



Document Management in Intelligence Operations

- Intelligence information received in many different forms must be easily accessible to analysts if it is to be of value in operations.
- JIIMS information management tool automates many of the steps in data collection and format standardization, providing a structured data base that can easily be searched.
- A prototype version of JIIMS has been fielded.

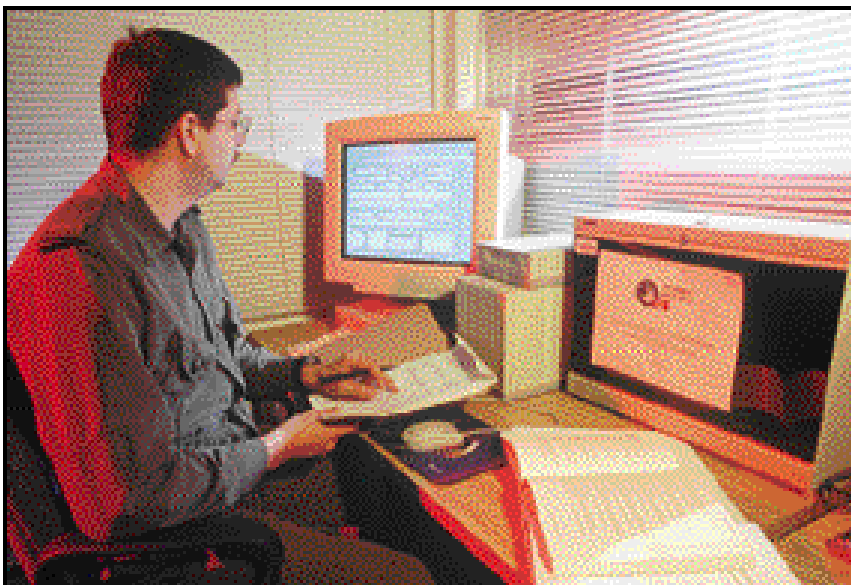
Information-Management Tools Needed

The Intelligence branches of modern armies and law-enforcement agencies have information at their disposal from a great many sources: reconnaissance assets under direct control, surveillance devices such as satellites whose data may be disseminated by outside agencies, intelligence reports and pre-existing maps and background material. In principle present-day communication and information-display systems allow commanders on the ground to make appropriate use of all of the information that is available to them and that they are

aware of. What is often lacking in operational contexts, however, are the information-management tools needed to ensure that the right information is available, where and when it is needed.

Providing User-friendly Interface Structure

DRDC Valcartier Joint Intelligence Information Management System, or JIIMS, addresses this complex problem. Using an approach based on Internet/Intranet techniques, JIIMS manages a store of “documents” — which may be highly structured spreadsheets or data bases, pure-text material, digitized photographs, sound recordings, video clips, etc. — extracting from each its essence and storing this “meta-information” in a relational data base that can be searched and accessed in a variety of ways, with appropriate links back to the original form of the information. Much of the system’s value come from its ability to bring structure to information that is inherently unstructured; that is, information that has been gathered in different contexts for a variety of purposes and that often lacks the commonality in organization or vocabulary that is needed to allow comparison or correlation of the content.



JIIMS developers worked side-by-side with future users of the system, in order to provide easy-to-use tools that are tailored to real military needs.

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Early versions of JIIMS allow users to insert and register new information as it becomes available, to search source information according to its content and attributes and to monitor and control the dissemination of information in hard-copy and electronic forms. Web-server-like functions allow many users to access overlapping information subsets simultaneously. Although JIIMS is highly structured internally, it imposes few constraints on its interface with users, who may choose among about 40 well-known commercial office-automation packages to access, view and manipulate information, depending upon local conditions and preferences. Both C++ and Java object-oriented programming languages have been used to personalize the user interface even further.

A Modular System

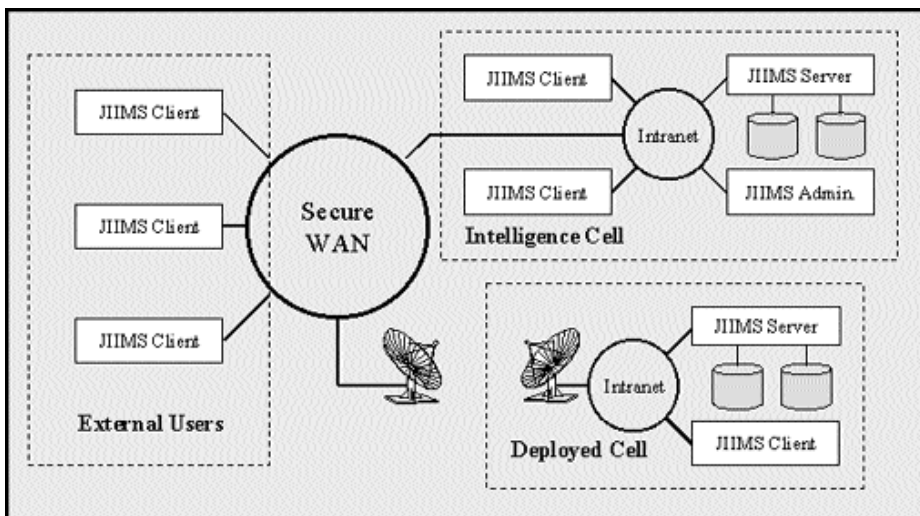
A highly modular system, JIIMS can readily accommodate such enhancements as the use of artificial intelligence techniques for the classification of incoming documents or the identification of relevant material from the data base. Its modules can also be configured for use in the field or in garrison, from unit level to headquarters, and developments of the system will eventually

integrate all interconnected modules into a seamless information continuum, easy for all users to update and access.

Cooperation

The Joint Intelligence Information Management System is an excellent example of cooperation among DRDC Valcartier, the Canadian Forces and Canadian industry. The need for such a system was recognized both by DRDC Valcartier, through a 20-year history of work in automated aids to command and control, and by the army Intelligence Branch. The study is sponsored by the Director of Land Requirements (DLR) and by the Project Office, Joint Command and Control Information System (JC2IS). Much of the analysis and implementation work was done by the DMR Consulting Group, Inc.

The capabilities of the system, as it evolves, are evaluated under realistic conditions by the Director General Intelligence Staff in Ottawa and by the Intelligence Company of the 1st Canadian Division, who currently are using one garrison and deployable JIIMS systems in day to day operations. Feedback from this real-world application will serve to fine-tune JIIMS capabilities.



Upon registration, information of all forms is held by the JIIMS server, where it can be searched and retrieved in a variety of ways for any end-use.

For more information

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