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IBIS: Fingering the Felon

A n officer stops a car for a traffic violation and asks the driver for identification. The man says he must have left his wallet at home, but his name is John Smith and he lives at 222 Any Street. The officer nods, then pulls a compact device from his belt and asks the driver if he minds undergoing a fingerprint scan. The driver, who has heard about these scanners, grudgingly extends his finger, muttering that his name is really Bob Jones and he lives at 333 Some Street.

According to Lt. Steve Duke, word about these scanners is on the street, at least in Ontario, California, where officers began using the system in 2003. During its first 6 months of operation, officers used the department's Information-Based Identification System (IBIS) [also known as Integrated Biometric Identification System] 3,737 times to identify 816 individuals and detain 164. In Hennepin County, Minnesota, during the same period, sheriff's deputies used the system 679 times, identifying 110 individuals and detaining 37.

Developed and produced by Identix Incorporated through a grant program of the National Institute of Justice (NIJ), the system scans a subject's finger and generates a forensic-quality fingerprint on the scene, then searches databases to return identification results within 2 to 3 minutes. Without this device, it can take an officer several hours to verify a subject's identity. Both Duke and Robert Hamborg, Hennepin County's program manager, say that in the past, field officers sometimes had to release subjects because of this delay.

"The longer it takes to identify a suspect, the more paranoid that person may become," says Duke, who heads the Ontario Police Department's Administration Bureau, which includes the Technology and Special Projects Unit. He might stand there thinking, 'They're trying to find out who I really am,' and decide to attack the officer or make a run for it. Anytime you can reduce the time involved in the identification process, it's a good thing."

"Suspects give false identities to officers on the street," Hamborg says. "Establishing true identity can create a substantial amount of additional work. Also, the wrong person could be released from custody because of confusion about identity. We are looking to IBIS to alleviate these problems. The technology should increase law enforcement officer safety and speed up identification."

Using a fingerprint identification system to speed up identification could prove beneficial not only to law enforcement, but also to average citizens, Duke explains. "We recently stopped a man who said he left his license at home. When the officers just ran his name, the search turned up an arrest record under his name and address. The officer asked him if he minded using IBIS, and the suspect said no, of course not. It turned out that his prints did not match those associated with the arrest record, so IBIS proved he was not that person. It turned out the man's brother had been arrested and had given his name. We were able to swear a warrant out against the brother for providing false identification information to the police."

According to Duke, Ontario gives all potential suspects—like the man mentioned above—the option of refusing to have their fingers scanned, but no one did in the first 6 months of use. If the subject agrees, he or she places a finger on the officer's small handheld scanner. The officer can also tilt the device to use a small camera to photograph the subject. Duke explains that Ontario officers use the photos when they need to identify more than one person. For example, he says, they might break up a gang fight and line everyone up on the curb. An officer starts moving down the line, scanning the first gang member's fingerprint and taking a picture. While he moves on to the second person, the system begins processing the first fingerprint. "When you get to the end, you can use the pictures to go back and say 'We have positive identification on you, and you, and you.' " Officers erase the photos and fingerprints after they complete the identification process rather than store them in a database.

The Ontario Police Department has plans for a voluntary fingerprint database (separate from the police database) that could be used to identify people with

Alzheimer's disease and other kinds of dementia who are lost. If officers found a protected individual wandering the streets, they could use the system for identification and call a family member or appropriate care facility.

This represents just one potential use, Duke says. "Like everything else, technology changes constantly. Just when I think it's done, then someone thinks of more things that the IBIS could do."

"Additional funding is being used to improve the product and to keep current with evolving technology," says Joseph Cecconi, NIJ program manager for the project, originally called Squad Car Unit Identification (SQUID). Other possible improvements and applications suggested by Duke, Hamborg, and Cecconi include—

■ Adding a database of latent fingerprints from local crime scenes.

■ Adding a facial recognition component.

■ Using a fingerprint system as a mobile booking station.

■ Identifying people entering and leaving detention facilities.

■ Improving internal airport security.

Adapting to changes in wireless technology and other improvements kept IBIS in development for several years. Both Ontario and Hennepin County began testing in 1999 and went fully operational in early 2003. Even after its system became operational, Hennepin County upgraded its fingerprint database and received more scanners. Hamborg says the process had glitches, including a hard drive failure. However, everything worked out and Hennepin County distributed scanners to an additional 20 partner agencies in the Minneapolis-St. Paul area. Hennepin County shares its fingerprint scanners with patrol officers at 25 local law enforcement agencies, the Minnesota Bureau of Criminal Apprehension, and the Bloomington police at the Mall of America. Ontario also shares its units with a number of neighboring jurisdictions.

"We already were sharing information, and now, by sharing the fingerprint scanners, we all have the potential to identify people right on the spot," Duke says.

That potential exists at least in part due to the ease of use incorporated into the system design. The scanner's pistol grip allows for one-handed operation, and its wireless connection means officers need not return to their squad cars to access databases. Its design makes it usable by officers mounted on horseback, bicycle, or motorcycle, and its weight of less than 2.5 pounds includes the battery pack, which allows for 3 hours of continuous operation and 14 hours of stand-by operation. Duke says learning to use IBIS takes only 2 to 3 hours, and his officers like that it does not compromise their ability to defend themselves.

Because of that ease of use as well as other factors, Cecconi says NIJ hopes that this program "will result in more widespread use by law enforcement agencies throughout the country." Its present cost and durability might make it prohibitive for some law enforcement agencies, but that could change with future versions.

For more information on the IBIS program, contact Joe Cecconi, 202–305–7959 or cecconij@ojp.usdoj.gov; Lt. Steve Duke, 909–395–2711 or sduke@ontariopolice.org; or Robert Hamborg, 763–525–6203 or Robert.Hamborg@co.hennepin.mn.us.