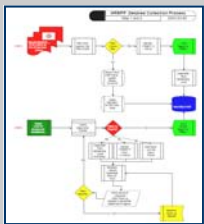


# iBridge Success Story: The High Risk Missing Persons Project

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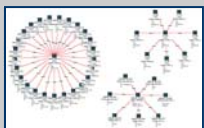
The HRMPP  
Information  
Processing flow.



Part of the Data  
Collection Plan  
showing the detailed  
collection process.



One of the duplicate  
person charts  
generated from  
iBridge that was used  
to track the 1146  
duplicate person  
entries.



This iBridge -  
generated chart  
shows duplicate  
locations from 3  
datasets.

In January 2003, the Royal Canadian Mounted Police (RCMP) initiated a project to identify and analyze all high-risk missing persons and unsolved homicide cases in Alberta, Saskatchewan, and Manitoba. The principle goal was to determine if any cases were "potentially linked" and, if possible, identify offenders. The High Risk Missing Persons Project (HRMPP) was a joint effort between the RCMP and the western Canadian municipal police services of Edmonton, Calgary, Regina, Saskatoon, Prince Albert and Winnipeg.

The project used a phased approach to collect, collate and analyze thousands of current and historical police records from a variety of police information systems, including ViCLAS (Violent Crime Linkage Analysis System), CPIC (Canadian Police Information Center), and E&R (Evidence and Reports). Other files stored in paper format -- some of them decades old -- were also included. The project's strategy aimed to identify persons, locations, and vehicles that existed in more than one case file. So-called "duplicates" were to be flagged for further analysis and follow up. The principle challenge was organizing and formatting data so that a technology-based solution could be deployed, facilitating the identification and analysis of duplicate records.

Faced with this information management task, Cpl. Brad Siddell of the RCMP, the project's Information Manager, approached Trinus Technologies Inc. Trinus Technologies had proven experience working with RCMP and police information systems on past projects, including the 2002 G8 Summit Security Joint Intelligence Group.

Trinus, a certified i2 Inc.® Partner, selected i2's Analyst's Notebook® software to establish connections with the project data. However, a method was needed to rapidly chart all records from multiple files in Analyst's Notebook. One solution could have been to perform manual imports from the case files. Looking for a more dynamic solution, Trinus chose i2's iBridge to connect directly to investigation data tables. iBridge's live connection to databases allowed analysts to expand and explore on entities in search of relevant investigation data.

Trinus developed a custom plug-in that allowed iBridge to connect to the project's non-native databases -- much of the information was stored in tables hosted on Borland's® Interbase data engine that is not directly supported by iBridge. An important feature of the plug-in allowed users to concurrently open multiple connections to several databases using one iBridge configuration file. Ultimately, Trinus were able to standardize a single iBridge configuration file to perform all search functions. This saved operators hundreds of hours and simplified the technical support of the project.

While the iBridge solution was being developed and tested, Cpl. Siddell directed a team of ten data entry personnel to convert paper-based investigation files into electronic format. This task provided its own challenges, as many files were located in cities and towns some distance from any project office. To assist with this process, Trinus Technologies developed a simple data entry tool that could be used in remote locations. Once entered, simple text files were bulk-imported into a database at the project office using a Trinus-developed import utility. Tens of thousands of records were converted. Remarkably, it was the first time any attempt had been made to convert paper-based "cold cases" to electronic format.



An example of a Duplicate Businesses chart.



A sample Task report used to track the progress of a duplicate check by an analyst.



The Logon screen for the custom iBridge plug-in that was integrated into Analyst's Notebook.



Some of the printed reports used during the investigation.

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The final major information management hurdle was to address records from other police data sources. While these sources contained a wealth of information, much of it was stored in legacy "mainframe" systems. Technology issues aside, the laws that govern the release and use of this information prevented a direct connection with iBridge. To overcome this challenge, a bulk record dump was requested from the host agency that was suitably vetted. Trinus Technologies then customized an import routine that placed the records directly into a compatible database at the project office.

Analyzing the multiple databases of these data-gathering efforts using iBridge resulted in 1146 person matches. These duplicates were further analyzed, and in some cases investigated, to eliminate legitimate occurrences. For example, it would be natural that a police officer's name would appear in more than one case. At any given time, four analysts experienced in the operation of Analyst's Notebook worked on this aspect of the project.

The key finding of the HRMPP, according to the final report, was that:

"A combined analysis has been conducted on 82 cases. The analysis was categorized on the basis of Unsolved Homicides and Missing Persons reports. Both of these categories included victims whose lifestyle, behavior, profession, or circumstances, placed them at high risk to be a victim of violent crime. One of the most significant achievements or findings of the HRMPP was the potential linkage of what was labeled the "Priority 5 cases" [five suspicious deaths in the Edmonton, Alberta area that were thought to be connected].

The results of the HRMPP were summarized in the executive report:

"The accomplishments of the High Risk Missing Persons Project are significant. All cases identified that met the selection criteria and were included in the Phase Two analysis portion of the project were examined. Due to the HRMPP analysis, a serial offender was recognized and believed responsible for 5 of the criteria cases."

Cpl. Siddell went on to say that:

"As a result of the cross comparison of PERSON (records) between these investigations (using iBridge and the Plug-in), 1146 person matches were identified. Without iBridge, there was no other method available to the RCMP to efficiently check for duplicates."

From an information management perspective, the significance was not that duplicates were found, but the speed and efficiency with which they were found and addressed. iBridge and Analyst's Notebook accomplished in days what could have taken many weeks to perform.

The final report contained over 200 Analyst's Notebook charts that were generated with iBridge. When combined with over thirty thousand of pages of database record reports, the final product became one of the most comprehensive, portable, and searchable record stores on major crimes in western Canada. The Joint Management Team responsible for the oversight of the project have labeled the HRMPP initiative a complete success.

Aside from the operational success of the project, there are significant technical benefits that will carry forward to future projects. The iBridge plug-in is already being used on other high-profile investigations and its success has sparked further interest in a national iBridge solution for the RCMP. The HRMPP demonstrates that applying sophisticated charting technology in new and innovative ways can greatly improve the quality and efficiency of complex investigations.