FULLY INTEGRATED ON-LINE REAL-TIME
LIBRARY SYSTEM FOR NP

by Mrs Caroline Lob, Asst Librarian

On 22 Nov 85, NP signed a purchase agreement with Sime Darby Systems for a fully integrated library computer system covering acquisitions, cataloguing, serials control, online public access and circulation.

At a cost of $560,000, this purchase was made after a very thorough evaluation exercise designed to ensure that the functional requirements of the Library were met. The system has also received support from the National Computer Board.

PICK Operating System

The system comprises the fully integrated URICA software package developed by Amalgamated Wireless (Australia) Ltd (AWA) of Australia, and runs on a 32-bit Microdata Sequel 9000 super mini-computer manufactured by McDonnell Douglas Computer Systems Company. Integral to the computer is the PICK Operating System. The state-of-the-art capabilities of the operating system, coupled with its relational approach, makes it extremely suitable for interactive online library data processing.

Customer support services for the entire system will be provided by Sime Darby Systems. The company will also be bringing in expertise from the Australian headquarters for its URICA Regional Software Centre which will serve customers in the region.

Although NP Library was the first in Singapore and the ASEAN region to implement an online Circulation Control System developed in-house in 1983, it has decided to upgrade to the new system in order to provide the most rapid and cost-effective solution to implement its computerisation programme, which will cope with the accelerated pace of development in the Polytechnic and, ultimately, to improve efficiency and productivity in all areas of library operations.

The full implementation of the system is expected to take a period of six months. At the end of the period, the Library will have 30 terminals, 12 of which will be for public access. The system is expandable to 5MB of main memory and will support 208 terminals, adequate to meet the Library's future requirements.

Total Information Service

For staff and students of the Polytechnic, the main impact will be felt when they are able to have immediate access to the Library's total resources through the On-line Public Access Catalogue (OPAC). This is no easy task, as the NP Library catalogue currently comprises over 73,000 volumes of books, 848 journal titles, 25,809 items of audiovisual media and a wide range of microcomputer software. A total information service will thus be provided as users can make not only the usual enquiries for books, journals and other materials, but also check on their loan or fine records, as well as place reservations for titles not immediately available - all without the assistance of library staff.

Apart from this, sophisticated information searches can also be performed with the use of a high level user-oriented retrieval language called 'English', a utility available only on this system.

Instant Access to Information

For Library staff, the effect of computerisation will have its main impact on the Cataloguing, Acquisitions, Serials and Circulation Sections. For the first time in Singapore, these functions will be performed in an on-line real-time mode, thus providing users with instant access to information. In particular, on-line cataloguing will eliminate the need for tedious preparation of cataloguing worksheets before information is entered into the system.

The circulation module will enable the Library to extend across-the-board circulation functions to all service counters and material types, including books, journals, media and the reserve book collection. Daily back-up can be performed on any of the staff terminals without the need for any console unit, a convenient facility unique to the URICA system.

Future local area networking within the campus, carrying out the concept of office automation to its full potential, will also make the Library's database accessible from any location on campus.

Link-up with SILAS

Users can also look forward to accessing the national bibliographic database, comprising collections of major libraries in Singapore, through a communication networking capability which will enable the system to link-up with the Singapore-based Integrated Library Automated System (SILAS) network, when it is implemented in late 1986. This system link-up will facilitate resource sharing, collection development and inter-library loans.