tracing while working some leads for homicide detectives that he wrote a textbook on the subject called “Developing Investigative Leads Through Product Identification and Coding.” Although published in 1995, his work is even more applicable today than it was 10 years ago.

“What PIC can do,” Sampson says, “is help the investigator generate leads by matching up dates and times, corroborating testimony, and even identifying movement of the victim and suspect. In law enforcement, we’re used to processing paper products for fingerprints and then discarding them or storing them without any further inspection. We’re often missing a wealth of information.”

The amount of information on printed matter can be significant. Credit card receipts helped investigators track Ted Bundy across the country. A Winn Dixie grocery store receipt helped destroy the alibi of a subject charged with killing a Dade County parole officer in 1982. He stated he had been shopping at the store at the time of the murder. A search of his garbage turned up the receipt, which had the time of his purchase—four hours before the time of the murder.

In another Dade County murder, the purchase of a shovel had to be hand searched by investigators. The subject had told them in his confession that he had purchased the shovel after the victim's death, when he decided to bury the body. But when the receipt was finally located, it was revealed that the shovel was purchased before the murder. If you're attempting to prove premeditation, that type of detail is priceless.

Quantity Control

For cops to understand the value of product DNA, we have to put ourselves into the mindset of the manufacturing industry. In law enforcement, especially in investigations, we don't have a "work product" that can be counted each particular day. We might solve a crime in three hours, in one week, or in two years. At a bottling plant, however, there are people in charge of knowing just exactly how many units were produced per plant, per day, per shift, and per hour. In addition, it becomes necessary for such companies to keep close track of what leaves their plant, on what trucks, and where it is going.

Such control can be achieved because every item produced at a particular plant bears a code that identifies it as coming from that particular facility. That code can speak volumes if you know how to read it.

Consider this information provided by a customer service rep at Pepsi. “Our freshness date can give you a starting point for tracking a bottle. First, there are a series of digits (Oct. 9, 2004, would read ‘10094’) and under that is the exact time in military time that the product was made that day. A lot of people know that. What many people don’t know is that next to that military time is a two-letter code telling us what plant the bottle came from.”

From that two-letter plant designation, the rep explained, we can contact the plant itself and obtain specific shipping information, which delivery truck took the bottle, on what day, and to which distribution locations.

Food and beverages are most often shipped in “lots,” and the lot number is usually found somewhere in the product encoding. That means that an investigator can take a single can or bottle and match it to existing cans in the cooler or shelf of a convenience store, if he or she knows what to look for.

When you don’t know how to read the information, find someone who does. The plant manager or production line supervisor is the person you want. He or she is your “decoder.” It is well worth the time on the phone or whatever red tape you have to go through to get this person’s ear.[PAGEBREAK]

Truth from a Bottle

The following is a case study of how a homicide detective used product information to crack a case.

A passing motorist reported a grass fire along an interstate highway in Florida. The responding fire units extinguished the flames and discovered a man's body, partially wrapped in plastic.

The firefighters, of course, called the cops. Investigators were sent to the crime scene, and a matchbook from a Circle K convenience store, a partially melted plastic 2-liter soda bottle, and a beer bottle from a major manufacturer were found in the charred grass next to the victim.

"John Doe" was identified through his fingerprints, but little about how he met his demise could be determined during the initial investigation. That left the physical evidence: the matchbook, the melted soda bottle, and the beer bottle.

The matchbook could not be traced to a particular store. It was a generic Circle K matchbook, and there were 38 Circle K stores in the two nearest counties. The plastic bottle was so melted that no identifying numbers or PIC information could be recovered.

So the investigator looked at the beer bottle. And fortunately, it was a much better source of information than either the plastic bottle or the matchbook. By contacting the beer manufacturer and working with someone in their production plant, the detective learned that there were two distributors in his

county. The bottle was found to have been distributed in the north end of the county (where the victim and a nearby Circle K were located).

The matchbook and the information that he gained from the bottle's PIC information led the detective to play a hunch. He bypassed checking the distributor to see what store the bottle went to, though that could have been done. Instead, he decided to check the Circle K store closest to the victim's home address.

Within 12 hours of clearing the scene, the investigator took the bottle to the Circle K and compared the code on the bottle to several bottles in the store's cooler. Indeed, the other bottles of that brand bore the same lot number in their codes.

The PIC information on the bottle had led him to the right Circle K. He asked for the store's surveillance tapes. Lo and behold, the victim was seen clearly on the tape talking to another male.

Leads were piling up. The cash register journal tape was checked for the time frame indicated on the video and a beer purchase was discovered in the journal. The store clerk recognized the other male, a frequent customer, and gave some good background on him.

So the detective paid him a visit. There, he discovered plastic sheeting identical to that found wrapped around the victim in the bed of the suspect's pickup truck. In addition to the plastic sheeting, two more beer bottles were found in the truck, with the same coding as the bottle found at the crime scene.

The subject later confessed, saying that he had been drinking beer with the victim and they had gotten into an argument. He shot the victim, wrapped him in plastic to avoid getting blood in his truck, and then dumped him.

This is an excellent example of how good interviews, logical investigation, and circumstantial evidence can be integrated to create successful results. In this case, the PIC evidence led the investigator to the store where the beer was purchased and sound police work did the rest.

Product codes by themselves won't magically solve crimes, just as a fingerprint or even a DNA hit won't get you a conviction by itself. Consider using product codes as a new dimension in the framework of your investigations. They can open doors to new leads, to establishing times, dates, and locations for people and items. When you see a piece of printed matter or manufactured item, you hopefully will see it not as a piece of trash, but as a the tip of an iceberg with a vast store of information "underneath."

This is an area of criminal investigation that has long been overlooked, and it can help us bring many aspects of our cases into focus. Coupled with sound investigative techniques and skillful interviews, understanding and using product identification codes can be an invaluable tool for investigators.

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