



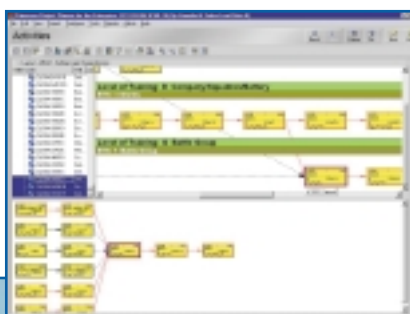
Military Readiness: SOFTWARE SOLUTION

*Project management software streamlines
readiness assessment process for the Canadian Army.*

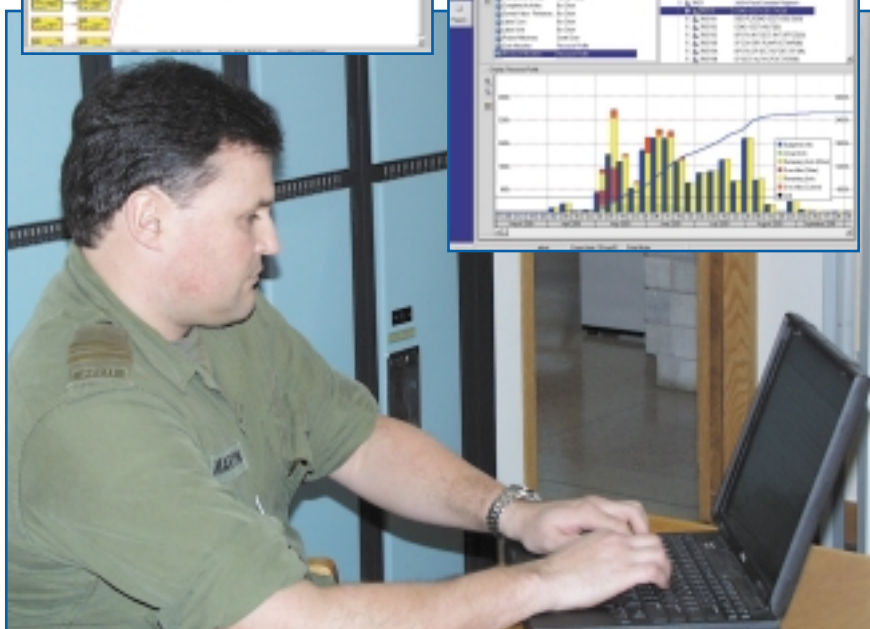
By Jenna Ward Brennan

The Canadian Army has pioneered a new way to accurately and quickly gauge its present day readiness, make careful projections of needed capabilities, and create mission-training plans across its entire force. Increasing joint operations, the increasing likelihood of “little notice” deployments, and the increasing complexity and sophistication of the skills needed in the Army, have imposed these requirements. The Army’s new project management software manages multiple large-scale projects at enterprise level.

Phil O’Neill, Ph.D., an operational research scientist in Canada’s Department of National Defense said, “I looked at the commercial software that was available and came to the conclusion that it was rapidly becoming very well suited to the task of military readiness assessment. It was clear that project management software could provide a much higher level of capability for estimating the time and overall impact of undertaking and sustaining military operations.” A fellow pioneer of this emerging capability, Canadian Army Maj. Nick Martyn, said, “We have dramatically improved our ability to evaluate readiness and commit military forces. For example, the time to create a mission training plan has been reduced from two weeks to 75 minutes. Based on the success of this pilot implementation, we are planning to deliver the system to the entire army over the next two years.”



Sample screen images of Canada’s Department of National Defense readiness evaluation system.



Mission Planning Challenges

Determining the requirements for accomplishing a real-world mission — such as sending a force on a peacekeeping mission to the Balkans and sustaining it — is enormously complicated. Planners need answers to various questions: How many soldiers are needed?

What skills and mix of skills are needed? Where are the soldiers? Are each one’s skills “up to snuff”? If not, how long will it take to get them that way? And, when they are deployed, what soldiers do you put in their place?

Beyond arriving at answers to such questions, planners also need to gauge

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the impact of today's multiple missions — and those under consideration — on the readiness of the Army in the future. These are even more massive and complicated tasks.

Today, this effort is largely diffuse and disjointed. Data are in literally hundreds of databases. Most databases are not interconnected. Collecting data, aggregating it and making it useful — quickly, comprehensively and instantaneously, but only when releasable and as secure as need be — to hundreds of decision makers is both laborious and error prone. Moreover, the nature of the current process makes it difficult to assess the collective impact of multiple missions on the entire force. Finally, the current process cannot be audited easily.

A Promising Solution

A NATO body had asked O'Neill to evaluate existing methods by which defense establishments could assess readiness. He proposed using commercial software capable of tracking multiple hierarchical projects with multiple hierarchical resources; i.e., enterprise project management. The report garnered considerable positive feedback, leading him to develop several small-scale assessments based on his understanding of real missions. The early examples were disappointing, primarily because the software did not clearly depict the interrelationships of projects and their impact on the total enterprise.

However, Martyn got involved in this project and offered O'Neill detailed functional requirements for a conceptual readiness evaluation system. The two looked for software that would provide the horsepower to manage resources on an enterprise-level for an organization at least as large as the 60,000-person Canadian Forces. Among the software tested, they found the Primavera System's Enterprise software the most potentially useful, and they began developing readiness assessments for several missions.

According to O'Neill, the key advantage of Primavera Enterprise is that it supports the development of

training plans for individual missions within a hierarchical framework through which planners can view the impact of each iteration of their plan on the entire organization. The software electronically gathers diverse data from existing databases and electronically assimilates it into a common operating picture that provides complete situational awareness of readiness and sustainability.



Courtesy Primavera Systems Inc.

The Canadian Army has found the Primavera Enterprise software to be an invaluable planning tool.

Demonstrating Proof of Concept

Martyn and O'Neill implemented a prototype and focused on training issues — the heart of resource allocation problems. They developed a sophisticated coding structure that organizes the skills required to perform virtually any type of mission using activity codes, custom data items and project codes. The coding scheme makes it possible to roll up reporting through each hierarchical level of the structure, allowing users to instantly determine organization-wide resource availability and demand.

Planners and commanders can quickly obtain key high-level performance parameters, identify areas of concern and immediately "drill down" to examine the details. They can determine the exact state of readiness of any unit in a matter of minutes.

O'Neill and Martyn also used the

project management system to create a library of planning templates containing the information and instructions frequently used for operational activities — doctrinal statements, procedures, plans and manuals, etc. Primavera Enterprise provides templates in easy-to-use formats, allowing quick and routine access for reference and updating in a matter of seconds. Further, because all users work from a common framework and information base, the accuracy and consistency of the resulting operational documents are greatly improved. Finally, the fact that each of the documents is within a common structure offers the capability to easily determine the impact of a new mission on the overall readiness of an organization.

In addition, the software allows going beyond that which is planned. The planning templates can also track actual activities and events. This allows planners and commanders to "see" whether objectives have been attained. Such tracking data can be used for performance measurements as well as for recording "lessons learned." Also, the Primavera Enterprise database contains a rich source of information that can be exploited for risk assessment and risk management through the use of the system's analytical tools.

The Way Ahead

"For the first time, we have a system that provides an enterprise-wide view of our resources and commitments," Martyn said. "After demonstrating our proof of concept, we found ourselves in a situation where senior officers recognized that we have a solution to a problem that has been taxing them for a long time. As a result, we are recommending an implementation plan that will provide, in its first year, vertical integration in one division and, in the second year, a rollout to the entire Canadian Army involving 5,000 users of the software," Martyn added. TIME

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