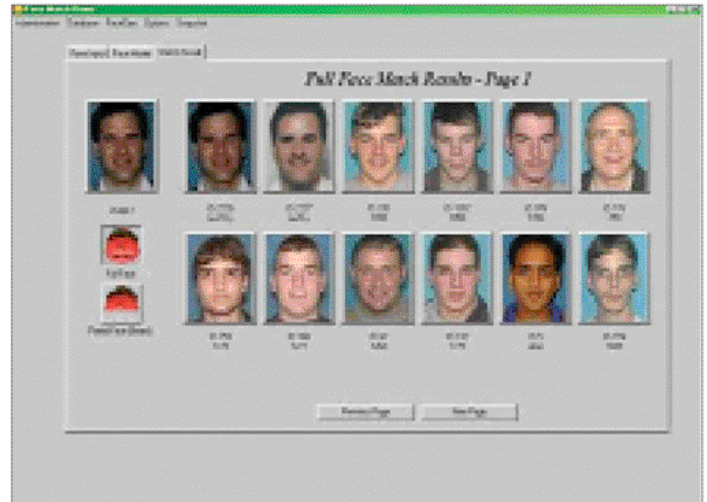# What's in a Face? *Project Bluebear*

Like other forms of photography, the mug shot is going digital. These classic photographs of arrested individuals, which have piled up in Canadian police department mugbooks by the millions, are now being entered into police services electronic mugshot databases. That prospect offers much more than improved record keeping. It raises the possibility of identifying an unknown person with technology that can search rapidly through pictures for the right face.

On November 27th, 2003, that possibility became a practical reality for Forensic Identification Officer Rae Morrell of the Chatham-Kent Police Services in southern Ontario, when officers there suspected a man in custody of giving them a false name. Morrell ran the man's photo simultaneously through the Chatham-Kent, Windsor and York Regional police mugshot databases using the Internet. In 11 seconds, the computer searched through 118,000 mug shots and located the man's face and correct identity in the York system.

This first "live" hit was made through pilot **Bluebear**, a project suggested, developed and sponsored by the Canadian Police Research Centre. The work was an operational test of VS-Ident, facial recognition software developed by Ottawa-based VisionSphere Technologies. This product has distinguished itself from other computer-based strategies for facial identification.

"There is nobody else that has done what we've achieved", says VisionSphere CEO Sal Khan. "It is the difference between old-fashioned, mainframe computing, where you centralize everything, as opposed to the latest trend, which is distributed computing or peer-to-peer computing. VS-Ident can give the Canadian law enforcement community a real edge in tracking down suspects, because it facilitates secure, fast, easy collaboration and information-sharing using the Internet."

Project **Bluebear**'s goal on searching police mugshot databases is to continue expanding that capability to incorporate the four or five million mug shots contained in local police databases across Canada. Essentially creating a virtual national mugshot system

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> *"It's another investigative aid. The tools that are there are valuable, and will be valuable in the future. Without the Canadian Police Research Centre, this forward-looking application of facial recognition technology would not have been explored and put to practical use.*
> *Thank you CPRC!"* **— Mr. Rae Morrell**

controlled and maintained by the local police services. The police need to share data with one another; **Bluebear** has been designed to operate over these networks.

This 'distributed search' capability adds a new dimension to the use of facial biometric data for law enforcement. It also has promise in other security applications such as allowance of surveillance camera images, terrorist watch lists and missing persons.

As demonstrated in Chatham-Kent, this 'distributed search' capability can quickly and economically resolve a search for a suspect in seconds.