## Computers for European market

Northern Telecom has announced a new family of computer and office information systems for the European market, called the Vienna Family. It combines a fully compatible range of hardware, the most universal communications standards and the most widely used operating systems and software languages.

The Vienna Family, built around a choice of three powerful data processing units, includes a range of intelligent terminals and a selection of printers and other peripherals, all linked by high-speed local and wide area communications networks.

The system was developed and is built in Europe by Northern Telecom Data Systems, a subsidiary of Northern Telecom plc in London, England. It will meet the demands of users in office automation, data processing, personal computing and local and remote communications.

The new line incorporates three sharedresource computers with compatible hardware and software; a multi-function terminal available at four levels of capability, including a high-resolution colour display; a range of seven printers including high-speed, letter-quality, and



Close-up of the Vienna Multi-function terminal showing the "soft" keys on the top row which are used to overcome repetition of frequently used command strings. The low-profile keyboard is available in five national forms: French, Austrian/German, Italian, English and International.



The Vienna multi-function terminal has a choice of black and white or colour screen.

ink-jet models; and a choice of magnetic disk storage.

Multi-function terminals within the Vienna Family of systems are available now, and shipments of shared-resource computers will start in June.

The Vienna Family of systems adheres to Northern Telecom's OPEN World approach (see *Canada Weekly*, special issue January 1984). They are built around industry standards in communications and emerging industry standards in operating systems and software languages.

"The Vienna systems adopt an Intel standard in processor chips and a twin MS-DOS/Xenix standard in operating systems. Communications standards are based on the ISO (International Standards Organization) model for world-wide communications standards, including support of the X.25 protocol," said Barry Eames, vice-president, Europe. "Just as important, the Vienna Family includes support of SNA (Systems Network Architecture) which makes it compatible with the IBM environment," he added.

Finally, local Vienna systems are linked by a local area network. Applications portability is ensured through a common language standard.

As part of the Vienna Family, Northern Telecom also announced a processing unit that will enable users of existing Northern Telecom distributed data processing systems to have access to Vienna functions and capabilities.

There is almost unlimited flexibility in the way in which Vienna systems can be

configured, giving system sizes and functions that range from "stand-alone" personal computing to national and international networks. Prices start at \$5 000 (US) for a multi-functional terminal.

The development of the Vienna Family is part of a major Northern Telecom expansion of its operations in Europe. The company recently announced the establishment of a product development centre in Hemel Hempstead, in Britain, as well as a new manufacturing facility there. Northern Telecom data systems, with an installed base of more than 4 200 systems in Europe, operates from 60 offices and service centres in nine European countries.

Northern Telecom, the second largest designer and manufacturer of telecommunications equipment in North America and sixth largest in the world, employs more than 39 000 people throughout the world, has research facilities and 46 plants in Canada, the United States, Britain, the Republic of Ireland, Malaysia and Brazil.

## First summer institute in China

The University of Victoria (UVic) has established Canada's first Summer Institute for studies in China at East China Normal University (ECNU) in Shanghai. UVic and ECNU, which have a special exchange relationship, are involved in several joint research projects in education.

The institute is offering UVic credit courses in Chinese language studies from May 11 to June 29, and education and society in China from July 1 to August 21.

Educators, students and anyone interested in Chinese education, society or language can register for the institute. Those not qualified to receive UVic credits can take the programs as noncredit students. All registrants will live in residence at ECNU.

"It's a marvellous deal for anyone interested in China," says Dr. Jan Walls, director of UVic's Centre for Pacific and Oriental Studies.

"We welcome people who wish to start at the beginning in the Mandarin language program," he said. "Those with a firstyear or second-year university level of learning the language will be given a placement test upon arrival at ECNU and will be placed at the appropriate level."

The 20 Canadians chosen will attend classes at ECNU five-days a week for seven weeks.