# An Environmental Approach

In one of the largest of the Office Communications Systems field trials, 155 integrated terminals were installed in offices of Environment Canada, a federal government department concerned with regulations and policy with respect to the environment.

The trial was implemented in two phases. In the first, 71 terminals were installed at the department's headquarters in the nation's capital. This was later expanded with an additional 84 terminals in locations 2,500 miles away, in Calgary and Jasper, Alberta. Users of the system were mainly managers and professionals, the so-called knowledge workers.

The chosen system supplier for the trial was OCRA Communications, a growing Ottawa, Canada company specializing in the new office automation tools. Such functions as electronic mail, word processing, spreadsheet, database applications and electronic filing were woven into the system and made accessible by each workstation.

The prototype tools, both powerful and easy to use, facilitate the routine aspects of daily office work and allow for more challenging elements of a job to be treated more efficiently.

John Smith-Windsor, manager of the trial, said the phased approach was an ideal approach for a venture of this magnitude. "The first phase was intended to allow us to study and assess the use and functionality of the system in a relatively controlled setting. The lessons we learned were then applied to the expanded trial." Such issues as how the system was being used, where difficulties occurred, and the need to refine training procedures, were analysed, and then fed back into the planning and system design process.

For example, the way in which the system is presented to the user, or the user "interface", evolved after close work during the first phase. The challenge for OCRA was to design an interface which allows experienced workers to work quickly and efficiently, while at the same time providing for the novice user. Most system designers face this problem. A menu driven solution is ideal for the first time user, for it leads him or her patiently through the process. But it tends to be slower than a system which allows the use of function key commands to directly instruct the system to perform a particular task. OCRA chose a function key approach rather than a menu driven approach, but backed it up with an extensive, on-screen help system. No matter where a user is in a program, by calling up a help screen, he or she receives precise instructions as to what to do next.

Mr. Smith-Windsor said one of the most significant results was the degree to which staff in far flung regions of the country now felt "intimately plugged in" to the organization. "Many of the problems of communicating over long distances – telephone tag, delays and wasted time – virtually disappeared overnight."

The value of a feature such as electronic messaging obviously depends on the number of terminals, as well as on the levels and functions of those people who are connected. "With 155 terminals, and with proper care in the choice of staff who were equipped with workstations, we were above the 'critical mass' necessary to ensure a well-used, productive system," Mr. Smith-Windsor said.

Experience in installing one of the largest systems of its type has helped the OCRA team of professionals become experts in the area of office automation. This expertise is offered to the market in the form of systems integration services encompassing hardware, software, communications, training and support, and office automation consulting. As well, the integrated office system developed and tested during the field trial is now being marketed under the name *Colleague*. George Arkeveld, Executive Director of OCRA said, "The pilot and field trial have been invaluable to the development of Colleague in that there is a significant difference between what a programmer would like to see in a system and what the user requires.

"The pilot and field trial have therefore given a product which is developed by users. In the competitive area of office automation software, this user involvement will give us the winning edge."

# The Best Defence

Canada's Department of National Defence, the site of one of the Office of the Future field trials, has implemented its integrated office system in the financial services area of the department.

The trial began in October, 1982 with an extensive planning phase. Interviews with middle and senior management and extensive questionnaires were used to help in planning and systems design. By 1984, initial hardware was in place, supplied by the Canadian-owned XIOS Systems Corporation.

The Department of National Defence office automation trial is using a unique integrated system from XIOS known as *Renaissance*. Renaissance, based on the UNIX operating system, integrates non-communicating office products and systems into a single network which can be used to communicate information. At each workstation, users can create and edit documents, send and receive messages, and distribute and share correspondence with others. It also features a calendar, and allows for access to other systems such as internal and external databases. Each Renaissance node can accommodate up to 20 users and peripherals, and is capable of supporting a variety of personal computers, such as IBM, Wang, Displayphone, terminals such as the DEC VT 220, as well as word processors and printers.

As with some of the other trials, an initial decision was made to implement the system in a phased approach. In its final phase, the system will include up to 130 terminals at the headquarters offices in the nation's capital, and in Winnipeg, 2,000 miles away.

During 1984, an initial pilot system was configured and installed. An in-depth evaluation of system performance and user reaction was then fed into the planning process and to XIOS for an expanded version of the system.

Maj. John Macko, Manager of the DND trial, says that it is important for organizations first getting involved in office automation to begin with a small pilot, before implementing a large system. "The pilot is invaluable, for it can be used to evaluate system architecture and functions, to gauge reaction and acceptance, and then to use the results of that evaluation to help design an expanded version."

"An important issue is training, Maj. Macko said. "We found that at the outset, there are varying degrees of computer literacy, and training courses have to be made flexible to accommodate different skill levels and different learning speeds. Handholding, particularly at the outset, is a feature which should be built into the training cycle."

During 1985, the pilot system will be expanded to full operational status, and the system will evolve to include additional terminals both at departmental headquarters in Ottawa and in regional offices in Winnipeg, Manitoba.